# Stakeholder Comments

**Topic 1:** What issues should be included or out of scope for the CIFP-LLA Issue Charge? The PJM Board letter indicates a desire to receive stakeholder feedback on the proposed scope of the CIFP.

**Topic 2:** What comments would you like to provide on the PJM conceptual proposal? Reference: PJM conceptual proposal presentation from the August 18 Pre-CIFP Workshop

**Section 1 shows stakeholder comments posted without attribution.**

**Section 2 shows stakeholder comments posted with attribution as requested by the commenter.**

## Section 1

### Organization 1

#### I. Scope of CIFP-LLA Issue Charge

PJM needs to readjust the priorities of dealing with large load additions; the current initiative starts at the wrong point of analysis. PJM should first address foundational issues of accurate load forecasting, a seasonal market construct with revised accreditation that accurately values existing generation, and incentives to bring new generation on faster. We need to look for solutions that encourage and accommodate new load – not proposals that will send away investment from our communities and send a clear message to data centers and other large loads that we do not want them here, as the current CIFP-LLA does.

#### A. Priority - Load Forecasting.

Confidence in PJM's ability to forecast future load is a prerequisite for any policy concerning large load additions. PJM should not make substantial revisions to the load addition process without first verifying the problem exists to the magnitude it currently believes.

An RTO-level large load intake process should be implemented. Under this process:

- Developers of large load would notify PJM, not to seek approval, but to obtain a unique identifying number.
- The identifier would serve as a tracking tool for PJM and LSEs to monitor projects and eliminate duplicative inclusion in load forecasts.
- When the TOs submit their forecasts, PJM then can identify duplicative projects by their index number and ensure each project is only included once in the RTO's forecast.
- Forecasting should be adjusted by the "worst-case scenario" (e.g. a project that is submitted to both a constrained and unconstrained LDA should be modeled in a constrained LDA).

- While developer-specific details would remain confidential to PJM, the identifier and date of entry would be publicly accessible through a portal, similar to the current generation interconnection queue.

Such a process would not only improve transparency but also credibility and faith in PJM's load forecast. Then, and only then, can we address how to accommodate and serve the incoming large load.

**B. Priority - Seasonal Market Construct & Revised Accreditation**

Reform to a seasonal market construct with a revised accreditation framework is also essential. The current framework places disproportionate emphasis on winter reliability risk without offering a mechanism, such as a sub-annual auction, to compensate resources across other seasons. This distortion reduces the value of certain resources and contributes to a devaluation of our current resources and imbalances in the capacity market.

**C. Priority - Facilitating New Generation.**

Large load should be encouraged and incentivized to bring generation. PJM should focus on those incentives, through measures such as providing flexibility or prioritization in the interconnection process for generation that is clearly associated with new load – as long as it is closely matched in ICAP, front-of-the-meter, and reasonably localized.

However, this must not include behind-the-meter co-located generation or simply pulling existing resources from the broader supply stack. This dynamic increases costs to consumers by shifting them from paying for existing, depreciated capacity to financing new builds—and it exacerbates resource adequacy concerns.

**D. Out of Scope: BTMG and NRBTMG.**

BTMG and NRTMBG are fundamentally different than the considerations of large load additions are out of scope for this CIFP. Furthermore, NRBTMG constitutes a very small amount of overall generation, and PJM has much more pressing priorities to address.

PJM has already correctly noted that the BTMG model does not apply well to co-location scenarios involving large loads. It was originally developed for much smaller and distributed installations – not for high consumption, single point facilities like data centers. Large co-located loads, such as data centers paired with behind the meter generation, present significantly greater operational risks than traditional BTMG arrangements. This arrangement would require these loads to co-locate with generation through the same point of interconnection (unless an EDC consented to serve) thereby concentrating large amounts of risk from both the load and generation sides of the meter. In emergencies or outages, their reliance on the grid could severely impact resource adequacy and system reliability.

Additionally, simple netting of generation against load could allow these facilities to avoid most, if not all, costs by netting out to zero as the entire load is supplied by the co-located generator, despite the co-located loads reliance and benefit from the grid. This would shift costs and burdens unfairly to other users, violating core principles of just and reasonable ratemaking.

## II. Comments on PJM Conceptual Proposal

The objectives identified in PJM's conceptual proposal are appropriate in broad terms, but the mechanism proposed to achieve them is misguided. Any approach that relies on penalties and discriminatory curtailment of certain customers must be categorically rejected.

Fair and reasonable markets cannot be achieved by imposing new obligations and penalties on only one class of new load based solely on their size and when they showed up.

### 1. Mandatory NCBL obligations are unacceptable.

Such requirements would directly conflict with the statutory obligations to serve of many EDCs/LSEs, including Organization 1. Furthermore, mandatory NCBL would almost certainly fail under FERC's nondiscrimination standards. It is impermissible to single out one type of customer for punitive treatment, e.g. bring your own generation or be first on the list to face mandatory curtailment, while other load additions are not subject to similar requirements.

### 2. Voluntary NCBL is not a practical solution.

Even if structured as "voluntary," large load customers are unlikely to accept reductions in reliability. Instead, they would be forced to build redundant backup systems, further straining already limited supply chains for generation equipment.

### 3. Expansion of NCBL to existing load must be rejected outright.

Attempting to impose new obligations on customers that have already sited facilities and invested in PJM states would create severe economic and legal risks, as well as further exacerbate the lack of trust and stability in PJM markets and governance.

### 4. Focus on positive incentives.

Organization 1 encourages and supports PJM's suggested alternatives / additional measures such as prioritization of BYOG interconnection and improved demand response programs. These measures are constructive, nondiscriminatory, and consistent with both PJM's market design principles and federal policy and should be offered to both existing and new large loads. By contrast, penalties and mandatory NCBL obligations would distort markets, deter investment, and expose PJM's Tariff to serious legal challenges.

## III. Conclusion

Adopting punitive measures that disadvantage and burden large load customers is not an effective nor appropriate measure of addressing underlying resource adequacy concerns. Instead, such measures will deter economic development and discourage new investment in the PJM footprint.

The appropriate course is to improve forecasting, fairly and accurately value our current generation resources, and accelerate the entry of new generation. Demand response and front-of-the-meter BYOG should be promoted through incentives that apply fairly to all customers. Under no circumstances should PJM proceed with mandatory NCBL obligations or other penalty-based approaches.

Organization 1 appreciates the opportunity to submit these comments and urges PJM to refocus the CIFP-LLA initiative on constructive, incentive-based measures that strengthen reliability and support continued growth across the region.

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**Organization 2**

Chair Mills and Members of the PJM Board:

Thank you for the opportunity to provide feedback on the scope of fast-path consideration of market reforms to address large load additions.

