Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

AURORA
ENERGY RESEARCH

PJM's Reliability Backstop Auction: considerations and risks

February 19, 2026

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

Introduction

Context: This report is published in February 2026 in response to ongoing reforms in the PJM capacity market, and specifically the proposal for a Reliability Backstop Auction.

- Over the past several years, PJM has seen rapid increases in load forecasts, limited amounts of new capacity, and a corresponding increase in capacity and retail prices. PJM and member states now face the challenge of expediting new capacity without further increasing rates for non-hyperscaler customers.
- In response, the White House National Energy Dominance Council and all 13 governors of PJM states issued a "Statement of Principles" to PJM. Primary among these principles was a Reliability Backstop Auction (RBA), in which new capacity resources receive up to 15-year contracts funded by new data center large loads.

Analysis: The report examines the proposed structure of the RBA to assess:

- Its ability to address the fundamental drivers of PJM's supply-demand imbalance.
- The likelihood of the RBA to move from a one-time intervention to a model for (all) future capacity additions.
- The outlook for closing the supply-demand imbalance with existing proposals.
- Risks – particularly higher costs – associated with a potential transition to a capacity auction format that is bifurcated between new and existing generation.

Conclusions are covered more fully at the end of this report. In summary:

- The analysis finds that the RBA as designed will not procure the amount of capacity required by 2030 – up to 24GW, based on PJM's load forecast – and is thus likely to set the stage for further intervention.
- If the RBA evolves into a more permanently bifurcated auction between new and existing capacity, deliberate market design choices are required to avoid unintended higher costs for consumers.

Disclaimers

- This report was independently prepared by Aurora Energy Research. It was not commissioned by a third party.
- **Aurora does not criticize or advocate for any specific policy** or market design change but rather aims to provide data-driven insights that support policymakers and market participants to make better-informed decisions.

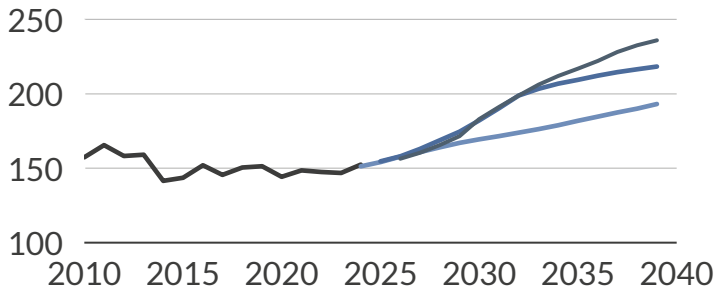
Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

PJM faces dual concerns of reliability and affordability as load growth has not yet been met with sufficient new generation capacity

AURORA

PJM's load forecast has consistently risen, increasing the need for new generation

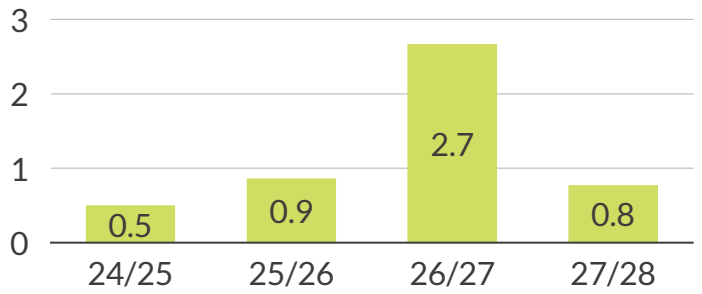
PJM peak load forecast, GW



- PJM's latest load forecast anticipates ~30GW of load growth by 2030, with peak load increasing from 156GW to 183GW.
- Most incremental load stems from new data center large loads, with additions expected across the PJM footprint but concentrated in the Dominion and AEP territory, among others.
- PJM and transmission owners' forecasts have increased each year since 2024, reflecting an accelerating data center growth projection.

At the same time, new capacity additions across the footprint have not kept pace

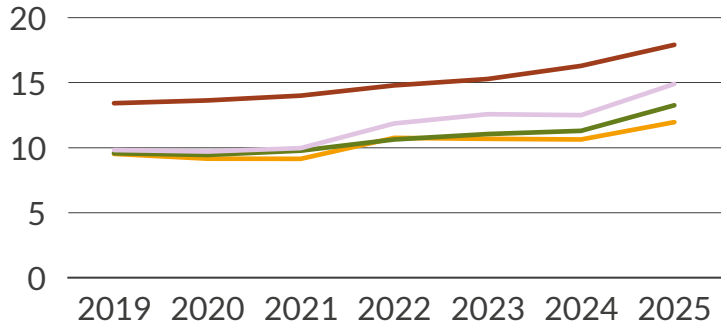
PJM new capacity additions,[1] GW UCAP



- Meanwhile, PJM has added, on average, merely ~1GW UCAP[2] of new capacity over the previous four Base Residual Auctions. This represents the majority of new (derated) capacity expected online through 2028.
- As a direct result of this tight supply / demand dynamic, capacity prices increased from ~$30/MW-day to ~$270/MW-day in the 25/26 auction and have remained elevated since.

Retail rates in the PJM footprint have increased steadily, in part due to wholesale costs

Annual retail electricity rate,[3] ¢/kWh (nominal)



- Retail electricity prices have increased throughout the PJM footprint over the past several years. In New Jersey, for example, average annual prices increased from 13¢/kWh in 2019 to 18¢/kWh in 2025
- EIA estimates ~60% of retail bills stem from generation, vs. ~40% from transmission & distribution.[4]

PJM and its member states now face the challenge of expediting new capacity without further increasing rates for non-hyperscaler consumers. On January 15th, 2026, the 13 governors signed a "Statement of Principles Regarding PJM" to direct PJM to address their concerns, primarily focusing on a "Reliability Backstop Auction".

Historical — PJM 2024 forecast — PJM 2025 forecast — PJM 2026 forecast

NJ — VA — OH — PA

1) Including both new generation and uprates to existing facilities. 2) Unforced capacity; derated for reliability. 3) Average price to ultimate customers across all sectors. 2025 data reflects data through November. 4) Nationwide average from the EIA Annual Energy Outlook.

Sources: Aurora Energy Research, PJM, EIA

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

PJM has acknowledged and is beginning to address challenges to new capacity; the White House and governors' "Statement of Principles" addresses a subset

AURORA

Major barriers to new capacity additions in PJM

Topic	Summary	Ongoing initiatives; "Statement of Principles" (SoP) coverage
Generator interconnection	▪ Queue backlogs slowed new entry; PJM has completed significant reform. ▪ New generators still face the risk of prohibitively high interconnection costs.	▪ Expedited Interconnection Track proposed via CIFP. ✓ **SoP:** Partial. Urges PJM to "accelerate ongoing generator studies," but does not address interconnection costs.
Permitting	▪ State and local barriers can delay project timelines; federal permitting barriers exist for certain technologies.	▪ Some states have introduced efforts to accelerate permitting.[1] ✗ **SoP:** Not addressed.
Equipment availability	▪ Turbine shortages contribute to increased costs and slower project timelines for gas capacity. Five to seven-year lead times reported.[2]	✗ **SoP:** Not addressed.
Market design	▪ PJM's forward capacity auction intends to provide "missing money" to generators, but some developers report that current design does not provide sufficient certainty for newbuild given regulatory uncertainty and political interventions to decrease price caps.	▪ Multiple ongoing PJM reforms via CIFP[3]. ✓ **SoP:** Partial. Orders the Reliability Backstop Auction (RBA). Longer contracts provide "investability" to selected generators, but questions remain for others (new and existing assets).

