2027/2028 Base Residual Auction Reserve Target Shortfall Report

February 9, 2026

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Executive Summary

PJM Interconnection cleared the 2027/2028 Base Residual Auction with a reserve margin that is more than one percentage point below the Installed Reserve Margin target, and with total Unforced Capacity of all Base Load Generation Resources less than the forecasted minimum hourly load. This confirmed shortfall constitutes a triggering event as defined in the PJM Tariff, mandating an investigation to determine the root causes of the region's failure to secure sufficient resource adequacy.[1]

This shortfall is due to a confluence between an unprecedented surge in data center load and the realities of global supply chain friction.

The auction results reveal that PJM has entered a critical period, or "transition gap," where demand growth has temporarily outpaced infrastructure development. This shortfall is due to a confluence between an unprecedented surge in data center load, the realities of global supply chain friction [as detailed in PJM's recent Periodic Review Filing (PDF)], the inability for developers to timely respond to pricing signals due, and the queue transition. This "transition gap" is further exacerbated by the deactivation of legacy thermal assets, which depleted the region's historical capacity surplus precisely before the onset of the current demand growth. Given the demand forecasts, a reliability deficit was practically unavoidable, as the required volume of new generation could not be built fast enough to match the surge in consumption. These findings were consistent with stakeholder feedback to the 2027/2028 BRA shortfall survey.[2] While regulatory reforms such as an overhauled generation interconnection process and the Reliability Resource Initiative (RRI) are actively clearing administrative bottlenecks, they cannot overcome the immediate permitting and construction period required to bring new generation resources online, especially given the pace of large load additions that PJM has experienced and is expected to experience in the near future. Furthermore, this paper identifies issues surrounding continuation of the administrative "price collar."

This paper investigates the causes of shortfall, reviews key metrics from the 2027/2028 Base Residual Auction (BRA) and recommends potential corrective actions.

2027/2028 Base Residual Auction Results

The 2027/2028 Reliability Pricing Model (RPM) BRA cleared 134,478.1 MW of Unforced Capacity (UCAP) in the RTO from annual summer-period and winter-period matched resources. 809.6 MW of UCAP did not clear because the offer prices were above the temporary price cap of $333.44 $/MW-day UCAP. Fixed Resource Requirement (FRR) resources committed 11,299 MW UCAP. In total, 145,777.1 MW UCAP was procured in PJM for the 2027/2028 Delivery Year, which was 6,517 MW UCAP below the RTO reliability requirement.[3]

The RPM cleared a 14.4% Installed Reserve Margin (IRM) for the 2027/2028 Delivery Year, which was 5.6 percentage points below PJM's target 20% IRM. The IRM is the reserve margin determined to be necessary to maintain a 1-in-10 Loss of Load Expectation (LOLE).

[1] PJM OATT, Attachment DD § 16.2 and 16.3(a)(ii)

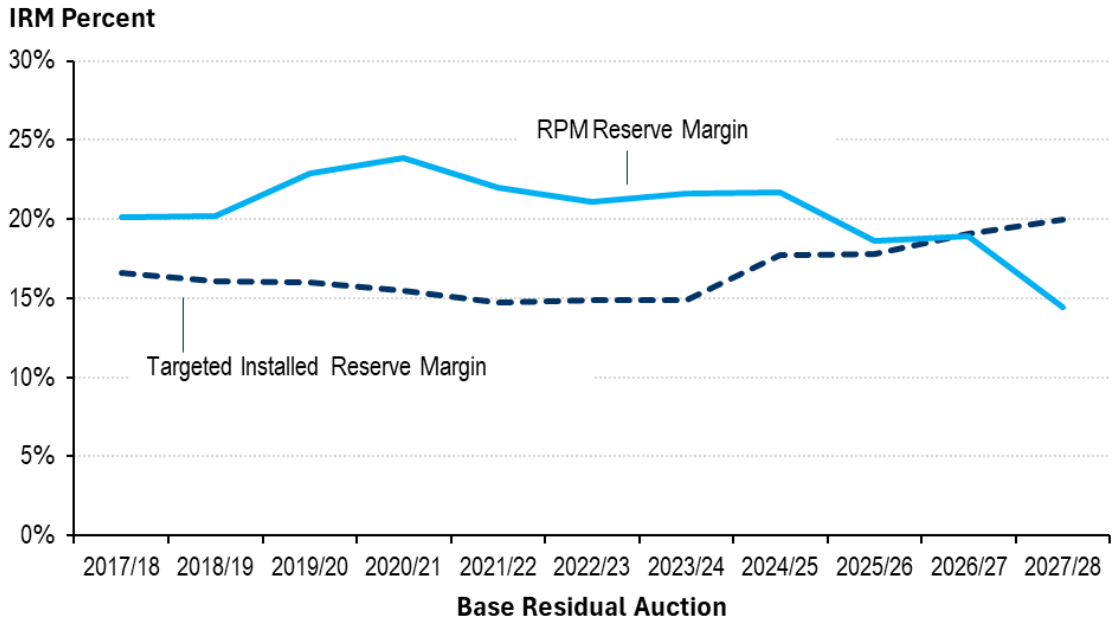
[2] 2027/2028 Base Residual Auction PJM Stakeholder Feedback Survey Responses (PDF)

[3] 106.5 MW Price Responsive Demand (PRD) is included in the IRM calculation by subtracting the amount of PRD from the reliability requirement.