Organization 2 supports considerations to assure reliable operations, however we remain steadfast that PJM must permit its market to work in a fashion such that prices reflect prevailing and projected supply and demand. Effective market operation should be a cornerstone of any solution to reliability challenges. PJM should not shirk its obligation to provide non-discriminatory markets and operations, especially in administration of its interconnection queue. PJM has already provided preferential interconnection for 51 generation project that are purportedly "shovel ready" yet will not come online up to seven years.

*Resource Adequacy*

We appreciate the Board's focus on assuring reliable operations in the face of what appear to be generational changes in the rate of demand growth. As a first principle, addressing this challenge requires an accurate demand forecast. Presently, transmission owners do not have a standard method of projecting data center integration. Consequently, there are varying degrees of certainty with each transmission owner's projections. PJM should standardize the metrics it requires TO load forecasts to meet. For example, PJM should require that all data centers included in the PJM load forecast are contracted for interconnection with their host utility and have provided material financial consideration that indicates the large load is not merely securing an option to build.

Turning to PJM's Non-Capacity Backed Load proposal, we appreciate the creative thinking, but do not see a jurisdictional basis on which the proposal could be implemented. Put simply, PJM has no apparent authority to require any load to interconnect without a capacity allocation. If states and their jurisdictional TOs are willing to institute such mandate, then perhaps the concept could be viable from a legal perspective, although it appears unduly discriminatory on its face.

Additionally, we are troubled that the outcome of PJM's proposal (irrespective of its legal viability) would truncate prices despite potential an aggregate capacity shortfall. If prices during resource scarcity fail to accurately reflect cost of entry, then the market will not perform as designed to motivate investment.

Considering potential expansion of demand response opportunities for large load and developing the option for large load to elect *voluntary* NCBL service makes sense. While such reforms may not be a cure-all for the expected supply/demand imbalance, they are market-based methods that address PJM's reliability concern.

We note that some parties, including PJM, have indicated a preference for prompt auctions. We do not agree that such a reform would benefit reliability. As a wholesale supplier of power to serve TOs default service obligations, we observe that moving to a prompt capacity auction will

disrupt current state load auction structures, which is undesirable. Moreover, prompt auction structures will not provide a forward market signal for merchant generator investment or PJM transmission solutions.

*Interconnection*

PJM's interconnection queue transition is working as designed. PJM and developers are moving apace to issue Generation Interconnection Agreements. PJM has often suggested that generator projects with a GIA are not progressing swiftly to construction. From our vantage point as a solar/storage developer, such suggestions are misleading. PJM staff has little commercial development experience, resulting in the misplaced expectation that generators have little impediment or risk of reaching completion by once a GIA is issued. However, obtaining the interconnection agreement is roughly a midpoint in the development process. After obtaining a GIA, developers must obtain permits from various jurisdictions, obtain generator components, and construct the facility; all while anticipating that transmission owners will complete their network upgrades in time for the facility's commercial operation date. Such challenges are not cabined to renewable projects, they also attach to thermal projects. Impediments such as turbine acquisition, permitting, and construction face thermal development, too. The takeaway from this comparison is that the Board should not contemplate discriminatory interconnection practices that favor thermal generation development – like the Reliability Resource Initiative – under the misplaced belief that renewable development is somehow impeding thermal development.

PJM has also proposed expansion of provisional deliverability that would enable generators that are ready to produce energy (even if not to full capability) to inject power on a provisional basis. Such provisions could alleviate some pressure caused by a dearth of new supply. However, PJM must assure that all market participants have notice of the request and approval for such service. Absent very transparent notification, developers of provisional resources will have competitive advantage in power trading since they will know that unexpected power injections will occur at a location, thereby changing power prices.

PJM should consider available opportunities to decrease the time in which interconnection studies are processed. Decreasing study time, perhaps through technology improvements, will decrease risk for all projects. Additionally, investment response to market price signals to will occur closer in time to the supply/demand imbalance that the market prices indicate, thereby limiting the period of supply/demand imbalance.

Thank you for the initiative to seek creative and immediate solutions to address apparent growing demand, especially from data centers, in the face of myriad investment challenges. As you contemplate the challenges and their solutions, please remain mindful of the power of well-designed markets to address these issues and PJM's commitment to market solutions.

We look forward to working with PJM Board and staff on these endeavors.

**Organization 3**

Organization 3 appreciates the opportunity to provide comments on the Pre-CIFP Workshop on the Non-Capacity Backed Load ("NCBL") proposal. Organization 3 supports PJM's efforts to ensure the resource adequacy needs of existing load customers while planning for data center load growth. While we are currently reviewing the specifics of PJM's Non-Capacity Backed Load proposal, we see many advantages in the proposed concept.

Organization 3 submits the following comments.

1. Organization 3 would like Non-Retail Behind-The-Meter Generation to be expressly deemed "out of the scope" of this CIFP process.

2. Organization 3 is concerned about requiring the EDC/LSEs to be responsible for the operation of disconnecting the NCBL. Not all EDC/LSEs are members of PJM; additionally, not all of the EDC/LSEs have 24-hour/day dispatch/operations centers. Therefore, there lies a potential for failures on several communications links that would not allow for the directive to open breakers to be completed in a timely manner.

4. PJM has indicated that NCBL is a temporary solution. Organization 3 agrees with this being temporary but would like to have the loads that are NCBL continue as NCBL throughout the delivery year and not be allowed to change status from NCBL to capacity-backed load until the end of the delivery year, once considered as NCBL during the BRA. Questions were raised during the workshop over the air permits requirements for on-site generation and the exemptions available. If PJM determines that the NCBL needs to be curtailed, will this be considered an emergency and therefore allow exemption from the air permits? If not, PJM risks having a lower participation rate in NCBL programs.

**Organization 4**

Comments on Scope

- We support addressing mechanisms to meet anticipated load growth.
- We have the strongest preference that such mechanism(s) be consistent-with/supportive-of competitive market principles.
- The content as proposed may go beyond PJM's jurisdiction or otherwise relies on corollary state or utility action for success.
    - Workplan within CIFP should allocate time to address jurisdictional matters.
- Given the breadth of work proposed here, we believe the proposed timeframe is overly optimistic.

Comments on Conceptual Proposal

- Based on PJM's stated supply and load expectations through 2030, NCBL concept's primary purpose appears to use price suppression (capacity and energy) to achieve desired outcomes in lieu of market-based solutions to resolve issues. This is an unsupportable outcome.
    - The CIFP Workplan should allocate time to consider direct and indirect market impacts.
- NCBL as proposed would cause harm to investors in supply (via suppressed market signals) and to investors in load (via unserved customers). Yet there appear to be no impacts on utilities (eg., all projects still go through RTEP). A more equitable approach is required if the solution set is going to result in winners and losers.
- The proposed pro-rata load reductions as contemplated under NCBL are not likely to be feasible with current technology.
    - Even if these (and other) reductions were feasible, they only work if the local EDC utility tariffs are similarly aligned.
- We support PJM seeking ways to establish "express lanes" for generation interconnection tied to incremental load additions.
- It is unclear what a large load-specific ELCC class for DR is intended to accomplish versus the existing class.
    - We recommend further exploration that considers the types of customer backup service to support DR actions (i.e., what types of backup generation do large loads utilize) and the limitations of such services.
- We recommend the solution set be simplified (*eg.*, could voluntary NCBL service by customer in lieu of mandatory/pro-rata application suffice)
    - An alternative solution should also consider how to engage the retail/utility tariffs in the workstream.