Focus of this report

Other large load issues under consideration

Load forecasting	▪ Uncertainty over the large load forecast raises the risk of capacity overbuild and could artificially inflate prices.	▪ Ongoing PJM reforms via CIFP. ✓ **SoP:** Yes, urged PJM to "refine its load forecasting methodologies" to include only "real and verified demand."
Transmission	▪ New large load additions may additionally require transmission expansion. ▪ Large load co-location w/ generation may expedite interconnection of both.	▪ PJM addressing in response to FERC Dec 2025 order. ✗ **SoP:** Not addressed.
Load flexibility	▪ Load "flexibility" could reduce the need for new generating capacity.	▪ Ongoing PJM reforms via CIFP. ✗ **SoP:** Not addressed.
Large load tariffs	▪ Retail tariffs determine how costs are allocated to data centers (e.g., some states have pursued mandatory long-term commitments for new large loads).[4]	✓ **SoP:** Partial. Commits to allocating RBA costs to data centers but does not otherwise address the issue.

1) For example, Pennsylvania's 2025 Streamlining Permits for Economic Expansion and Development (SPEED) initiative. 2) Reuters, S&P, others. 3) PJM's Critical Issue Fast Path on Large Load Additions resulted in recommendations for further study on January 16th, 2026. 4) For example, AEP Ohio's data center tariff requires an 8-12 year contract term for new data center loads.
Sources: Aurora Energy Research, PJM

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

While proposed as a short-term intervention, the SoP's Reliability Backstop Auction may spur longer-term market interventions

AURORA

Spectrum of possible outcomes

Deep-dive follows

Minimal long-term impact → **Permanent reform**

Single backstop auction

Design:

- Reliability Backstop Auction occurs once.
- No intervention in current auction construct (BRA) for existing generation.
- Return to "market fundamentals" afterwards.

Possible triggers / necessary conditions:

- RBA resolves shortfall.
- Clear path to liquid market after initial auction.
- Investors signal trust in existing market design, willingness to maintain existing capacity and construct new capacity under status quo.

Greatest risks:

1. The RBA raises many complex design issues and is unlikely to fully resolve PJM's capacity shortfall.
2. The status quo market design has proven limited potential for incentivizing new generation under current market conditions.

Short-term interventions

Design:

- RBA is a clearly defined, limited-time action (e.g., 2 auctions).
- Further interventions in the BRA for existing capacity, e.g., price collar.

Possible triggers / necessary conditions:

- Clear path to resolving shortfall in near term.
- Investors signal trust in existing market design, willingness to maintain existing capacity and construct new capacity under status quo.

Greatest risks:

1. Current lack of clarity on whether / when RBA will resolve shortfall.
2. Policy intervention undermines investor confidence, potentially disincentivizing investment in both new and existing assets.

Fully bifurcated auction

Design:

- RBA serves as a framework for all "new" capacity.
- Separate auction signals and mechanisms for existing capacity, newbuild.

Possible triggers / necessary conditions:

- Persistent supply shortfall, underpinned by (perceived) inability to finance and construct generation without long-term revenue certainty.

Greatest risks:

- FERC previously ordered ISO-NE to remove multi-year price lock for new capacity due to uncompetitiveness.

3. A bifurcated auction could result in excessive newbuild in lieu of maintaining existing capacity, leading to higher costs.

The RBA as envisaged by the Statement of Principles is generally understood as a one-off auction rather than a fundamental revision to how PJM procures capacity. However, as proposed, the construct is likely to require further interventions, potentially leading to a fully bifurcated auction process.

Sources: Aurora Energy Research, PJM

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

The RBA proposal raises numerous questions which stakeholders will need to address ahead of the auction

AURORA

While the PJM Tariff contains a subsection on a Reliability Backstop Auction, the relevant provisions are broad and not tailored to the specific circumstances under which the PJM Board and consortium of state and federal officials proposed the auction. PJM stakeholders will have to determine auction eligibility, cost allocation, structure, price, and quantity.

Summary of unanswered questions for the Reliability Backstop Auction, as of February 2026

Topic	Broad question	Risks
Eligibility	▪ Which plants will be eligible to offer into the RBA?	▪ Need to incentivize new build, without encouraging premature retirements of existing generation, or dissuading / delaying projects under development already. ▪ Particular questions exist around capacity already in the interconnection queue, capacity cleared for the 2027/28 delivery year but not yet fully constructed, and existing capacity at risk of retirement.
Cost allocation	▪ Which large load customers will pay the RBA costs? ▪ How will load-serving entities / states avoid spillover?	▪ Full bilateral construct is being considered, but out-of-market mechanisms may not prevent impacts from other new costs (e.g., congestion or transmission upgrades.) ▪ If insufficient large load participates in the RBA (voluntarily or otherwise), PJM may be unable to procure sufficient capacity without subjecting ratepayers to RBA costs.
Structure	▪ How will PJM determine the auction structure and price? ▪ How will the auction interact with the BRA and the PJM energy market?	▪ If the price terms offered through the RBA are more appealing than the standard capacity auction, new resources may be reluctant to come online outside of the RBA construct. Ultimately, this could necessitate multiple rounds of backstop auctions, or another construct to replace the standard capacity auction.
Quantity	▪ How much capacity will be procured?	▪ Limited amount of capacity outside of the existing interconnection queue which could come online by 2030; resources procured in the RBA may not resolve short-term reliability problems. ▪ By 2035, the projected capacity shortfall is substantial; any effort to procure enough capacity to resolve long-term capacity issues could permanently undermine market signals.

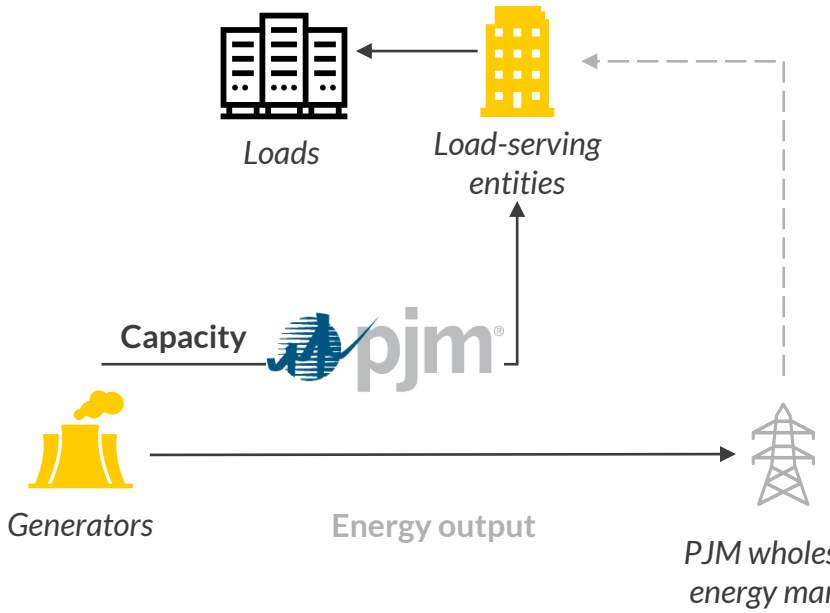
Sources: Aurora Energy Research, PJM

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

The RBA would in effect create long-term contracts between generators and large loads, with PJM and LSEs mediating; no precedent exists in PJM

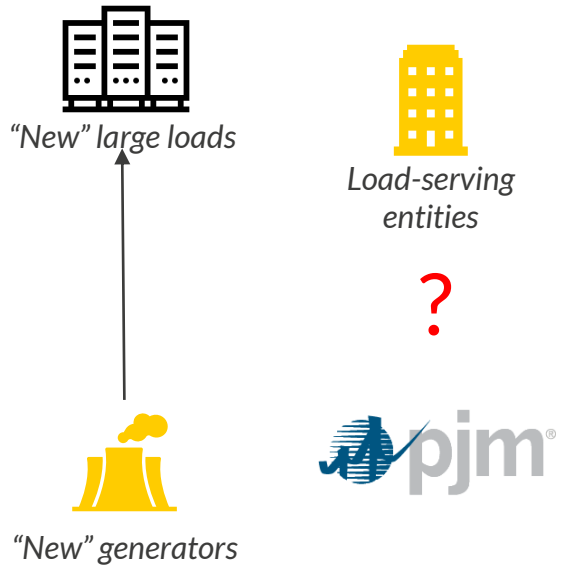
AURORA

Standard PJM market design



- Under the standard PJM capacity market design, generators sell their capacity value into a PJM-administered auction, and the costs are allocated to load-serving entities.
- Meanwhile, the generators sell their energy output into the PJM wholesale energy market.
- PJM administers all markets required to match supply with demand.