Per the PJM Open Access Transmission Tarriff, Attachment DD, section 16, a shortfall of greater than one percentage point triggers an investigation into the cause of the shortage. Further, if a shortfall of greater than one percentage point continues for two additional BRAs, this will trigger a Reliability Backstop Auction. If a Reliability Backstop Auction is warranted, the Tariff requires that PJM make a filing with FERC prior to its execution.

Figure 1 shows the target Installed Reserve Margin and RPM-cleared reserve margin for the 2017/2018 through 2027/2028 auctions. The reduction in the cleared reserve margin is due to a combination of demand changes, supply changes and regulatory decisions discussed in the remainder of this paper.

Figure 1. Target Installed Reserve Margin and RPM Reserve Margin: 2017/2018 Through 2027/2028 BRA



The results of the 2027/2028 BRA provide empirical evidence of a "transition gap" between demand growth and infrastructure development.

The data reveals that resource adequacy in the PJM service area is under significant stress, characterized by tightening reserve margins and scarcity. The failure to clear to the target IRM despite high clearing prices indicates that there was simply no additional accredited capacity available to clear below the price cap applicable to this auction.

Causes of Shortfall

Surging Demand: A National Phenomenon

The primary driver of the capacity shortage is a fundamental, unprecedented shift in the market's denominator: the load forecast. While the 2024 PJM Load Forecast Report (PDF) in January 2024 delivered an initial "shock" of tripling historical growth rates, the trajectory has proven resilient. The release of the 2026 PJM Long-Term Load Forecast Report (PDF) in January 2026 adjusted the peak forecast slightly downward relative to the 2025 PJM Long-Term

Load Forecast Report (PDF) figures, yet it continued the overall trend of sustained, structural load growth that existing and planned generation are struggling to match. This slight calibration does not negate the massive cumulative increase in demand obligations. The market is no longer solving for a static target but instead is chasing a demand curve that remains consistently elevated.

Industry analyses indicate that data centers are on track to consume between 6.7%–12% of total U.S. electricity generation by 2028.

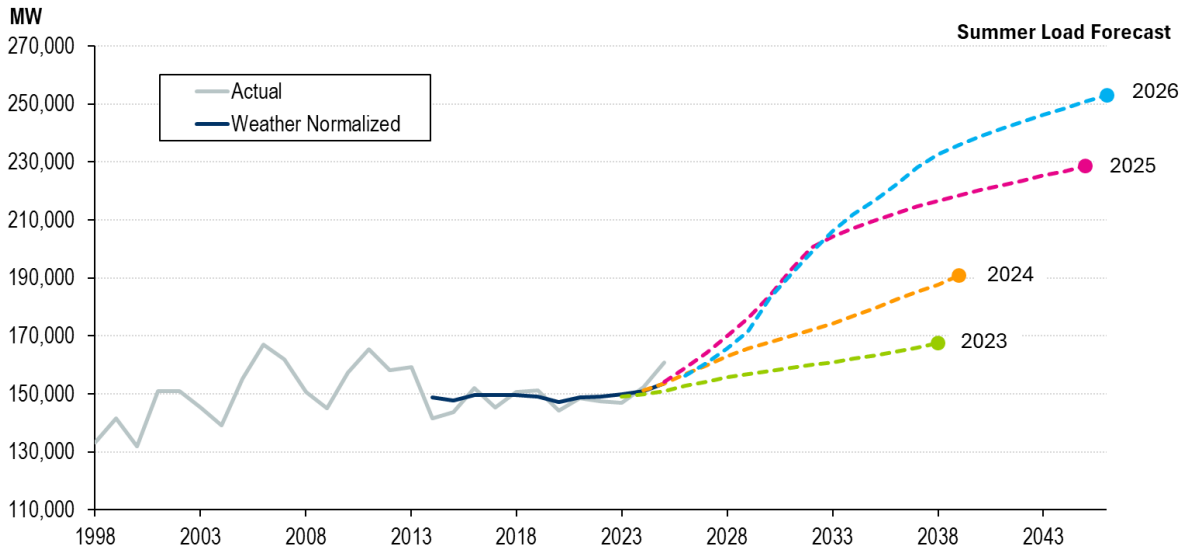
PJM is on the leading edge of a national trajectory. The explosive demand growth in the Dominion Transmission Zone and extending to the rest of the PJM footprint is mirroring a nationwide structural shift where data center power consumption is projected to double by the end of the decade. Industry analyses indicate that data centers, driven by the computationally intensive demands of generative AI, are on track to consume between 6.7% and 12% of total U.S. electricity generation by 2028.[4] Data centers currently represent more than 7% of energy use in the region PJM serves. This is not merely a regional zoning issue but rather a national race for power. The computational intensity of AI workloads, which require significantly higher power densities per rack than traditional cloud storage, has fundamentally altered the energy usage of the digital economy. PJM's forecasted minimum hourly load forecasts now reflect the steady, 24/7 nature of data center demand, where over 90 percent of their load is continuous. This shift in the load profile has a corresponding effect on the base load resources needed to meet the tariff defined reliability check. While emerging evidence indicates that AI-driven workloads possess significantly greater operational flexibility than traditional data center load models, the details of the degree of this flexibility require further substantiation and transparency from the data center community. PJM, hosting the world's largest concentration of this infrastructure, is simply the first RTO to hit the physical realities of this national trend.

In its 2026 Long-Term Load Forecast, PJM revised its annualized summer peak load growth rate upward again, from 2% over the next 20 years (2025 forecast) to 2.4% over the next 20 years (2026 forecast) over the planning horizon. In absolute terms, PJM now projects summer peak demand to climb by approximately 82 GW to reach 239 GW over the next 15 years. This revision effectively adds a new load obligation roughly the size of the entire ERCOT grid to the PJM footprint but compresses the timeline for serving it.