**Organization 5**

**Initial Feedback on Non-Capacity Backed Load (NCBL) Conceptual Proposal**

- **What issues should be included or out of scope for the CIFP-LLA Issue Charge?**
  - Existing Load Adjustment Rules: As the proposed market reforms for Non-Capacity Backed Load (NCBL) are a backstop mechanism to manage demand uncertainty in RPM for a transitional period, the following existing load adjustment mechanisms should be out of scope for this CIFP effort:
    - Non-Retail Behind the Meter Generation rules and processes
    - Behind the Meter Generation rules and processes
    - Peak Shaving Adjustment rules and processes
    - Price Responsive Demand rules and processes.
    - Note on slide #7, PJM enumerated the existing options for load to manage price risk and procure supply and stated that "they believe these should be preserved". The same should be true with the existing mechanisms that load uses to manage quantity.
  - Load Forecasting: While the PJM's Load Forecasting methodologies can be considered out of scope, since the outcomes are critical for the RPM clearing processes, Resource Adequacy Studies and ELCC calculations, the following should be considered in scope:
    - Process and information provided during the LLA processes by LSEs/EDCs.
    - The timing of Load Forecasting process, including mid -year adjustments.
  - Self – Supply Capacity Options: While the discussion can be considered out of scope for this this CIFP, reforming capacity market rules should continue to return RPM to a residual structure where all LSEs/EDCs (including Munis and coops) can have a greater opportunity to match their load obligations with capacity supply that is not directly procured through RPM. Reform of FRR, including partial FRR opportunities, must be explored in the Capacity Reform Initiative that may be approved by stakeholders that is currently scheduled to begin in 2026 after the consultant evaluation of the sub annual construct is complete.
  - Demand Response (DR): DR is a supply resource and is defined as a Market Seller not a Market Buyer. As this effort is focusing on demand (load) management mechanisms, rules to modify DR in RPM, FRR or energy market participation should be Out of Scope for this effort but may be considered in a future scope immediately after the filing in December as part of the Load Flexibility initiative that may be approved by stakeholders.
  - 2025 Quad Review – Should be considered out of scope since the effort is already underway and defined per the tariff. Proposed market reforms for Non-Capacity Backed Load (NCBL) are a backstop mechanism to address immediate shortfall and reliability needs that may occur independently of the outcome of the quad review.

- **What comments would you like to make on the PJM conceptual proposal?**

- The following critical details need to be developed and included in the matrix:
  - Definition of NCBL: What it is and what is not.
    - Understanding the potential behavior.
    - Will it be considered critical or is there now a revised definition of critical load.
    - What will rate designs and technology be supporting this load. When are the contracts / commitments / attestations required?
    - What existing RPM mechanisms cannot be NCBL (to avoid double counting)
    - What is considered "incremental" if LLA has already been including in a load forecast for the 28/29 BRA.
  - Operational Requirements
    - What are the expected requirements for the LSE /EDC to respond to pre-emergency
    - What technology/supervisory controls are expected of the LSEs/EDCs with NCLB to respond to the pre-emergency operation step and will they be defined by the PJM or by the State that oversee and verify by the service obligation?
    - Adherence to prevailing and expected NERC standards for data center load as NCBL gets defined in PJM.
  - Calculation of Obligation Peak Loads
    - Impact to existing COLA rules
    - Impact to load in the zone/areas of RPM
  - New Processes for Bring Your Own Gen (BYOG) for specifically for NCLB
    - Solicitation and Timing (with the IAs)
    - Will there need to be true ups.
    - Improved planning processes and transparency
  - Large Load Adjustment (LLA) Processes (appendix B of M19)
    - The current guidelines need further definition and rules memorialized to incorporate best practices from the last two reports and to align with the needs of the NCLB.
  - Transition Rules
    - If this will be implemented for the 2028/2029 BRA, the applicable LF report (2026 LF Report) for this auction has already been published prior to the approval of the CIFP filing, transitional rules will need to be defined:
      - Exception rules to allow participation from LLA that were included in the 2024, 2025, and 2026 Load Forecast Reports or
      - Rules to limit participation to the LLA included 2027 Load Forecast Reports.
  - Provider: LSE/EDC only. No 3rd Party provider.
  - Settlement: Calculation of NCBL Credit

- Note: PJM should leverage the best practices from existing load adjustment mechanisms rules, wherever practicable.

**Organization 6**

In preparation of the CIFP process that will commence on September 15, 2025, the following feedback is offered to PJM on the concepts that it presented to stakeholders at its August 18th Pre-CIFP meeting.

Feedback on Objectives and Scope of the Issue Charge:

- Addressing the challenges of Large Load additions should be one of PJM's top priorities to ensure future resource adequacy and reliability. PJM should evaluate transitional solutions that allow large loads to interconnect reliably while the region develops the necessary generation and transmission infrastructure to support those loads. Further, PJM must also address the need for more coordinated planning of large load connections, generation development and transmission expansion on a permanent basis.
- Concepts should focus on providing EDCs seeking to interconnect large loads with incentives to bring resource adequacy solutions that facilitate the reliable interconnection of these loads, and allow some flexibility in approach, whether through incremental new generation, demand response, or other approaches that maintain resource adequacy requirements. Additionally, any ultimate solution must respect state regulatory frameworks.

Feedback on PJM proposal and "Pillars"

- PJM should explore the non-capacity backed load (NCBL) concept as a potential transitional tool to aid in achieving future resource adequacy and reliability.
- However, PJM and stakeholders should carefully consider the feasibility of the NCBL concept and the interplay between wholesale and retail electricity rates. For example, a core incentive for Large Loads to participate as a NCBL is foregoing capacity charges in exchange for being first in line to shed load during emergency events. This incentive may not be possible without modifying a state's retail rates through legislation or state regulatory approval.
- PJM also needs to take into consideration the impact that this may have on generation resource obligations in the energy and ancillary service markets. Capacity resources that must-offer in the energy market operate on the premise that as a capacity resource they serve the load that is paying for the service. For example, an LSE with generation and customers, does not want to commit its resources on cost to serve NCBLs in another LSE's service territory. Additionally, PJM needs to clarify how NCBLs will be customers in the context of the Capacity Performance and shortage pricing constructs – for example, whether it is warranted to examine the applicability of current business and settlement rules as they pertain to the presence of NCBLs in PJM markets during Performance Assessment Interval (PAI) and/or shortage pricing events.
- Under the NCBL concept, or any market design that bifurcates load, PJM and stakeholders must consider how that will impact the allocation of capacity obligations of large load adjustments (COLA) between LSEs/EDCs within a capacity zone.