Proposed Reliability Backstop Auction design[1]



- At its February 6 workshop, PJM staff indicated a preference for the RBA to comprise bilateral contracts between new generators and new large loads.
- This structure raises numerous regulatory and practical questions, including PJM's involvement in the bilateral RBA contracts.
- PJM will be left to determine how capacity and generation will be accounted for in PJM's ongoing operations and reliability planning; unintended consequences could include e.g., disincentivizing demand-side reductions if many units are self-scheduled.

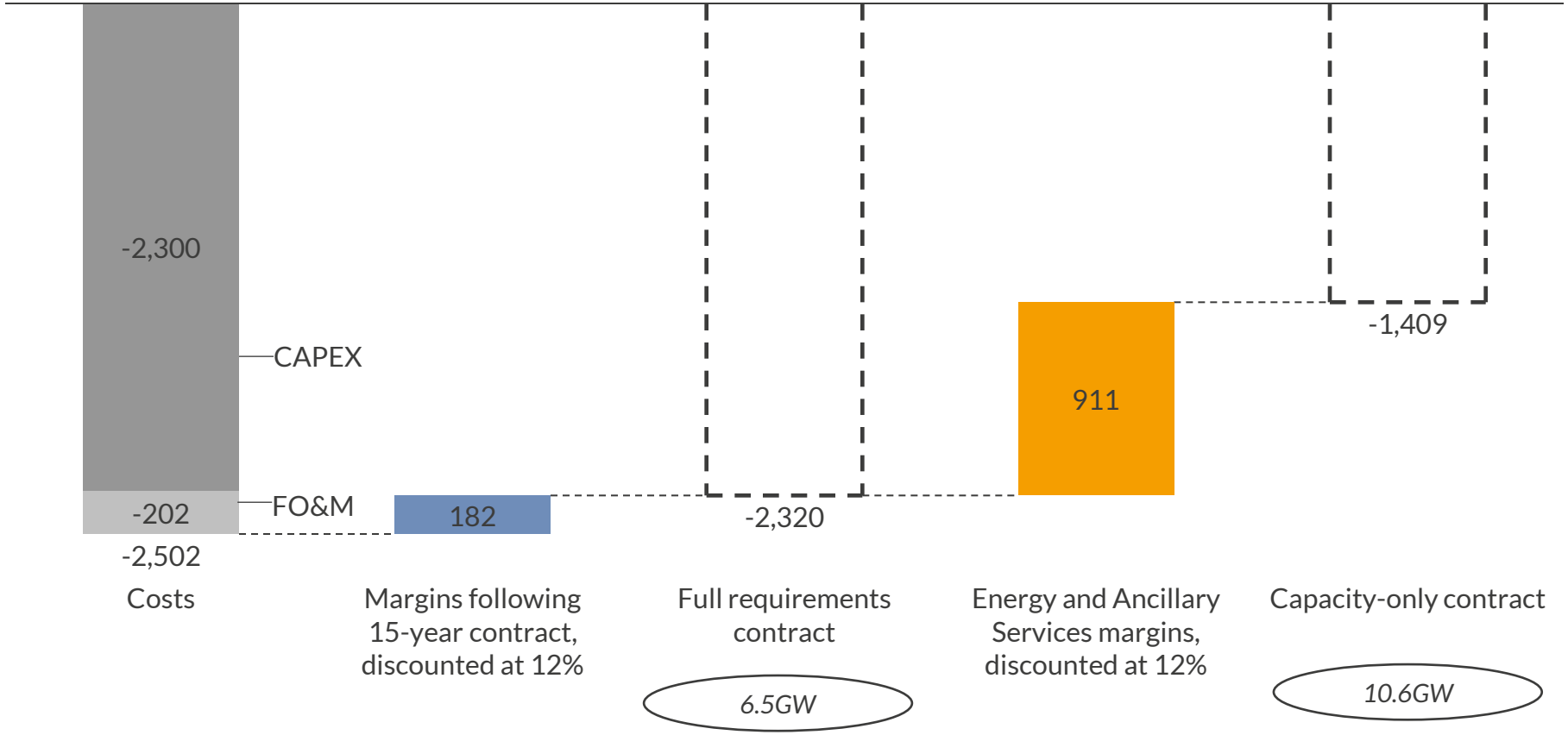
1) Design of the Reliability Backstop Auction is in progress; ultimate design may differ.

Sources: Aurora Energy Research, PJM, DOE

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

With a budget of $15 billion, the RBA may only cover the costs of ~6 to 10GW new capacity

Illustrative present value analysis for a combined cycle Reliability Backstop offer, 2030 entry year in AEP (Ohio)[1]
$/kW (real 2024)



$15 billion was referenced in the DOE press release concerning the RBA; actual budget could differ. Auction structure is illustrative, as PJM has not determined whether to use a full requirements, capacity-only, or some other contract type.

1) Analysis assumptions: CAPEX of $2,300/kW for illustrative purposes; energy, AS, and capacity prices based on Aurora's January 2026 Power and Renewables Market Forecast Central case; discount rate of 12% for merchant revenues; 25-year asset economic lifetime, 15-year "Reliability Backstop Auction" contract.

Sources: Aurora Energy Research, DOE

AURORA

- A "full toll" model for baseload generation has been uncommon to date but has been discussed for the RBA.
- Assuming $2,500/kW in gross costs, a new asset would require ~$2,300/kW in present value terms, net of **energy and capacity margins post-contract**. Actual costs may differ but reflect current benchmarks.
  - With a $15bn budget (in present value terms), the RBA would procure ~6.5GW (5.5GW UCAP) of these assets.
- However, if the RBA procured only the capacity value of the asset (i.e., the traditional BRA model), the project would earn revenues in the PJM wholesale energy and AS (E&AS) markets; the present value of **E&AS margins would total** approximately $1,000/kW.
  - Under this framework, a $15bn budget would procure **10.6GW.**

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

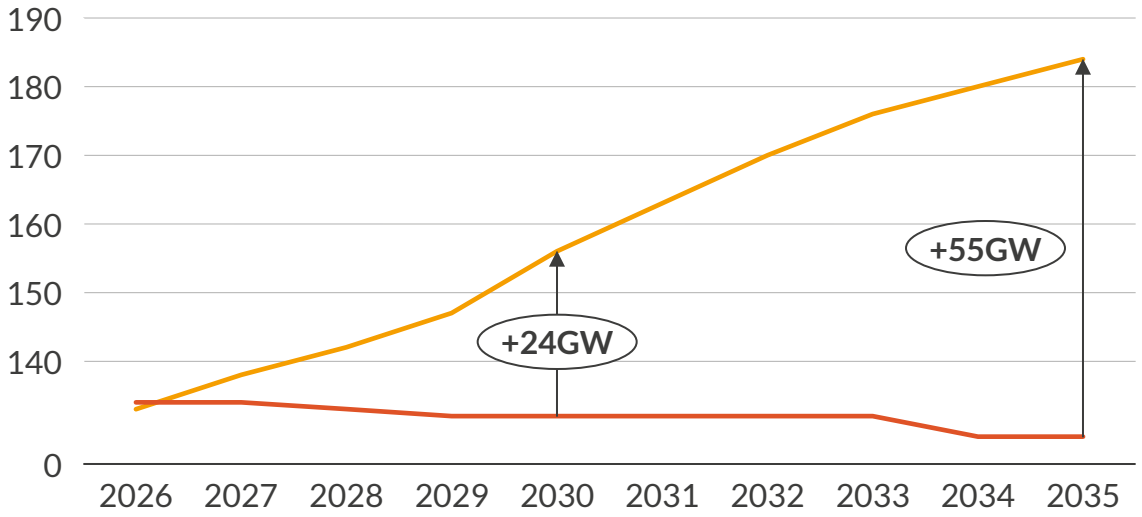
PJM's load forecast implies the need for 24GW of "new" capacity by 2030, which would be difficult to fully procure via the RBA

AURORA

PJM could need up to 24 GW of new entry by 2030, and 55GW by 2035.