Figure 2 shows the PJM RTO Summer Peak Load Forecast for years 1998 through 2046 comparing the 2023 through the 2026 Load Forecast values. The 2024 Load Forecast first revealed this surging demand, and every subsequent annual load forecast accelerated the expected growth through the end of the forecast cycle.

[4] Berkeley Lab, 2024 United States Data Center Energy Usage Report (PDF), 2024

Figure 2. PJM RTO Summer Peak Load Forecast – Years 1998 Through 2046: 2023 Through 2026 Load Forecast



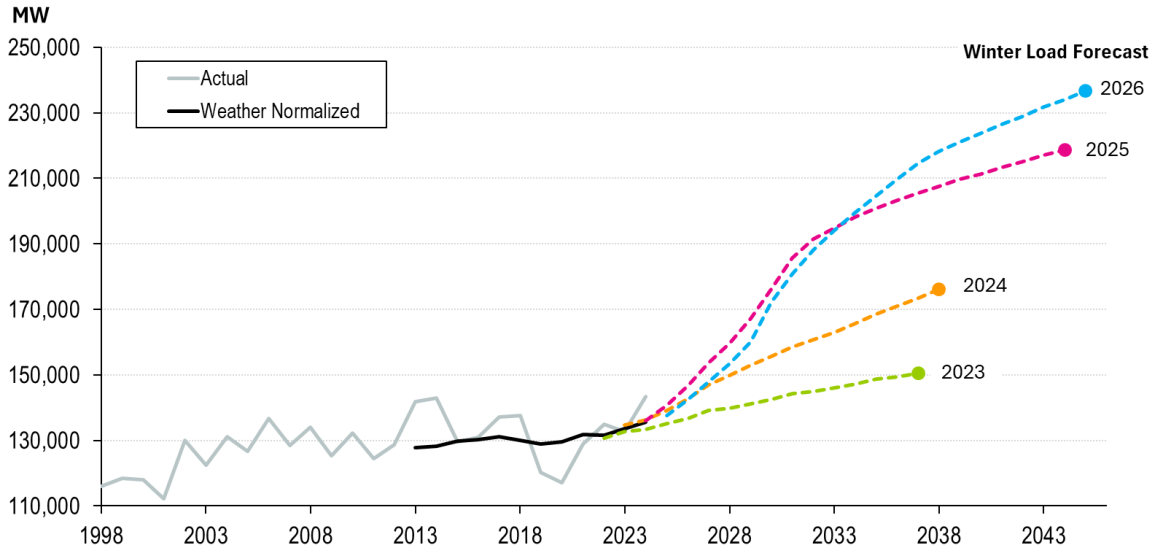
The engine of this growth remains the "shovel-ready" nature of data center developments, which are materializing faster than transmission or generation can be permitted and constructed. While the 2024 Load Report identified Northern Virginia as a localized constraint, 2026 data indicates this growth has evolved into a systemic baseline and is spreading across the entire PJM footprint. The speed of connecting these large loads creates a fundamental misalignment between demand and supply cycles. While gigawatt-scale load can materialize within 12–18 months, this timeline is significantly shorter than the physical construction window for the dispatchable generation required to support it.

The 2026 forecast not only increased the amount of load but fundamentally altered the type of capacity required to serve it.

Perhaps the most critical finding in the 2026 Load Forecast is the shifting risk profile toward winter reliability. The 2026 Load Forecast projects that winter peak demand will grow at a rate of 2.7% over the next 20 years, which is an even faster rate than summer demand growth of 2.4% over the next 20 years. This winter-peaking shift is closing the gap between seasonal peaks, with the winter peak estimated to reach 223 GW by 2040, nearly matching summer demand. This shift is particularly damaging to resource adequacy because it coincides with the retirement of firm thermal generation and the influx of solar capacity. While solar resources provide reliability value in the summer, they offer much less reliability value during the dawn winter peaks that PJM is now forecasting. The impact of these changes is amplified with the risk profile shifting toward the winter months as calculated through PJM's Effective Load Carrying Capability / Reserve Requirement Study modeling. Thus, the 2026 forecast not only increases the amount of expected load but fundamentally alters the type of capacity required to serve it, increasing the necessity for dispatchable, fuel-assured resources just as they are retiring.

Figure 3 shows the PJM RTO Winter Peak Load Forecast for years 1998 through 2046 comparing the 2023 through 2026 Load Forecast values. As is the case in **Figure 2**, the 2024 Load Forecast first revealed this surging demand, and every subsequent annual load forecast accelerated the expected growth through the end of the forecast cycle.

Figure 3. PJM RTO Winter Peak Load Forecast – Years 1998 Through 2046: 2023 Through 2026 Load Forecasts



Supply-Side Constraints: Physical Barriers Over Regulatory Barriers

While a historical narrative embraced by critics points to PJM's interconnection process as the primary bottleneck for new generation, the observed shortfall for the 2027/2028 BRA suggests the constraint has shifted from regulatory delays to physical and economic realities. The failure to clear sufficient capacity is not evidence of a broken process, but rather the result of a "transition gap" where procedural reforms have yet to yield operational new supply.

The Deactivation of 54 GW Between 2011 and 2023

The scope of the PJM shortfall cannot be understood without first accounting for the sheer volume of generation that has exited the system. PJM witnessed the retirement of approximately 54 GW of generation capacity between 2011 and 2023.[5] To put this magnitude into perspective, PJM has effectively deactivated a fleet roughly the size of the entire New York ISO grid in just over a decade.