- If under its NCBL proposal PJM requires load to bring your own generation for large loads, PJM should establish an accounting system that will match load directly to generation. For example, if a 1,000 MW unit is brought online to serve 250MW of load in year one, the resource should be able to claim 750 MW for future incremental LLAs.
- As part of the scope of the CIFP, PJM should carefully consider the potential unintended consequences of implementing its NCBL and perform supporting analysis. For example, PJM should perform a forecast of NCBL participation, how often NCBL curtailments will occur.
- PJM should also examine and review potential changes to its backstop provisions to prevent a resource adequacy shortfall. This would require reforms to its existing backstop provisions that require the auctions to clear at least 1% below the reliability requirement 3 years in a row before acquiring resources through an alternative conduit.
- NCBL will have an impact on the Variable Resource Requirement curve. PJM should consider the impacts that this will have on planning parameters, especially those being contemplated through the Quadrennial Review process, and forecasting of the Installed Reserve Margin, Forecasted Pool Requirements and ELCC modeling.

Accelerated interconnection Process Concept

- PJM should explore accelerated interconnection enhancements in this process. This should also include any enhancements that will provide greater coordination between generation and customers interconnections with the PJM regional expansion planning of electric transmission assets. PJM should also examine improvements to existing options, such as its State Agreement Approach (SAA) that can further interconnect customers and generation along with its associated electric transmission.
- Any interconnection enhancements should accommodate those similar products or programs that are offered by transmission owners and/incumbent utilities to customers within their states and service territories that will facilitate a more rapid, reliable interconnection to the electric system. Enhancements could include a process that prioritizes projects (e.g., bundled with load, transmission, and generation with high ELCC accreditation), building on the scoring elements of the RRI.

Demand Response Enhancement Concept

- Any enhancements to the Demand Response should accommodate those similar products or programs that are offered by transmission owners and/incumbent utilities to customers within their states and service territories that will facilitate a more rapid, reliable interconnection with the electric system.

**Organization 7**

Thank you for the opportunity to provide feedback on PJM's presentation last week. My initial observations on the NCBL proposal are as follows:

- For EDC/LSEs that want to avoid having an LLA that might implicate the proposal, the proposal may actually provide them an incentive to inflate/pad their baseline load forecasts to make it seem like their "organic" growth is higher to avoid having to make an LLA when/if the time comes. This underscores some feedback that was provided on August 18th by participants that PJM should focus attention on judging, and discounting if necessary, utility load forecasts and updates to those forecast/LLAs.
- If the curtailment risk is on an LSE/EDC but not particularly the large load, it is hard to understand why a large load represented by an LLA would voluntarily choose the NCBL option.
- Assuming very few large loads volunteer for the option, a mandatory NCBL as proposed, coupled with a BYOG proposal, would likely be unsuccessful. Again, since the curtailment of load is at the LSE/EDC's discretion, a utility may choose to curtail loads other than the new large load. If that is the case, either by agreement between the large load and utility or just based on a utility's preference, the NCBL service degradation won't incent the large load to bring their own generation.
- PJM should consider an accelerated BYOG interconnection process for large loads in the LLA, regardless of the NCBL proposal.
- If PJM implements the NCBL, there has to be an obvious pathway towards fixing the underlying issues that drive its need, including accelerated pathways to add new generation or monetize load flexibility.
- Generally, mandating load curtailment at or near the reliability requirement without consideration of customer VOLL or customer willingness to pay for reduced service merely to suppress capacity prices will mute price signals for both economic load flexibility (DR) and additional supply, ironically likely degrading reliability.
- The sum effect of the NCBL proposal disproportionately benefits a particular member sector- transmission owners. The suppression of capacity prices well-below Net CONE creates bill headroom for retail consumers relative to the alternative, allowing utilities to continue their rate-based investments unimpeded by broad affordability concerns. The muted capacity price signal reduces the economic incentive for competitive generation to enter the market to provide contributions to reliability, bolstering arguments by restructured utilities that state policymakers should allow them to own generation, consequently shifting reliability risk from wholesale market participants to retail consumers. And finally, inclusion of LLAs in the RTEP and transmission planning load forecasts drives transmission investment opportunities TOs are largely the only entities able to take advantage of.

- Finally, a questions/observation: How will the large loads/LLAs in some LDAs be considered/modeled for CETO/CETL purposes, or is PJM's NCBL proposal exclusively focused on the RR of the RTO-wide capacity clearing process? For instance, will NCBL be used for a particular LDA if their CETL/CETO causes their area to break out, but the whole region clears below the RR?

As for my thoughts on the demand response portion of last week's presentation:

- As long as capacity costs are allocated on a summer 5 CP basis, voluntary economic DR participation will lag. Customers with flexibility that directly pay PJM capacity costs as a pass through at the retail level have the ability and incentive to pay little-to-nothing for capacity any given year by merely curtailing during the summer 5 CPs. This small number of billing determinants drives non-economic bypass of capacity costs, and the use of summer months to allocate the costs is now inconsistent with the winter risk that the capacity market is working to solve today. If customers are able to be flexible, why would they choose DR, which is applicable throughout the year, gets an accreditation haircut, and comes with performance risk if they can just peak shave during the hottest day in the summer and save even more money? Until the rate design for capacity is fixed, I find it hard to believe DR-interested/able customers will sign up in any meaningful amount. Although I think significant thought should ultimately be given to the cost allocation and rate design of wholesale capacity costs and that more considerate ideas should ultimately be explored, as an interim measure a 12-CP rate design for capacity could be considered. This would increase the number of billing determinants and reduce the likelihood of non-economic bypass, and it would increase the likelihood that customers with inherent economic flexibility are more likely to participate in well-designed wholesale DR programs.

Thank you for your consideration of this feedback and the opportunity to provide it.

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**Organization 8**

**Question: What comments would you like to provide on the PJM conceptual proposal?**

We generally support the conceptual proposal key elements, with an emphasis on the first two of the three pillars. Our general thesis is that Data Centers and Load Serving Entities would be interested in this NCBL service IF it enabled more rapid interconnection of these large loads. Without that pull, the other way this would be of interest is if PJM made it mandatory (which seems like a tough pill to swallow on it's own). Therefore, we'd suggest tweaking the proposal to offer a stronger carrot for participation. Given the retail community controls load interconnection at the individual customer side, you may need to think more systematically about how PJM allows LSEs to add load from a wholesale perspective.

The expedited service concept for new BYOG is also greatly of interest and promising IF it supports more rapid development of data centers. If it doesn't help customers get online, hard to see how the concept will move the needle.

The third pillar, changes to DR for data centers, seems less likely to work. It could work if required. But my sense is that the big pull is for new service faster. What's the incentive here compared to NCBL? If the NCBL service allows avoidance of capacity payments and so does DR, why would a data center do NCBL if it can avoid more frequent dispatch by doing DR?