PJM projected Reliability Requirement and existing supply

GW UCAP



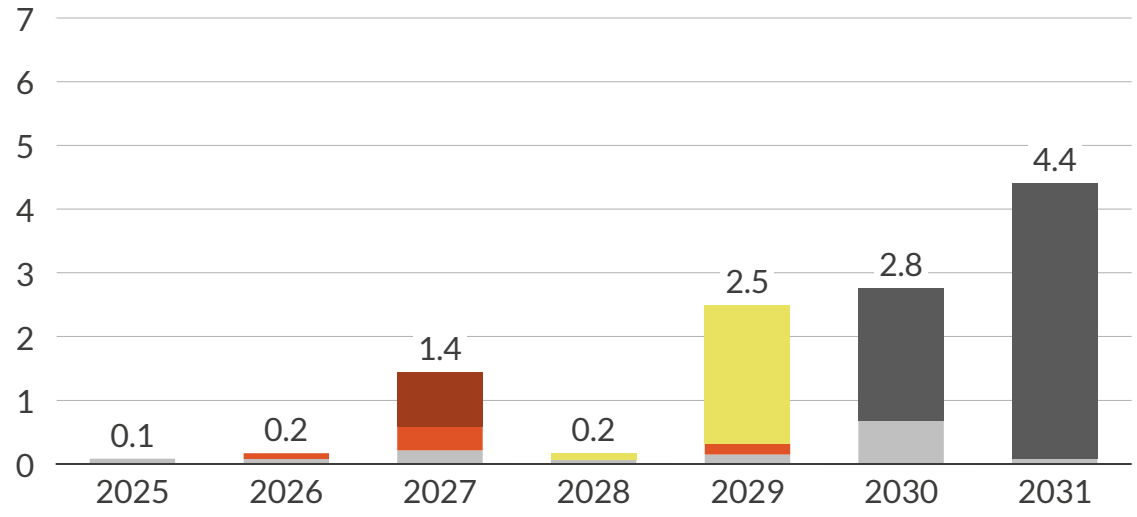
- The Reliability Requirement (RR) for 2035, calculated based on PJM's 2026 load forecast and a 92.6% Forecast Pool Requirement (FPR), is ~184GW.
- By 2030, 24GW of shortfall is possible. By 2035, if supply remains at 2027 levels with no additional capacity added and planned retirements occurring, a 55GW UCAP gap between supply and the reliability requirement emerges.
- As previously demonstrated, the RBA could procure 6-10GW UCAP, leaving a further 14GW+ of requirements.

PJM Estimated Rel. Req. — PJM Estimated Supply [1]

Muted uptake on the 2025 RRI initiative shows that – RBA budget aside – the auction alone will struggle to close the gap.

Capacity additions selected through Reliability Resource Initiative (RRI)

GW, nameplate



- PJM's 2025 RRI program was designed to fast-track "shovel-ready" projects with high ELCCs to begin to address the shortfall. However, only ~4GW UCAP with CODs before 2029 were selected. Also, 2.5GW UCAP of RRI capacity has already withdrawn, presumably due to high costs or construction challenges.
- As RRI selections were released in May 2025, it is unlikely that the RBA could procure materially more "new" capacity with a September 2026 auction date.

Natural gas uprate — Newbuild Nuclear — Newbuild Natural gas
Nuclear uprate — Newbuild Battery storage

1) Estimated supply is 27/28 Committed Capacity, less that of announced retirements.

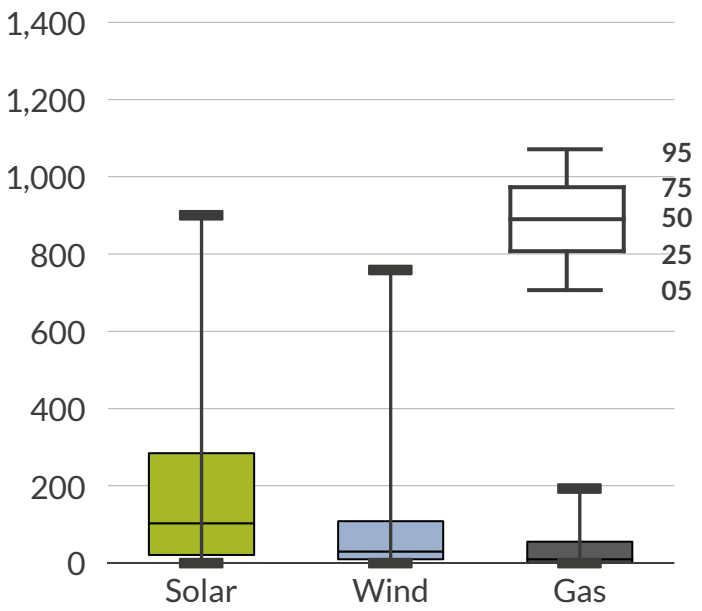
Sources: Aurora Energy Research, PJM

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

Detail | Rising interconnection costs present additional barriers, and are likely contributing to withdrawn projects including from fast-tracked RRI projects

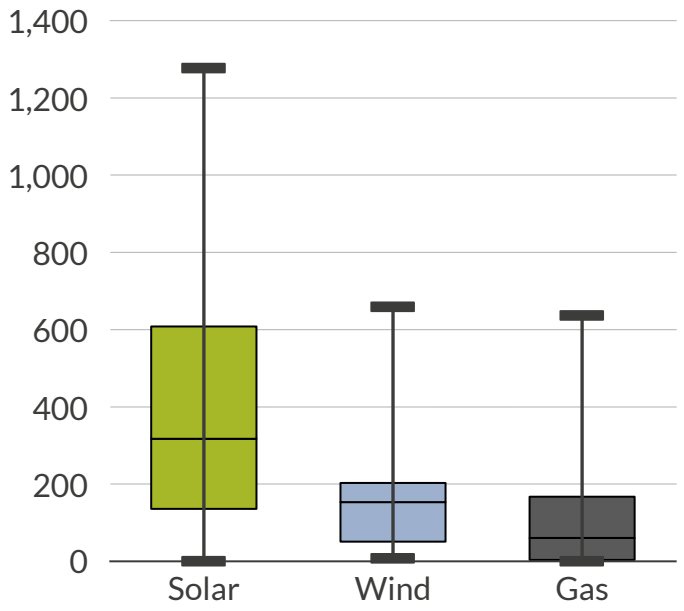
AURORA

Historical interconnection cost distribution[1]
$/kW, real 2024



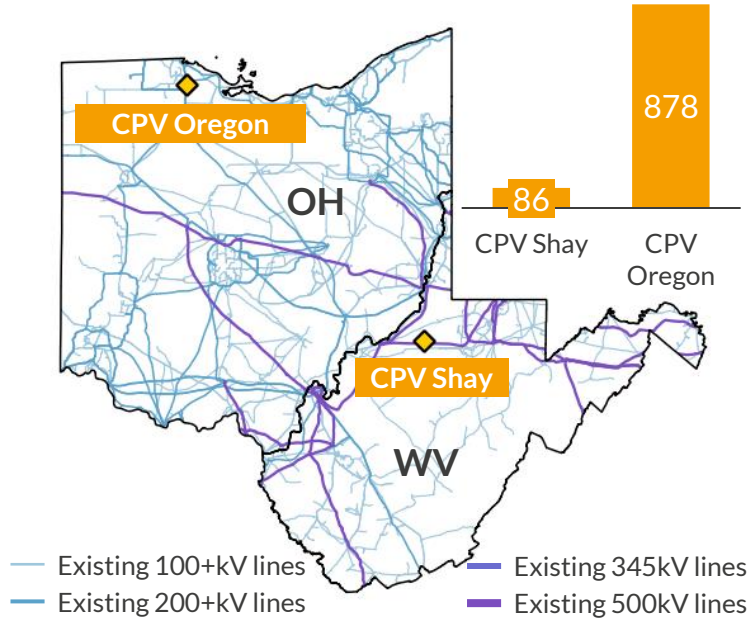
- The variability in required interconnection costs for renewables exceeds that of thermal assets. For instance, the difference between the 5th and 95th percentile for solar is nearly $900/kW, compared to under $200/kW for natural gas plants.