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At the time, this turnover was manageable and even economically efficient, because as older coal units deactivated due to environmental regulations (such as MATS and effluent limitations) and economics, they were successfully replaced by a wave of highly efficient, technologically advanced, low-cost natural gas generation. During this period, PJM maintained robust reserve margins because the exit of legacy megawatts was balanced by the entry of new gas resources, all against a backdrop of relatively flat load growth.

The structural fragility revealed in the 2027/2028 BRA arises because these retirements were effectively completed before the arrival of the unprecedented load shock. The PJM region consumed its historical capacity surplus to facilitate the coal-to-gas transition, assuming demand would remain static. These retirements directly impacted PJM's baseload units, which fell short of the forecasted minimum hourly load for the same delivery year. When the data center boom and electrification trends sharply steepened the demand curve starting in 2024, the buffer of excess

[5] Energy Transition in PJM: Resource Retirements, Replacements & Risks (PDF), Feb. 24, 2023

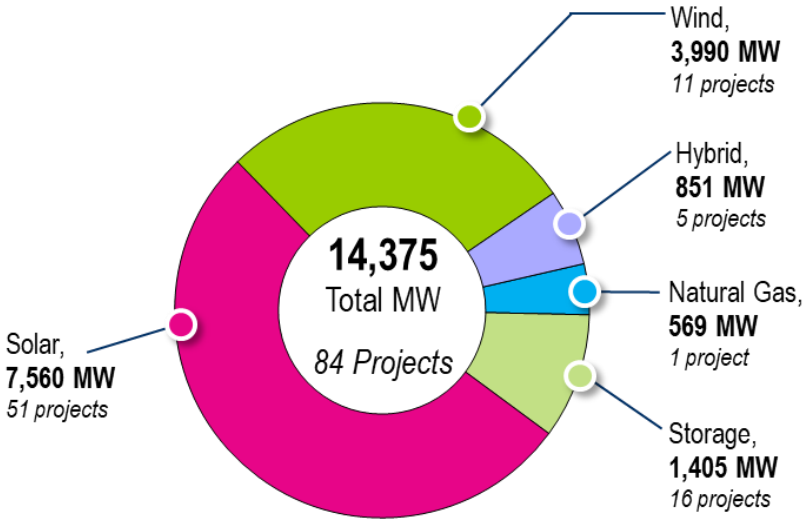
generation had already been depleted. As detailed in PJM's report, Energy Transition in PJM: Resource Retirements, Replacements and Risks, the region is now attempting to replace firm, dispatchable thermal resources with intermittent generation at a replacement ratio that is physically difficult to achieve in the short term. The "transition gap" is therefore not a failure of the previous retirement cycle, but the result of a sudden demand acceleration hitting the grid that had just finished pruning its supply stack.

Interconnection Process Reforms Are Working

While backlog delays were the defining characteristic of the previous decade, PJM has implemented aggressive, structural reforms that are actively clearing the pipeline. In order to be a new resource targeting a commercial operation date of June 1, 2027, or earlier, projects likely had queue submissions dating back to the 2015–2021 time frame.[6] This implies that the investment decisions underpinning the 2027/2028 BRA were effectively locked in based on the pricing environment of 2021, well before the current demand shock and high prices materialized. However, these historical lag times reflect a legacy serial study process, which PJM has since overhauled by shifting to a cluster-based, "first-ready, first-served" model, that has effectively alleviated these processing bottlenecks for future cycles. Although reforming the queue was imperative and a future shortfall was probable given demand trends, the depth of the 2027/2028 deficit was significantly exacerbated by the attrition of approved projects. Since 2020, approximately 24 GW of projects with fully executed interconnection agreements, which include 13.5 GW of natural gas projects, terminated their agreements, demonstrating that projects available for development existed but failed to reach commercial operation.

PJM has successfully completed the processing of Transition Cycle 1, a critical milestone in the shift toward its new cluster-based approach. This cycle has yielded 84 projects totaling 14,375 MW that have completed their studies and are currently in the final stages of negotiating and signing their Generation Interconnection Agreements (GIAs), proving that the administrative machinery is moving again. **Figure 4** shows the TC1 projects by fuel type.

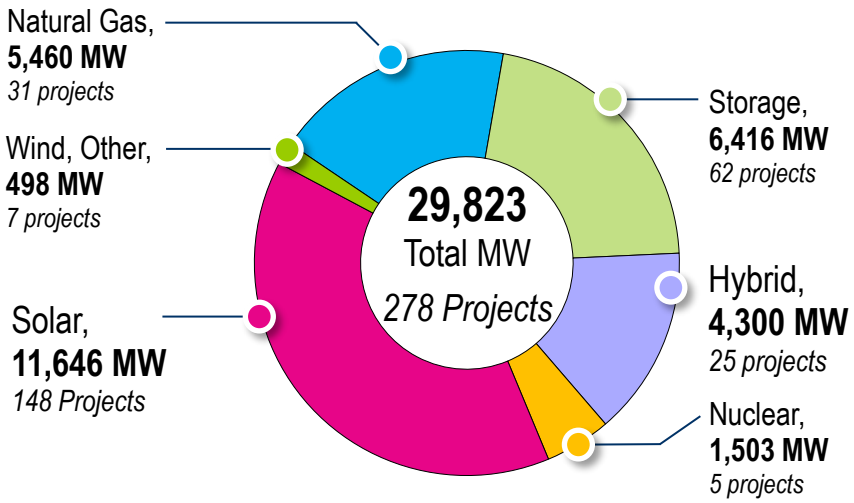
Figure 4. TC1: Projects by Fuel Type (MWE)