Overall, it'd also be ideal to see this NCBL service touch transmission service. Would a customer under NCBL still be paying for firm transmission service when it is being interrupted for capacity? Can PJM make that change under its tariff or just the TOs under the CTOA? If it's a bigger mountain to climb, it makes sense maybe to leave it out of this phase but consider for future stakeholder process phases.

**Organization 9**

Organization 9 provides comments on the three elements of PJM's Large Load Additions Conceptual Proposal — Non-Capacity-Backed Load**,** Priority Interconnection for the "Bring Your Own Generation" Model, and New Demand Response Products. While PJM's proposal may offer incremental relief, it does not provide a durable solution compared to expediting the interconnection of queued resources.

### 1. Non-Capacity-Backed Load (NCBL) Option for Large New Load

The capacity market plays a critical role in providing proper incentives to develop the resources necessary to meet PJM's reliability requirements. The effectiveness of the capacity market depends on predictability and durable rules, not on short-term interventions. Introducing uncertainty through ad hoc adjustments could discourage investment and delay new resource entry which is ultimately counter to PJM's own objectives of reliability. NCBL is a temporary accounting adjustment that does not address the persistent delays in processing and studying resources in the interconnection queue. While Organization 9 commends PJM for processing 140 GW[1] of projects, including 46 GW ready for construction, significant work remains. More than 127 GW[2] of predominantly renewable resources, representing an estimated 43.28 GW of ELCC capacity[3], are still being studied in the queue. This does not include the 21 GW of hybrid storage and solar/wind resources that are still awaiting completion of their Facilities Study.

| Resource Type | Nameplate Capacity (GW) | ELCC Adjustment | ELCC Capacity (GW) |
|---|---|---|---|
| **Gas[4]** | 3.98 | 60% | 2.4 |
| **Offshore Wind** | 20.26 | 69% | 13.97 |
| **Onshore Wind** | 9.32 | 41% | 3.81 |

[1] When PJM states that queue reform has resulted in, "processing of over 140,000 MW of queued generation projects", we take that to mean the completion of a Facilities Study.

[2] U.S. Interconnection Queue Data Through 2024: Complete Interconnection Request Dataset and Summarized Data Workbook | Energy Markets & Policy. The table reflects the data from Lawrence Berkeley National Lab and is an aggregation of GWs from all the recorded resources requesting NRIS service that have not completed their Facilities Study.

[3] Here we use PJM's 2026/2027 ELCC values 2026-27-bra-elcc-class-ratings.pdf

[4] To be conservative, we are assuming all resources are Combustion Turbines ignoring that some of these projects might in fact be gas resources with higher ELCC rating such as Combustion Cycle resources.

| | | | |
|---|---|---|---|
| **Storage**[5] | 37.14 | 50% | 18.57 |
| **Solar** | 56.69 | 8% | 4.53 |
| **Total** | | | 43.28 GW |

Even after accounting for PJM's conservative capacity accreditation[6], as well as the challenges facing offshore wind, permitting and supply chains, the queue still contains sufficient capacity to meet the projected 30 GW of incremental peak demand from data centers. Because this data may not be as complete or accurate as the data PJM maintains on its own queue, we ask PJM to provide a table showing the amount of capacity in the various queues as well as the projected ELCC capacity.

Further, the table above does not reflect the additional capacity that could be enabled through Surplus Interconnection Service (SIS). Underutilized points of interconnection at existing thermal facilities could accommodate approximately 74 GW of solar and 5 GW of wind by 2030, equivalent to about 8 GW of additional ELCC capacity.[7] Additionally, installing 23 GW of six-hour battery storage at existing renewable sites could enable an additional 28 GW of solar and 25 GW of wind, yielding 32 GW of ELCC capacity—precisely matching PJM's forecasted incremental peak demand.[8] Regarding SIS, PJM could take further steps to unlock SIS potential, for instance, by allowing developers to choose a co-location configuration rather than requiring such projects to be treated as hybrids. This is because the hybrid model complicates the ability to manage and separate offtake agreements between the solar/wind and storage resources using the same interconnection point. The commercial complexity can be so burdensome that it effectively nullifies the value of SIS, and developers will not move forward with such projects.

Accordingly, PJM should prioritize both accelerating the interconnection study process and fully enabling the use of SIS, rather than distorting market signals through demand carve-outs. The real bottleneck is PJM's inability to clear the queue and facilitate timely interconnections. FERC Order No. 2023 already provides the blueprint for doing so. Yet, despite citing concerns about meeting reserve requirements, PJM secured permission from the Commission to extend the pro forma interconnection study timeline to 540 days. This represents more than three times the 150-day cluster study timeline required under Orders No. 2023 and 2023-A.

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[5] We are assuming a 4-hour lithium-ion battery.

[6] PJM's proposed performance rating methodology is derived almost entirely from Winter Storm Elliott, an outlier event during which most resources exhibited low performance. Overreliance on extreme weather events underestimates capacity accreditation percentages during peak conditions.

[7] https://surplusinterconnection.s3.us-east-1.amazonaws.com/PJM.pdf; PJM Surplus Interconnection Dashboard

[8] *Ibid.*, 29. The paper posits that pairing 23 GW of 6-hour storage with existing renewables could enable 51 GW of additional renewable capacity with .62 ELCC.

Finally, Organization 9 requests PJM clarify whether it has the authority to determine which loads must be involuntarily assigned to the NCBL option, as well as the criteria it would apply in making such determinations. Even if this authority exists, it would represent a departure from PJM's role as a facilitator of reliable power delivery and would instead give it the ability to determine which loads should receive preferential or restricted access to the grid. Moreover, by reclassifying demand and not addressing PJM's inability to clear the interconnection backlog, the NCBL option risks creating the appearance of reliability without delivering a durable long-term solution.

### 2. Priority Interconnection for Bring Your Own Generation (BYOG)

Organization 9 would support the BYOG model only if it does not impose additional costs or delays on other resources in the queue. To safeguard fairness, PJM should enforce the same stringent readiness requirements approved in its Order 2023 compliance and business practice manuals, including higher readiness deposits and demonstrated site control over the project site, gen-tie, and substation. In keeping with the principle of Open Access, all resources in the queue must be treated fairly and in a non-discriminatory manner, regardless of resource type or commercial arrangements. PJM departed from this principle by seeking an exemption under its Reliability Resource Initiative (RRI), which it emphasized would be a one-time solution. We expect PJM to honor that commitment.

It is unclear how projects under the BYOG model, where the associated generating facility interconnects at a different point on the system, could rely on existing transmission capacity without effectively jumping ahead of projects already in the queue. PJM should clarify whether interconnection service applications, unless limited to energy-only requests or behind-the-meter generation, would avoid disadvantaging other resources awaiting study. PJM should also explain how energy-only requests would differ in practice from the NCBL option, since in both cases data centers would lack guaranteed access to energy during peak times. In addition, PJM should specify whether BYOG participants may operate on an energy-only basis with interim deliverability while pursuing Capacity Interconnection Rights through the traditional interconnection process. If so, PJM should establish whether the generator's curtailment obligations will mirror those of the paired data center. The operational provisions of such an arrangement should be clearly defined to ensure reliability and prevent unintended market distortions.