Transition Cycle 2 interconnection cost distribution[2]
$/kW, real 2024



- The median interconnection costs for solar and wind plants currently in TC2 have been ~$320/kW and ~$160/kW respectively, representing a 4x increase for solar and a 7x increase for wind.
- Likewise, interconnection costs for new natural gas plants have increased six-fold, highlighting the extra expenses in addition to the rising capital expenditure for combined cycle plants.

Interconnection costs for selected CC projects[3]
$/kW, real 2024



- Some projects fast-tracked via PJM's RRI received high interconnection cost estimates; for example, CPV Oregon withdrew from the queue after receiving a $878/kW estimate.
- Interconnection costs are highly variable and can be difficult to predict ex ante. Another CPV project received an estimate of just $86/kW.

Wind Solar Natural Gas

1) Based on all interconnection studies in PJM through 2022, including those associated with projects that subsequently withdrew. 2) Estimated interconnection costs based on Transition Cycle 2 – Phase 1 results. 3) CPV Shay is a proposed CC plant with a nameplate capacity of 2100MW; CPV Oregon is a proposed CC plant with a nameplate capacity of 1475MW that has since withdrawn its interconnection queue request.

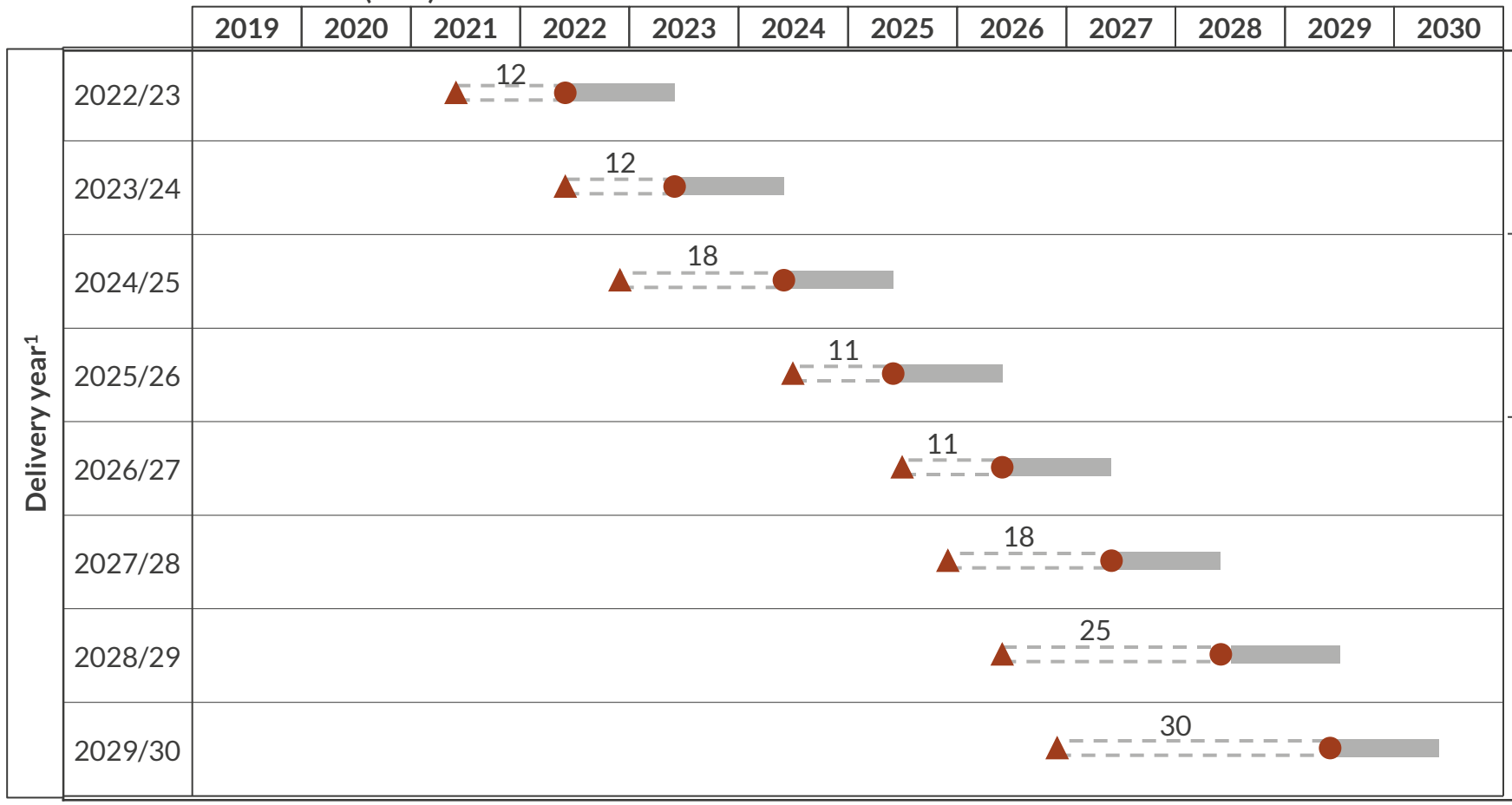
Sources: Aurora Energy Research, PJM, Lawrence Berkeley National Lab

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

The PJM Base Residual Auction has seen years of reform efforts and auction delays; the Reliability Backstop Auction creates additional uncertainty

AURORA

PJM's Base Residual Auction (BRA) schedule



Related reform efforts

The 2022/23 BRA was delayed due to several FERC rulings and related stakeholder management and proposals by PJM, primarily related to PJM's Minimum Offer Price Rule.

PJM's Critical Issue Fast Path in 2023, which among other things introduced a marginal ELCC accreditation approach, resulted in a delay of the 2025/26 BRA.

The spike in capacity prices in the 2025/26 BRA catalyzed several rapid reform efforts ahead of the 2026/27 BRA, including the "Price Collar," which lowered the market price cap.

While the 2028/29 BRA has not been subject to further delays, numerous reform efforts are in progress, including the Reliability Backstop Auction and the PJM Board's directive to conduct a "holistic review of investment incentives in PJM's markets."

▲ Base Residual Auction (BRA) ● Start of delivery year[1] ⬚ Months between BRA and delivery year ▬ Delivery year

Typically, the BRA occurs 36 months before the delivery year. However, reforms have caused delays since 2020. The impacts of the RBA, along with the potential for future significant reforms, increases the regulatory risk premium for investors aiming to bring online new capacity through the "standard" capacity auction.

1) Delivery years run from June 1 through May 31.

Sources: Aurora Energy Research, PJM

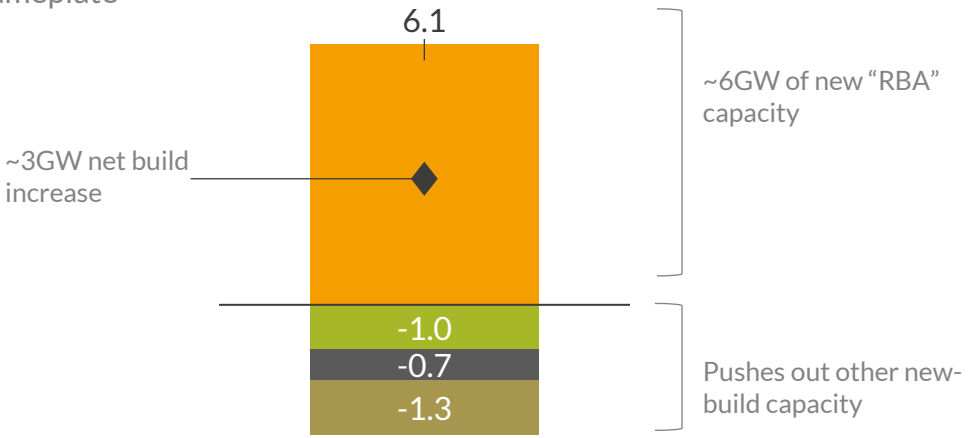
Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

The RBA could lower "standard" capacity prices, but regulatory risk and lower prices makes other assets less willing to build

By displacing assets that would have been delivered via the standard capacity auction, the RBA leads to only 3GW net new capacity.