[6] PJM, Serial Service Requests Status, excluding RRI projects

In the critical lead-up to this auction, PJM launched the Reliability Resource Initiative (RRI), a targeted bridge designed to identify and expedite shovel-ready capacity. Through this initiative, PJM successfully fast-tracked 41 projects representing 7,897 MW of generation by prioritizing upgrades and expansions at existing sites.[7] These additional queue projects are now part of Transition Cycle 2. **Figure 5** shows current TC2 project selections by fuel type.[8]

Figure 5. TC2: Projects by Fuel Type (MWE)



Looking beyond the already implemented queue reforms, the opening of Queue Cycle 1 in 2026 marks the official commencement of the "first-ready, first-served" era, ensuring that speculative projects no longer block viable ones. Projects seeking interconnection now will be processed in a one-to-two-year turnaround – a timeline that may be further accelerated by enhanced internal process, procedures and technology, as well as coordinating with Google to integrate artificial intelligence into this (and other) processes.

Additionally, approximately 57 GW of projects have completed PJM's study process and have either signed or been offered Generation Interconnection Agreements. This substantial volume of generation represents a verified, near-term pipeline that has survived the new, more rigorous screening process along with those that entered into a final interconnection agreement under the previous serial process. These projects are free to proceed to construction, yet many continue to be slowed or stopped by factors unrelated to PJM.

Local Permitting Issues

Beyond the supply chain and RTO-level studies, developers encounter formidable permitting issues at the local and state levels that frequently invalidate the progress made in the interconnection process. Obtaining a PJM Interconnection Service Agreement (ISA), or GIA, is no longer a guarantee of construction, but can be, in a number of instances, merely a ticket to a contentious local battleground. According to the Sabin Center for Climate Change

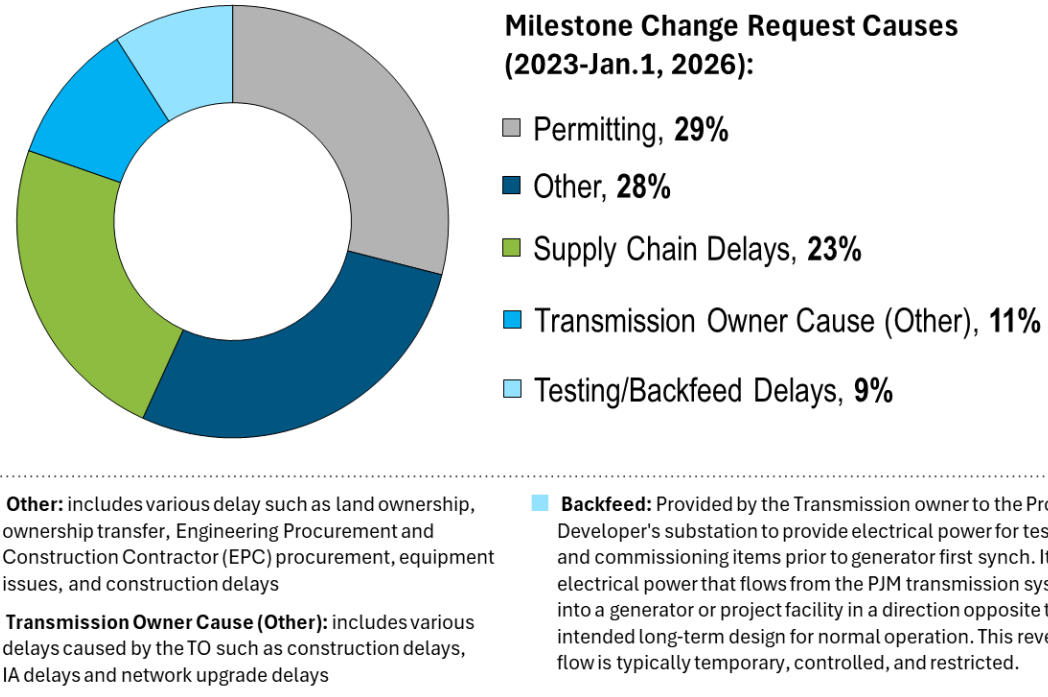
[7] PJM, Reliability Resource Initiative Additional Summaries (PDF), May 6, 2025

[8] Updated to reflect project withdraws, PJM, Reliability Resource Initiative Results Summary (PDF), May 6, 2025

Law at Columbia Law School, at least 30% of utility-scale wind and solar projects are canceled during the siting process, largely due to a surge in restrictive local ordinances and community opposition.[9]

This dynamic is particularly acute within the PJM footprint.[10] PJM has tracked the causes of construction milestone changes since 2023 and reports these values quarterly at its Interconnection Process Subcommittee. **Figure 6** shows the causes of milestone changes since 2023. Permitting accounted for 29% of all milestone change causes since 2023. While the listed categories collectively represent the primary drivers of milestone changes, supply chain volatility exerts influence across all categories. The constrained supply chain is directly attributed to "transmission owners' material" and "project development material" categories.