PJM should also define the geographic restrictions that will apply to the BYOG model to ensure reliability and fairness. For example, will eligibility be limited to generation located at the same substation as the data center, or could it extend to facilities within a limited radius (e.g., one to two substations away)? Establishing clear and reasonable guidelines on this point will prevent the BYOG model from creating opportunities for certain generation facilities to bypass the traditional queue.

Finally, data centers that elect to co-locate generation at the same point of interconnection should bear the full interconnection costs and transmission charges required to access the grid during the planned or forced outages of their generation facilities. Shifting those costs onto other load is inconsistent with the principle of just and reasonable rates.

### 3. New Demand Response Products for Data Centers

This proposal is workable insofar as it creates economic incentives for data centers to contribute "supply" through demand response, providing a natural market-based solution rather than relying on the artificial reclassification of load under the NCBL option. However, given that data centers have limited operational flexibility, it is unclear what price level would be sufficient to incentivize meaningful demand response.

Moreover, many data centers might rely on backup diesel generators to provide demand response. However, these generators are typically subject to strict state air quality and noise pollution restrictions, rendering participation in demand response infeasible, even when economically attractive.

Thus, while creating additional demand response products may offer some marginal benefits, they cannot substitute for the systemic fix PJM must prioritize, which is accelerating the interconnection of resources already waiting in the queue.

**Conclusion**

In sum, PJM's proposed measures—NCBL, BYOG, and new DR products—are stopgaps. While they may provide incremental relief, they risk distorting market signals and undermining Open Access if used as substitutes for systemic reform. The durable and scalable solution is to clear PJM's interconnection backlog consistent with Order No. 2023. Organization 9 therefore urges PJM to prioritize accelerating the interconnection study timeline to ensure data center load growth is met reliably, affordably, and in line with competitive market principles.

**Organization 10**

Staff appreciates the consideration that PJM Staff put into its CIFP Conceptual Proposal. Large load additions will stress grid reliability and consumer costs, and it is our collective responsibility to meet this regional challenge. Staff provides the following feedback on the Conceptual Proposal.

*Ratepayer concerns need to be considered*

The Conceptual Proposal is aimed at safeguarding reliability in the face of rapidly connecting large loads. This is a very important issue, and Staff supports that objective. However, Staff is concerned that ratepayer concerns are not being given sufficient consideration. It is not clear whether PJM considers ratepayer interests outside the scope of the CIFP. The concerns must be in scope, and ratepayer interests can be protected in the kind of framework put forward by the Conceptual Proposal.

Ratepayer interests[9] and reliability are both stressed by large load additions. Reliability is in jeopardy because load additions will occur faster than new generation can be built. Similarly, auction prices will remain high because market signals will be unable to deliver new generation fast enough to provide any sort of downward pressure in the market. In short, ratepayers should not be asked to bear reliability and cost risks imposed by data centers so long as the market cannot respond timely.

Many stakeholders, such as the IMM, have been supporting a full bring your own generation requirement for large loads. While Staff finds that approach appealing for many reasons, there are also more measured approaches worth advancing.

For instance, there is a simple solution that would only require modest changes to the Conceptual Proposal. Currently, the Conceptual Proposal removes load from the VRR Curve by assigning sufficient NCBL necessary to reduce the Reliability Requirement to match the offered supply. To protect ratepayers, sufficient NCBL can be removed from load to move down the slope of the demand curve – for instance, to where the supply curve can intersect with a Point B[10] on an adjusted VRR Curve.[11]

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[9] In the 2025/2026 BRA Auction, the IMM calculates that $9.3 of the $14.7 billion auction results were attributable to data centers. As data center load growth continues – PJM projects 30 out of 32 GW of load growth by 2030 will be data center load growth – the auction price results will continue to be driven largely by these large load additions.

[10] In PJM's most recent Quadrennial Review proposal, Point B serves as the halfway point between the price ceiling and a price of 0. Setting the market to clear at Point B will save ratepayers roughly half the potential costs of the market but provide enough market signal to, at minimum, maintain existing generation levels.

[11] At the very least, the Conceptual Proposal should modify its approach allowing supply to be "made whole to their offer" when assigning NCLB to adjust the Reliability Requirement and supply offered.

In this way, the market and ratepayers will not be asked to bear the full costs of data center load growth. The Conceptual Proposal is, at least partially, aimed at providing new large loads incentives to manage supply risk. A clear focus on ratepayer protections will also enhance those incentives by sending large loads a clear signal that large loads will be primarily responsible for securing their power supply, not ratepayers.

Large loads, not ratepayers, are best positioned to determine if supply certainty for their facilities is worth additional investment in new generation. An accelerated interconnection process for new generation tied to large load can help unlock those investment decisions,[12] and Staff supports that approach. PJM Staff also suggests reforms can be made to its demand response program to create specific products for large loads, such as a data ELCC class and load aggregation rules.[13] Staff strongly supports these demand response changes and hopes that they can provide data centers strong market incentives toward market participation.

*NCBL eligibility threshold needs to be larger*

The Conceptual Proposal sets the size threshold for NCLB at 50 MW. Staff recommends that the threshold be lowered or revisited completely. While many new large loads will be larger than 50 MW, Staff has not seen enough evidence to suggest 50 MW is an appropriate threshold to capture a significant majority of the new large load additions. The data center industry is still developing, and excluding lower-sized facilities from NCBL designation may inappropriately jeopardize reliability and consumers. Until more industry data points are developed, a more conservative approach is appropriate and may also lower the risk of large loads gaming the criteria by splitting into multiple smaller facilities.

*NCLB eligibility needs clarity*

The Conceptual Proposal explains that it is aimed at capturing loads "not captured in the model."[14] This process needs to be better explained and explored to stakeholders. The process is not clear, especially to stakeholders that have not closely monitored the Load Analysis Subcommittee. Staff is also concerned that some large load additions will be excluded from NCBL treatment because they are captured "in the model." The process may create a discriminatory system of NCBL eligibility, and such an outcome would be unacceptable.

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Ratepayers should not be required to make supply whole when that supply would not clear at the new price on the VRR.

[12] August 18 CIFP Presentation at Slide 24.

[13] Id. at Slide 26.

[14] Id. at Slide 12.

Additionally, are active large loads eligible for NCBL treatment? While it may be prudent to exempt large loads that are in service at the time of CIFP's resolution, large loads should not be removed from NCBL treatment once they reach in service. The Conceptual Proposal later suggests "in-service LLA" can be eligible,[15] but Staff would like to ensure it fully understands the process for identifying and discontinuing NCBL eligibility.