Capacity delta to no-RBA case, 2035

GW, nameplate



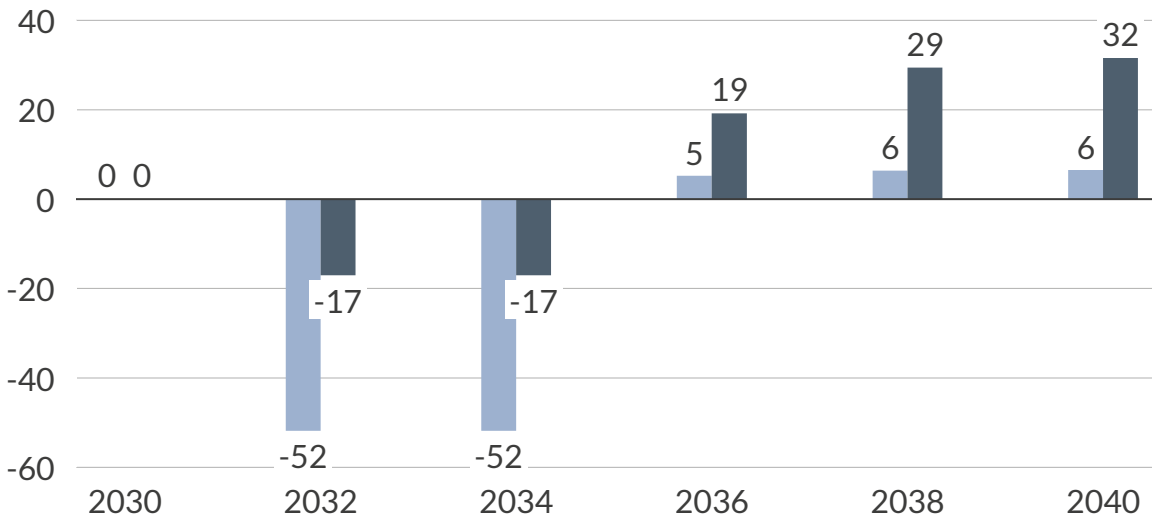
- We model an RBA scenario, assuming the auction procures ~6GW of newbuild combined cycle capacity, coming online between 2032 and 2034. We model this new capacity participating in the "standard" capacity auction as price takers. As a result, RBA capacity reduces other newbuild by 3GW.
- However, we assume that the RBA, among other interventions, increases regulatory risk. We model this new base case via an Uncertainty Risk Scenario, which increases WACC[2] by 2p.p. for other newbuild capacity.

Solar Gas CC Gas CT RBA capacity

Investment risk for other newbuild offsets some of the price reduction that the RBA achieves.

Capacity price delta to no-RBA case[1]

$/MW-day (real 2024)



- The RBA scenario sees lower capacity prices than a pre-RBA base case in the mid-2030s, as less incremental build is needed. This is the effect of the "displaced capacity" described and could limit newbuild outside of the RBA.
- The Uncertainty Risk Scenario represents a more accurate base case and demonstrates that the increases risk for non-RBA assets offsets the price suppression associated with the RBA, eventually leading to higher capacity prices by the end of the 2030s.

RBA scenario Uncertainty Risk Scenario

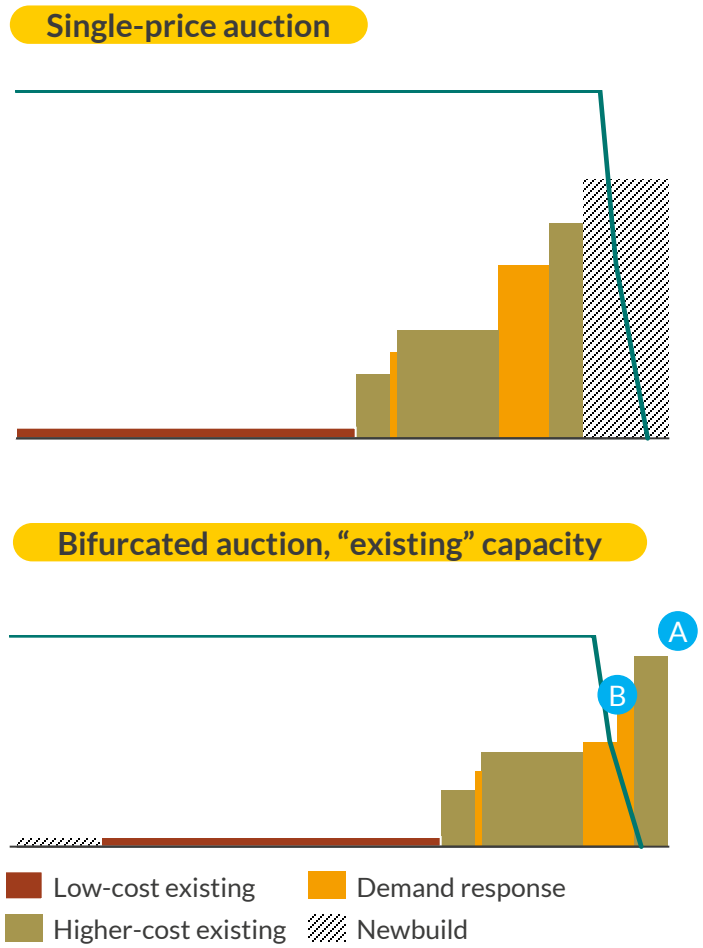
1) Clearing price for the PJM RTO region in the BRA. 2) Weighted average cost of capital, which determines the discount rate for economic decisions in the modeling.

Sources: Aurora Energy Research

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

A bifurcated auction could lower payments to existing assets, but this structure risks increasing total costs via excessive newbuild

Illustrative capacity supply and demand curves
$/MW-day; GW UCAP



A more persistent shortfall may cause the RBA to be extended to future years. A bifurcated auction risks creating a "buy now, pay more later" dynamic that could increase consumer bills and undermine system reliability in the medium term.

- In a **single-price auction**, a single demand curve based on expected load clears the cheapest mix of "existing" and "new generation" needed to ensure system reliability.
- In a **bifurcated auction**, the system operator must determine separate procurement targets and price caps for "new" and "existing" capacity. In theory, perfect prediction would result in roughly equal outcomes to a single-price auction. In practice:
  - A If the procurement target for new capacity is set too high and/or the price cap for existing capacity set too low, some existing generators are forced to retire in favor of new capacity.
  - B A lower clearing price can dissuade Demand response, minimizing a signal that would lower the overall capacity procurement need. Demand response in the 2027/2028 auction was ~100MW lower than in the previous auction.
    - Resources with the capability to export to other regions may choose this route; for instance, the Cordova Energy plant in Illinois signed a contract to provide capacity to MidAmerican Energy in MISO for the 27/28 delivery year after a price collar was announced.
- In the example here, these risk factors of a bifurcated market lead to more newbuild than strictly required and raise the overall cost of the auction. This increases total system costs and to the extent new capacity cannot be quickly built, jeopardizes reliability.
- Other regions with capacity markets have decided against bifurcation, for similar reasons. NYISO elected not to move forward with bifurcation following a review in 2025, citing "reliability risks that would require out of market action." In 2020, FERC ordered ISO-NE to remove a seven-year price guarantee for new capacity, citing "price suppressive effects."