Figure 6. Milestone Change Causes: 2023 Through 2025



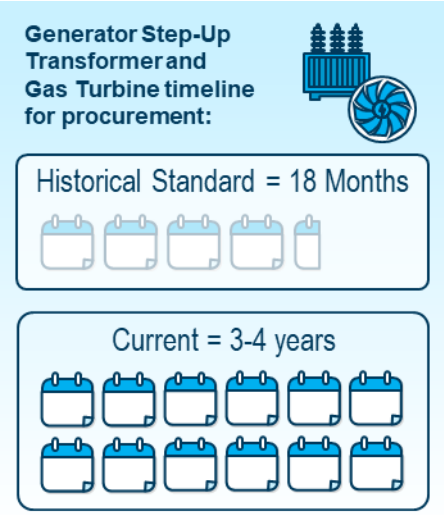
- **Other:** includes various delay such as land ownership, ownership transfer, Engineering Procurement and Construction Contractor (EPC) procurement, equipment issues, and construction delays
- **Transmission Owner Cause (Other):** includes various delays caused by the TO such as construction delays, IA delays and network upgrade delays
- **Backfeed:** Provided by the Transmission owner to the Project Developer's substation to provide electrical power for testing and commissioning items prior to generator first synch. It is electrical power that flows from the PJM transmission system into a generator or project facility in a direction opposite to the intended long-term design for normal operation. This reverse flow is typically temporary, controlled, and restricted.

Permitting problems arise at both state and local levels. PJM's interconnection process contains a significant volume of phantom capacity or projects that appear viable in technical studies but may never actually achieve commercial operation due to local zoning bans or permit denials.

[9] Sabin Center for Climate Change Law, Opposition to Renewable Energy Facilities in the United States: June 2025 Edition (PDF)

[10] Cleanview, Report: Developers Have Cancelled 1,891 Power Projects in 2025

The Supply Chain Slowdown



Even if every viable project were to clear the interconnection process today, developers face a rigid physical barrier that prevents immediate construction. As detailed in PJM's recent Periodic Review of Variable Resource Requirement (VRR) Parameters, the industry has hit a supply chain wall that has a project schedule timeline of the Reference Resource technology longer than the three-year-forward market.[11] The filing provides a stark analysis of the Cost of New Entry (CONE), revealing that the lead times for critical high-voltage equipment have ballooned beyond the auction's planning horizon. Specifically, the procurement timeline for Generator Step-Up (GSU) transformers and gas turbines has extended from a historical standard of 18 months to nearly three to four years, making it unlikely for a new thermal resource to clear an auction and be built in time for the delivery year without significant prior investment.

This physical scarcity is compounded by severe economic headwinds, including a sharp escalation in the cost of turbines and capital expenditure. Yet, because investment decisions are based on total returns rather than clearing prices alone, simply raising the cap is not a panacea. The solution requires a cooperative approach to identify and incentivize those specific market participants who have the supply chain leverage to deliver. The goal must be to attract the entities best positioned to secure critical equipment, like transformers and turbines, and accelerate their deployment to meet the RTO reliability needs As established in Section 3 of the foundational NERA report [12] on Central Resource Adequacy Markets, the efficacy of the capacity auction is fundamentally predicated on the planning horizon that aligns with the actual construction schedule of new resources. The supply chain slowdown and permitting delays have pushed the construction schedule beyond even the normal three-year-forward auction schedule. Thus, the 2027/2028 shortage is a reflection of a supply chain that has decoupled from the regulatory timeline, leaving PJM with a "steel in the ground" deficit that market mechanisms alone cannot instantly solve.

Accreditation: Right-Sizing Resource Adequacy With Effective Load Carrying Capability

A small portion of the drop in relative supply within the capacity markets stems from the implementation of Effective Load Carrying Capability (ELCC) accreditation. While market observers often frame this reduction in total Unforced Capacity (UCAP) as a "loss of resources," it is more accurately described as a "right-sizing" of the reliability value of resources. The transition to ELCC did not physically remove steel from the ground or panels from the fields, but rather, it corrected a long-standing accounting discrepancy from using Equivalent Demand Forced Outage Rate (EFOR) for thermal resources and the

PJM is ensuring that the capacity products bought and sold in the auction represent actual, deliverable reliability.

[11] 2025 Periodic Review of Variable Resource Requirement Curve Shape and Key Parameters (PDF), Dec. 8, 2025

[12] NERA Report (PDF)

average ELCC of intermittent resources as the accreditation value of capacity resources.[13] By shifting from average-based availability metrics to a marginal reliability contribution model, PJM is ensuring that the capacity products bought and sold in the auction represent actual, deliverable reliability during the grid's most critical hours, specifically accounting for correlated outage risks.

The Base Load Generation Resource check remains tied to parameters established under prior EFORd accreditation methodologies, which would result in higher UCAP for the same set of resources. Since the current tariff designed trigger threshold is calibrated to the UCAP of the Base Load Generation Resources, this gap was widened because of PJM's updated capacity accreditation.

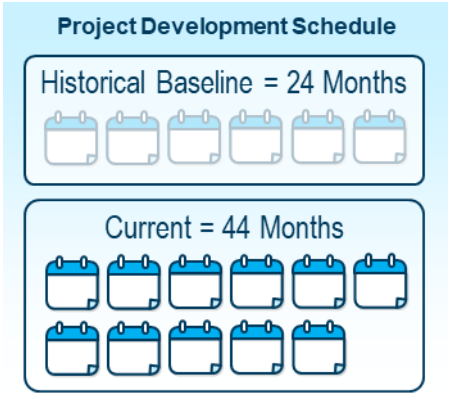
Validating this pivot, the recent independent analysis presented in the PJM ELCC/RRS Model Evaluation Report (PDF) by E3 strongly supports the adoption of these ELCC changes as a necessary evolution in accurately valuing reliability. While the adoption of ELCC is not the cause of the current physical deficit, had this more accurate accreditation methodology been implemented in earlier auction cycles, the market may have revealed the looming shortage through clearer price signals much sooner, potentially accelerating the necessary investment response.