*The proposed treatment of bilateral contracts with existing generation needs more thought*

During the presentation on Monday, PJM made clear that the proposal would not restrict large load additions from entering bilateral contracts with existing generation for supply. PJM also recognizes that removing existing capacity from the market will not protect reliability or consumers. Therefore, PJM said that a bilateral contract with an existing generator would not exempt large loads from being classified as an NCBL.

Staff is concerned the above approach adds confusion and uncertainty for stakeholders. Staff is concerned that these bilateral contracts may change participant and stakeholder behaviors in unexpected ways. There is a cleaner approach. PJM should prevent existing generation from entering supply contracts with new large loads (within or outside PJM) unless the signing parties, financially or otherwise, provide the PJM system with an equivalent amount of accredited capacity to replace the contracted supply.

*LSEs have too much responsibility; a large-load interconnection queue should be explored*

The Conceptual Proposal asks the LSEs to bear substantial responsibility in the process. First, an LSE has to effectively identify eligible NCBLs through load forecasting adjustments. Second, an LSE will be responsible for allocating its "pro-rata" share of load reductions to the NCBLs in its service territory. The Conceptual Proposal wants to leave the details to the LSEs and states, but that will create uncertainty and may distort otherwise efficient solutions.

Staff is concerned that the proposal may create perverse incentives against LSE load forecasting accuracy and may create an opportunity for favoritism when the LSEs assign NCBL load reductions. A more streamlined approach, such as a large-load interconnection queue merged with the NCBL triggers,[16] can avoid these issues and clearly define rights for parties as early as possible. Any approach, whether that is a large load queue or not, must be aimed at clearly identifying the large loads that will be subject to curtailment and in what order. LSEs, large loads, PJM, and states must have clearly defined rights when confronting reliability and consumer impacts for large load additions.

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[15] Id. at Slide 14.
[16] For example, a queue can be implemented that would subject large loads to NCBL treatment on a last in, first out basis to incentivize queue submissions.

**Organization 11**

These comments are in response to the Pre-CIFP Workshop related to Large Load Additions PJM held on August 18, 2025, and requests for written feedback. This preliminary feedback is offered in the spirit of improving the CIFP process and any potential proposal prior to filing. It should not be construed to limit Organization 11's rights under the PJM governing documents or manuals, including full participation in the stakeholder process under Manual 34, or its rights under the Federal Power Act to intervene and potentially protest any FERC filing impacting it.

**Question 1: What issues should be included or out of scope for the CIFP-LLA Issue Charge?**

In scope:

- Education on when the shortage is realistically anticipated – an updated "4R" report.
- Modifications to generation queues to prioritize projects that enhance resource adequacy. This may include projects tied to new large loads.
- Evaluation of Non-Capacity Backed Load product.
- Modifications to demand response rules to encourage data centers to participate.
- Implementation rules with clear timelines and permanent application.
- Engagement with states to define roles, evaluate curtailment process, and alignment with EDC statutory requirements.
- Implications for transmission and generation planning.
- Impacts to other customer classes, including allocation of costs, and effects on capacity market and new generation additions.

Out of scope:

- Rules impacting retail or utility obligation to serve. Specifically, a large load interconnection queue (for the load itself rather than for accompanying generation) should not be considered.

**Question 2: What comments would you like to provide on the PJM conceptual proposal? Reference the PJM conceptual proposal presentation from the August 18 Pre-CIFP Workshop.**

Recognizing that the three "pillars" proposed in the conceptual proposal presentation are similar to Options 6-8 in PJM's response[17] to the recent show cause proceeding initiated by FERC on co-located load issues, Organization 11 has already provided some brief initial thoughts on these concepts in its Answer[18] to the response.

Regarding the concept of "Non-Capacity Backed Load" service (NCBL), Organization 11 has several additional comments, concerns and suggestions:

- Organization 11 encourages PJM to work collaboratively with TO and EDCs to review typical service agreements for large load customers to ensure that NCBL service does not violate those agreements.
- More information on the timing and details of the responsibilities of TOs and EDCs in implementing NCBL service (as summarized on Slide 18 of PJM's presentation) would be helpful.
- It is unclear whether large load customers would be willing to accept NCBL service voluntarily; the theoretical financial benefits may not outweigh the financial benefits of reliable service. It would be helpful for PJM to provide analysis, based on recent capacity auction results, quantifying the potential cost savings to representative large load customers during stakeholder discussions.
- Unless NCBL service is made a permanent tool in addressing resource adequacy, Organization 11 is concerned that it may temporarily mask the current resource adequacy crisis or delay the onset of another, pushing off needed generation investments. Implementing NCBL service does not negate the need for the region to continue to work together on additional measures to significantly increase the amount of available capacity resources on the system.
- Specifically, allowing large load to connect without paying for capacity risks (1) inequity with existing customers required to pay capacity costs; and (2) exacerbating the resource adequacy issue by lowering capacity revenues and therefore dampening the market signal to build more.

Regarding the concept of accelerated interconnection pathways for generation projects contracted with large loads, Organization 11 has been and continues to be generally supportive of this concept. However, large load customers who exercise this model are, at best, not exacerbating regional resource adequacy concerns. As such, interconnection process reforms to *improve* resource adequacy should take precedence and not be neglected.

[17] *PJM Interconnection, L.L.C.*, Answer of PJM Interconnection, L.L.C., Docket Nos. EL25-49-000 et al. (Mar. 24, 2025).
[18] *Reference with company attribution removed*.

Regarding the concept of Demand Response enhancements, we believe that demand response may be among the suite of solutions necessary to address the growing supply-demand gap. Stakeholders may benefit from additional education on how large load customers can participate in existing Demand Response programs, as well as more details on PJM's conceptual proposal.

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**Organization 12**

Organization 12 appreciates the opportunity to submit comments to PJM regarding the CIFP on large load additions. Organization 12 appreciates that resource adequacy is, and may continue to, present reliability challenges largely driven by the rapidly growing demand forecast. However, care needs to be taken in addressing this challenge to ensure that the integrity of the PJM markets is maintained. Organization 12 largely agrees with the three objectives of the CIFP, but we have some concerns about the proposed solutions as outlined below.

We are greatly concerned about the feasibility of the Non-Capacity-Backed Load (NCBL) proposal. This proposal may be in contravention of the Federal Power Act as it implies that PJM can 'decline' to serve load. The gist of NCBL seems to be that PJM will determine how much large load will not be served, then turn it back on the EDCs/LSEs to manage. This would also involve state level regulations and retail loads, something FERC has no jurisdiction over. While a voluntary system could potentially be workable, any effort to make this mandatory seems challenging and may not be in line with current federal and state regulations. Additionally, it is critical to maintain transparency and predictability of the capacity market, particularly to achieve the goal of bringing new resources online. Organization 12 is concerned that reliability requirements uncertainty due to NCBL could undermine investment signals to build new capacity resources.