Source: Aurora Energy Research, NYISO, FERC

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

Conclusions

AURORA

1. **The dual capacity and affordability challenge.** PJM is struggling to bring online the new generation fast enough to meet growing electricity demand from data centers, resulting in higher costs for consumers and well-founded concerns about affordability.
2. **The "first mover" responsibility**. PJM is likely to be a template for other regions that will soon face similar reliability and affordability challenges; therefore, short- and long-term market interventions should be carefully designed to avoid unintended cost increases.
3. **A stopgap measure.** The proposed Reliability Backstop Auction (RBA) attempts to address PJM's challenges by i) providing a long-term price signal for new generation and ii) assigning the cost of procuring new generation specifically to hyperscalers.
4. **Partial effectiveness.** Our analysis suggests the proposal is unlikely to resolve the structural challenges in PJM.
   - **Physical bottlenecks**. The non-financial barriers primarily responsible for the current capacity shortfall – protracted interconnection queues, permitting delays, and extended equipment lead times – will hamper the ability to build new capacity quickly. Some previously fast-tracked dispatchable capacity in PJM has already withdrawn its interconnection request.
   - **Capacity shortfall**. A one-time procurement is unlikely to resolve the ~24 GW shortfall projected by 2030, suggesting the RBA or other out-of-market interventions will need to scale up, not phase out.
5. **Unintended consequences.** A more permanently bifurcated capacity auction creates several risks for PJM:
   - **The "intervention treadmill".** Out-of-market interventions are likely to erode investor confidence in building new capacity outside of the RBA construct. This can increase prices in the long term and exacerbate the reliability challenge.
   - **Higher costs for consumers**. A bifurcated capacity market undermines efficiency, raising the risk of further increasing costs. Some existing capacity is likely to retire or export to other markets if prices are kept low, leading to unnecessary and costly additional procurements.
6. **It is possible to address affordability without distorting price signals.** Economic efficiency is best served by letting prices reflect the true marginal cost of reliability to avoid the risk inherent in designing multiple auctions. Additional options for addressing affordability include targeted cost allocation (e.g., via large load tariffs) or alternative credit mechanisms.

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

Agenda

AURORA

I. Appendix: About Aurora Energy Research

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

Our Global Presence

Aurora Energy Research is a leading global provider of power market analytics. Founded by university professors, we've grown into a team of over 1,000 professionals worldwide, helping major energy market participants navigate their most complex, long-term decisions.

- Power markets
- Grid & Congestion
- Renewables & PPAs
- Natural Gas
- Storage
- Carbon (CO_2)
- Electric Vehicles
- Hydrogen (H_2)

17 Offices

950+ Subscribing companies

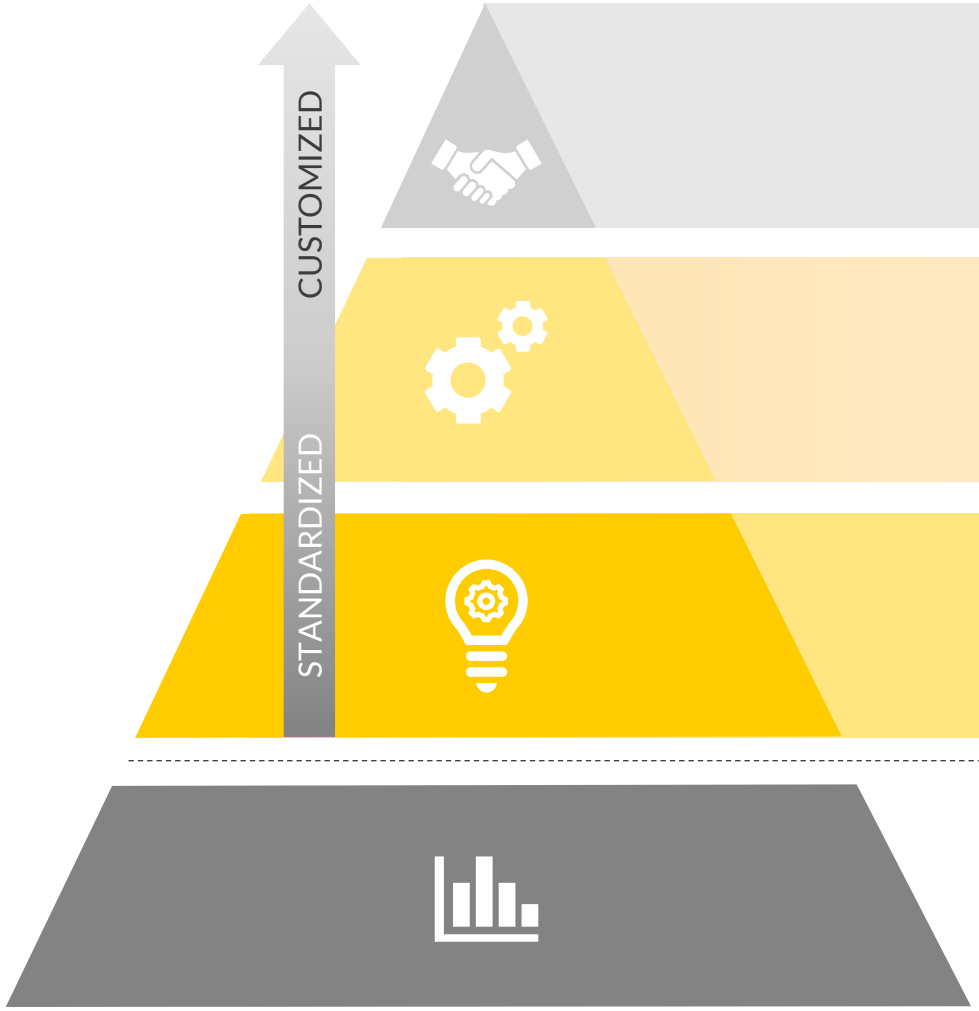
1000+ Market experts

250+ Transactions supported in 2024

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

Our market leading models and bankable forecasts underpin a comprehensive range of seamlessly integrated services to best suit your needs

AURORA



Advisory

Dedicated support for strategy, investments, transactions, and policy engagement

Navigate complex markets, optimize investments, and drive smarter decisions

1,400+ projects globally

Software Solutions

Make standard analysis bespoke through direct access to our models

Unique SaaS subscriptions to create your own scenarios and asset-specific investment cases

300+ company licenses

Subscription Analytics

Regularly updated forecasts, sample investment cases and timely deep-dives

Industry-standard outlook reports, bankable price forecasts and strategic insights

950+ subscribing companies

Models & Data

Market-leading models for power, gas, hydrogen, carbon, oil & coal markets

Proprietary and continuously updated cutting-edge models populated with highest quality curated datasets

Developed over 12 years, 100+ dedicated modellers

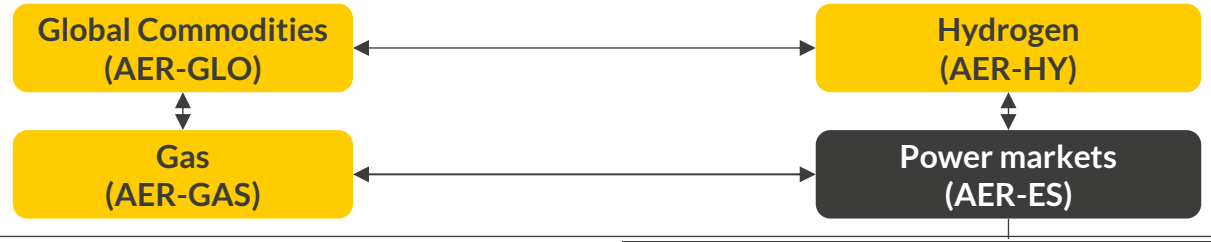
© Aurora Energy Research, LLC.