The Economic Reality: Updating CONE and Net CONE

To understand the friction between the market's demand for capacity and the lack of supply clearing the auction, PJM analyzed the parameters that define the VRR Curve. Central to this architecture are the Gross CONE and Net CONE. These metrics are definitive: they represent the theoretical price signal required to incentivize a developer to finance and build the "Reference Resource" in the current economic environment. Crucially, they also serve as a proxy for the price levels necessary to ensure the retention of the existing fleet. A long-run average price of Net CONE value ensures that the capacity revenue is sufficient to cover the "missing money," which is the gap between a unit's total costs and its revenues from the energy and ancillary services markets, thereby signaling both new entry to participate and existing resources to remain on the PJM system.

The capacity market was designed as a residual mechanism to supplement energy revenues, not as a standalone vehicle to fully finance a $2.5 billion capital expenditure over a roughly five-year construction cycle. In short, the market is not accurately pricing the escalating level of risk that investors now confront, effectively freezing capital deployment for large-scale resources.

PJM and stakeholders began their Periodic Review of VRR Parameters at PJM's Market Implementation Committee (MIC) in 2024. While this review process proceeded independently of the immediate auction timeline, the analysis eventually filed in FERC docket ER26-455 provided a stark quantification of the inflationary environment. This analysis revealed that the Gross CONE, the 20-year levelized cost to build a reference plant, has undergone a step-change increase. This escalation was driven less by general inflation and more by specific supply chain bottlenecks, specifically the surge in the cost of turbines and high-voltage equipment. Furthermore, the analysis highlighted that project development schedules have extended drastically, stretching from a historical baseline of 24 months to 44 months.

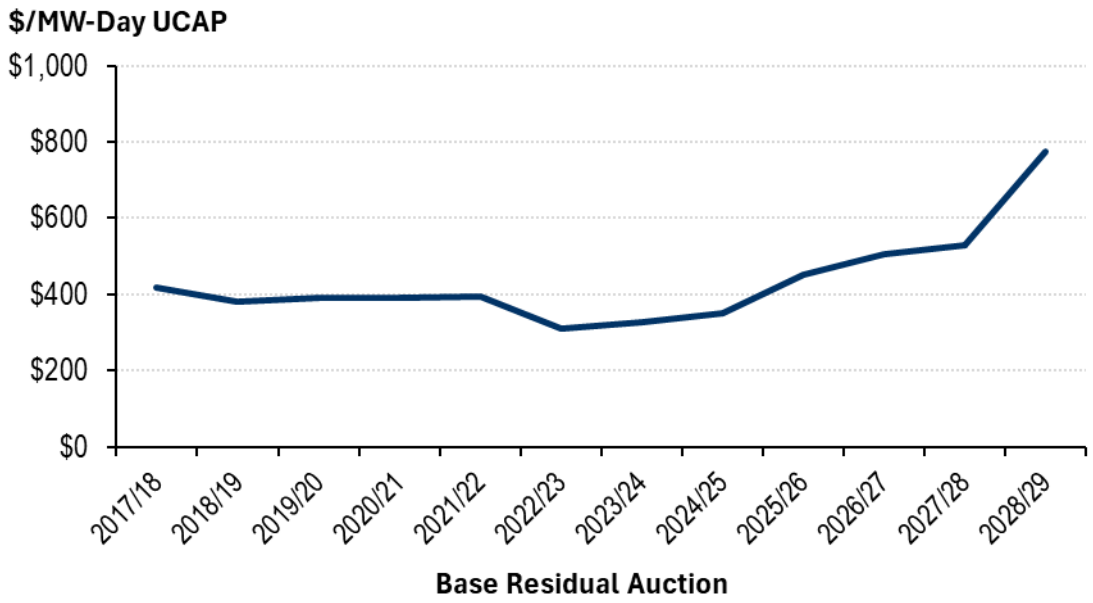


[13] Analysis completed after the 2025/2026 BRA indicated the impact due to ELCC adoption and associated rule changes decreased supply by approximately 2,600 MW as shown on slide 27 (PDF) in the BRA results presentation.

This elongation, compounded by higher interest rates, has ballooned financing costs during construction, directly increasing the Gross CONE. The result is a higher estimated Gross CONE, indicating that resource adequacy simply costs more today than it did in previous planning cycles.

Figure 7 shows the Gross CONE values in $/MW-Day UCAP for the 2017/2018 through 2028/2029 BRA.

Figure 7. Gross CONE ($/MW-Day UCAP): 2017/2018 Through 2028/2029 BRA



Market Design Risks

Regulatory Uncertainty

PJM has endured a pervasive climate of regulatory volatility that also works to inhibit long-term capital investment. This uncertainty manifests across multiple vectors: evolving renewable energy standards and policies that alter the generation mix, persistent legal and permitting challenges facing natural gas pipeline infrastructure, and complex disputes over transmission planning. Furthermore, the capacity market itself has been subject to frequent structural revisions (many initiated by PJM), including the definitions and applications of the Minimum Offer Price Rule (MOPR), the Market Seller Offer Cap (MSOC), and, more recently, capacity accreditation and risk modeling. Collectively, these fluctuating variables create a risk premium that no single auction clearing price can easily overcome, as developers are hesitant to commit billions in capital to a market where the fundamental rules are perceived to be in a state of flux.

The Price Collar and Reliability Leakage

A critical input into the 2027/2028 BRA reserve target shortfall, however, lies in the lag between the evolving economic reality and the administrative rules enforcing the auction. The 2027/2028 Auction was conducted using a price collar derived from previous, outdated CONE values, while the actual offers from generators reflected the current, higher-cost structures identified during the Periodic Review. This arguably created a structural mismatch where valid capacity resources, both potential new entry and existing units requiring refurbishment or reflecting opportunity costs, submitted offers that reflected their true costs above the price collar as detailed in the 2027/2028

Base Residual Auction Report (PDF). These offers, while potentially acceptable under the updated parameters proposed for future delivery years (e.g., 2028/2029), exceeded the price collar enforced for 2027/2028. Consequently, resources that offered above the price collar but below the true reliability value (or the future price cap) were unable to clear.

In any market with locational pricing, the potential for arbitrage is possible if the cost of transport from a low-priced location to the high-priced location does not exceed the price difference between them. Prior to the implementation of the price collar, the PJM capacity price was lower than prices in MISO and NYISO for some locations and periods. As a result, incentives to import capacity into PJM were relatively low, and incentives to export capacity to a neighboring high-priced region were high at times. Consequently, some generation sought higher returns, which created an additional loss of capacity in the PJM region. At the time, this loss to PJM was less consequential because the rapid load growth had not materialized and was not forecasted.

In the most recent auctions where the price collar was effectuated, the PJM price was below the value placed on capacity by other regions for some locations and periods, which resulted in generation offers based on opportunity costs from sales to neighboring regions and/or higher development costs from clearing in the auction. As noted, several of these offers did not clear, contributing to the capacity shortfall. With the load growth fully realized, the loss of capacity resources carries greater consequence for reliability, and those consequences must be considered in the discussion of continuing or abandoning the cost collar.

Potential Corrective Actions

In direct response to the confirmed shortfall in the 2027/2028 BRA, the PJM Board of Managers issued a decisional letter on January 16, 2026, explicitly directing PJM staff to pursue two immediate corrective actions: the initiation of a Reliability Backstop Procurement and a holistic review of investment incentives.[14] Regarding the backstop, the Board has mandated the acceleration of a procurement mechanism to fill the specific reliability deficit for the 2027/2028 Delivery Year. While the specific parameters regarding type of resources, including if a certain level of additional Base Load Generation Resources are needed, price, term and cost allocation remain under development, this directive establishes a clear transitional measure to secure physical reliability.

Simultaneously, the Board explicitly acknowledged that, on its own, the capacity market structure may not provide the stable revenue streams needed to justify new investment in today's volatile and uncertain investment environment. Fundamentally, there are no short-term administrative fixes or market parameter adjustments capable of immediately overcoming the physical realities of the projected shortfall. Because the constraints are rooted in the construction lead times and global supply chain slowdowns, market reforms implemented today will primarily serve to secure reliability for the future, rather than the immediate delivery years. Consequently, the PJM Board has directed staff to undertake a comprehensive analysis in the first half of 2026 to determine how energy, reserve and capacity markets can be evolved to provide cohesive incentives for investment. While the granular details of these reforms are yet to be determined, the Board's directive signals a fundamental pivot. PJM is moving beyond simple parameter adjustments to a structural reevaluation of how the market values and retains the long-lived assets necessary for grid reliability.

[14] Board Decisional Letter on Critical Issue Fast Path – Large Load Additions (PDF)

Conclusion

The investigation into the 2027/2028 Base Residual Auction shortfall concludes that PJM is navigating a “transition gap” marked by a disequilibrium where the accelerated demand has collided with rigid physical and administrative constraints on supply. The investigation confirms that this shortfall was driven by five distinct, converging factors:

1 | **Surging Demand:** The capacity deficit is primarily a denominator problem. The "transition gap" began in earnest with the 2024 Load Forecast, which tripled historical growth rates due to the sudden, shovel-ready proliferation of data centers. This trend was validated and extended by the 2025 and 2026 forecasts, confirming that PJM is chasing a moving target that expands faster than infrastructure can physically be built.

2 | **The Interconnection Bottleneck Has Shifted:** While the previous serial-based queue was a primary source of delay, PJM’s structural reforms have successfully remediated its administrative processing capability. The bottleneck has now moved downstream. The regulatory pipeline is flowing, but the projects exiting it are hitting physical walls.

3 | **Local Permitting:** Projects that successfully clear the PJM queue are increasingly stalling at the local level. The primary friction point for new renewable entry is no longer RTO study delays, but local zoning bans and permit denials.

4 | **Supply Chain Slow Down:** Global supply chain constraints have emerged with lead times for critical equipment like GSU transformers and turbines stretching to three to four years; resources that depend upon this equipment have longer build times.

5 | **The Price Collar:** The administrative price collar on the VRR Curve, depending on its design, can encourage exports and send longer-term investment signals that can inhibit needed new investment.

Ultimately, the 2027/2028 Auction results mark the end of the era of surplus capacity in the PJM footprint. As regional dynamics shift toward tighter supply levels, our path forward involves a greater emphasis on active implementation and project completion. Until the supply mix can meet the increasing demand, PJM is focused on maintaining high standards of reliability within a more sensitive operational window. The “transition gap” is bridgeable but will require pursuing the Reliability Backstop Procurement and a holistic review of investment incentives.