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

Aurora's analysis is based on proprietary, in-house modelling with integrated energy, ancillary, and capacity expansion modelling

AURORA

4+ Integrated Models



INPUTS

- Technology
- Policy
- Demand
- Commodity prices[1]
- Weather patterns

Dispatch model

- Hourly or sub-hourly
- Iterative modelling
- Dynamic dispatch of plant
- Ancillary services modelled endogenously

Continuous iteration until an equilibrium is reached

Investment decisions module

- Capacity market modelling (where applicable)
- Capacity build / exit / mothballing
- IRR / NPV driven
- Detailed technology assessments

OUTPUTS

- Capacity mix
- Generation mix
- Wholesale & imbalance prices
- Capacity market prices
- Profit / Loss and NPV
- Electric vehicle charging

Up to 70 specifications modelled for each plant

c. 85k investment hours on modelling capabilities

~15k model runs per week

100+ strength of modelling team globally

Quarterly updates through subscription research

1) Gas, coal, oil and carbon prices fundamentally modelled in-house with fully integrated commodities and gas market model.

Source: Aurora Energy Research

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

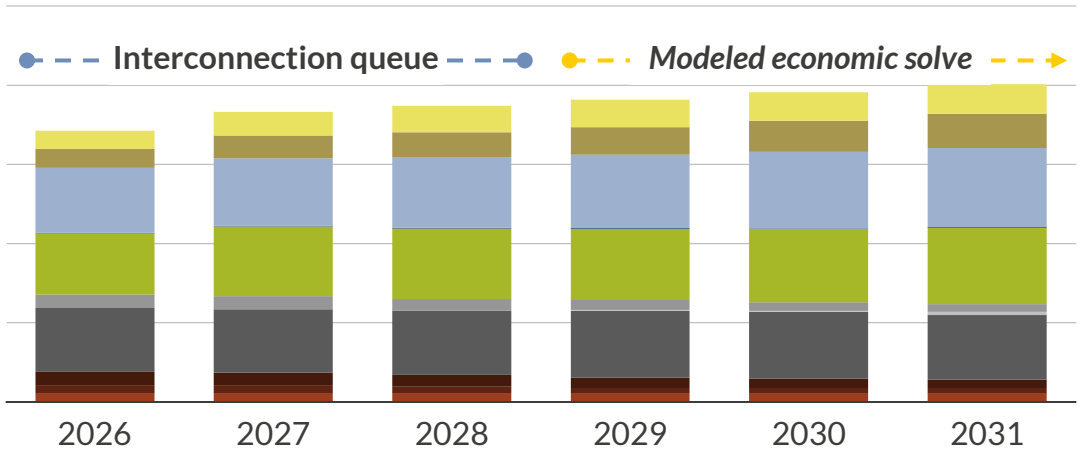
Aurora utilizes both the interconnection queue and an economics-based model solve to forecast future capacity

AURORA

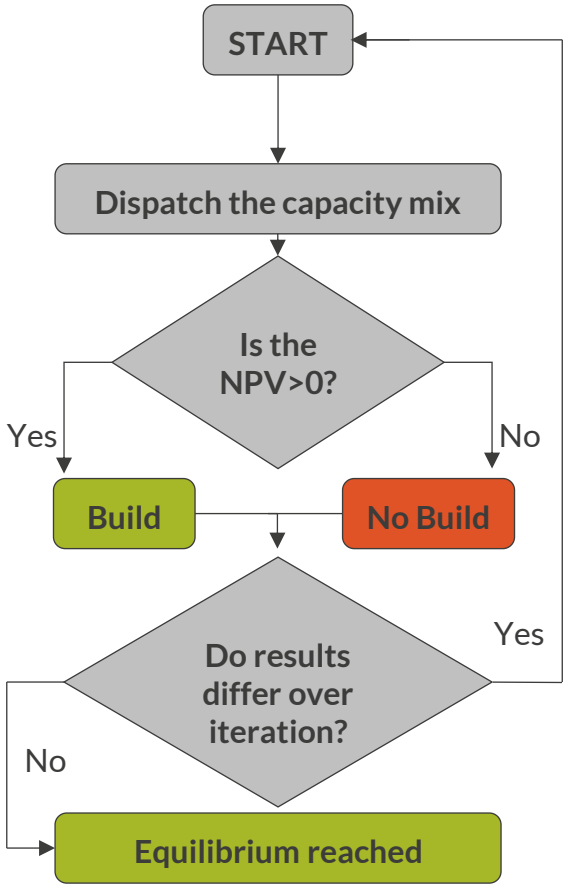
Inclusion of capacity from the PJM Interconnection Queue

- Aurora's near-term capacity additions are based off the PJM interconnection queue.
- Aurora evaluates completion rates of projects in the existing interconnection queue with historical success rates in determining the timeline of their market entry.
- Plants included in the forecast must have already signed an interconnection agreement.
- **Capacity additions are updated by Aurora on a quarterly basis.**

Forecasted capacity stack



Aurora Origin Model Internal Capacity Expansion



- In the mid to long-term, Aurora forecasts capacity additions based on an economic model solve.
- Plants in Aurora's model choose to either build or retire based off a NPV calculation.
- Existing plants have the ability to close or continue operating based on unit economics for the plant.
- The Aurora methodology **minimizes total system cost over the model lifetime** through a process of algorithmic iteration until lowest system cost is achieved.

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

Details and disclaimer

Publication: PJM's Reliability Backstop Auction: considerations and risks

Date: February 2026

Copyright and Confidentiality

- This document ("Report") and its content (including, but not limited to, the text, images, graphics and illustrations) is the copyrighted material of Aurora Energy Research Limited and/or one or more of its affiliates (currently Aurora Energy Research GmbH, Aurora Energy Research Pty Ltd, Aurora Energy Research LLC, Aurora Energy Research Investigacion y Análisis S.L.U., Aurora Energy Research SAS, Aurora Energy Research AB, Aurora Energy Research S.R.L, Aurora Energy Research Single Member Private Company, Aurora Energy Research K.K., Aurora Energy Research PTE. Ltd., Aurora Energy Research Brasil Limitada, Aurora Energy Research India Private Limited and such other subsidiary or affiliate of Aurora Energy Research Limited as may be incorporated from time to time) (together "Aurora"), unless otherwise stated.
- This Report is the confidential information of Aurora and may not (in whole or in part) be copied, reproduced, distributed or in any way used for commercial purposes without the prior written consent of Aurora.

General Disclaimer

- This Report is provided "as is" for your information only and no representation or warranty, express or implied, is given by Aurora or any of their directors, employees agents or affiliates as to its accuracy, reliability, completeness or suitability for any purpose.
- Aurora accepts no responsibility and shall have no liability in contract, tort or otherwise to you or any other third party in relation to the contents of the Report or any other information, documents or explanations we may choose to provide in connection with the Report.
- Any use you make of the Report is entirely at your own risk. The Report is not to be relied upon for any purpose or used in substitution for your own independent investigations and sound judgment.
- You hereby waive and release any and all rights, claims and causes of action you may have at any time against Aurora based on the Report or arising out of your access to the Report.
- The information contained in this Report may reflect assumptions, intentions and expectations as of the date of the Report. Aurora assumes no obligation, and does not intend, to update this information.
- If you are a client of Aurora and have an agreed service contract with Aurora ("Service Contract"), or have received the Report subject to a release, reliance or other agreement with Aurora ("Alternative Agreement"), your access to the Report is also subject to the terms, exclusions and limitations in the applicable Service Contract or Alternative Agreement between you and Aurora.
- This Notice and Disclaimer must not be removed from this Data Book and must appear on all authorized copied, reproduced or distributed versions.
- If there is an inconsistency or conflict between this Notice and Disclaimer and your Service Contract or Alternative Agreement, your Service Contract or Alternative Agreement shall prevail.

Downloaded by Chiara Boye [Chiara.Boye@auroraer.com] for Aurora Energy Reasearch at 19/02/2026, 19:06:30 (UTC)

AURORA

ENERGY RESEARCH