Creating priority interconnection pathways for resources with offtake agreements, a Bring-Your-Own-Generation (BYOG) concept, could be a workable solution with the proper safeguards in place. We urge consideration of the following:

- The existing interconnection process should be respected, and PJM should prioritize working through the current queue and looking for ways to help current GIA holders move through the post-GIA process. Organization 12 is greatly concerned that a new pathway could lead to a queue jumping or permanent RRI construct which would undermine the current queue process.
- Allow the BYOG to be a portfolio of all types of supply resources that the load entity wishes to construct, rather than focusing just on 'dispatchable' generation.
- It may be unduly discriminatory to allow 'new' large load to BYOG while not also allowing any existing large load to do so.
- It could be unclear what large load is 'new' and what is not.
- If this is offered to large load, it could be unduly discriminatory to not offer to any type of load. If PJM wishes to implement a BYOG model, then perhaps it is time to consider moving to a truly residual capacity market construct, where all load is able to construct its own capacity portfolio and then the RPM only procures the additional needed to meet reliability criteria.

Consideration of new demand response products is an excellent proposal. This should be done regardless of the CIFP and the current large load challenge. We heard at the workshop, that the current crop of demand response offerings is not providing the proper incentives for large loads to participate. Organization 12 is a developer community, therefore we will leave specific comments on this topic to the demand response experts.

This CIFP process is going to be difficult and challenging. PJM should not lose sight of other solutions to help with resource adequacy including:

1. **Interconnection Queue**

PJM has made significant progress on working through its queue backlog in the past year. There are still many gigawatts being studied and more waiting to enter next year, that will support the growing loads. PJM should continue to identify process improvements that could speed up study timelines, since getting new resources onto the grid is the number one solution to alleviate resource adequacy concerns. Additionally, PJM should continue to work with developers to facilitate projects getting online and not add complexity or risk to interconnection agreements or reviews that may undermine this objective.

2. **Load Forecast Certainty**

An additional consideration, as voiced at the workshop, is PJM's load forecast uncertainty. Before considering additional requirements such NCBL, PJM should first work with TOs and states to ensure the load forecast is as accurate as possible with respect to the large load additions being proposed. Organization 12 understands that PJM is keen to continue with a 3-year forward BRA, but as been demonstrated in the past, the load forecast is a source of significant error with respect to capacity procurement 3 years out. This will be the case again, as large load additions 3 years out are much more uncertain than 1 year out. PJM should consider a prompt auction construct, along with working to make the load forecast more 'certain' with regard to the large load additions.

3. **Capacity Accreditation**

PJM ELCC methodology is overly focused on a few winter days and could be creating some 'paper' shortages. The focus on a few winter storms and resource performance on those days is a significant issue with the current ELCC. For example, this last June, PJM experienced two of the highest peak days ever for the region yet there were no issues. During the hottest parts of the day, 11 GW of solar was part of the PJM mix, while only 1.7 GW is counted as capacity under the BRA due mainly to the ELCC. Additionally, on the load side, the model overstates the winter load, something not even being considered in the current ELCC stakeholder process.

4. **Storage**

Storage could provide significant support for resource adequacy in PJM, but it is currently a challenging market for storage. PJM could make its markets more attractive to storage by allowing inter-temporal opportunity costs into cost-based bids. Additionally, the current capacity market construct is not conducive to storage due to the current ELCC modeling methodology, and the performance assessments that would penalize storage for non-performance even when the resource performs to its full capability and follows PJM dispatch.

5. **Transmission planning**

The transmission system in the PJM region is seriously constrained. Implementing a wholistic Order 1920 compliant transmission plan as soon as possible will go a long way towards ensuring resource adequacy in the future.

The CIFP process is fraught with uncertainty, both legally and practically. We urge PJM to consider other reforms that would enhance resource adequacy before attempting to implement such a fundamental change as NCBL.

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## Organization 13

Question #1: Scope of the Issue Charge

As a load-serving entity, Organization 13 and its customers would like to have confidence that the necessary generation capacity is available at the time of interconnection. However, Organization 13 and its customers also recognize the reality that the generation may not yet exist at that time to support the growth. With that in mind, Organization 13 appreciates the proactivity of PJM's Board of Managers to initiate this CIFP.

That said, it is imperative that the scope of the work as delineated in its Issue Charge not presuppose any outcome of the stakeholder process. Specifically, it must be expansive enough to ensure that other potential solutions are not excluded from consideration in favor of the preliminary conceptual proposal – which staff are applauded for producing as the process obligates but that should remain properly considered as a starting point. Organization 13 urges PJM to challenge its creativity to implement a solution that achieves the load-side flexibility it's seeking as easily and equitably as possible by trusting its utility-members to observe good utility practices in coordination with their customers to maintain system reliability.

To that end, Organization 13 requests that the scope accommodate the following:

1.) PJM (or a third party) performing an analysis of the flexibility capability it believes large-load additions (LLAs) can reasonably provide, as well as publishing those findings in a guidance document that EDCs and LSEs can use to engage in curtailment negotiations with LLAs in PJM's stead, if necessary. A common understanding of the baseline conditions will be critical in determining how each discrete negotiation relates to the overall, RTO-level situation and in prioritizing as necessary. A public document will create a definitive starting point that will help alleviate or avoid misunderstandings, miscommunication and/or frustration with situational discrepancies. It should also minimize disputes and expedite negotiations by increasing efficiency and trust amongst the participants. Cumulatively, it will then also substantially increase confidence in the results amongst all stakeholders and observers.

2.) Development of the capability to allocate costs caused by LLAs directly to them. Without this critical component, other rate classes are likely to subsidize service to those additions. Given the current cultural climate and indications of the what the overarching public perspective of PJM is, all stakeholders would be well-served by PJM unambiguously communicating strict adherence to this fundamental principle. An ancillary benefit will be establishing a clear nexus between demonstration of the need and funding for the work that may expedite its execution and aid in some large load's stated primary goal, which is speed to market.

3.) Clarifying the parameters of a "critical load" designation and how it can be rescinded, with the overall intent of eliminating any ambiguity or confusion over how, when and to what extent large loads can contribute to PJM's goals of stabilizing resource adequacy. For example, PJM's conceptual proposal indicates such loads are ineligible to satisfy the NCBL obligations it contemplates, even if those loads opt for the "demand response" or "bring your own generation" options also detailed in the proposal, which seems counterproductive to PJM's interests. If the problem is, indeed, as big and imminent as the undertaking of this stakeholder process suggests, why wouldn't we want to accept assistance wherever we can get it? During the Aug. 18 Pre-CIFP meeting, PJM staff indicated their understanding of how "critical load" designations are determined is substantially different from Organization 13's, which suggests that clarity on a mutual understanding and – potentially – process revisions are needed to ensure all loads are able to contribute to the solution at least as much as they'd like to.

4.) Further, identifying and evaluating the tradeoffs of varying options for implemented process, such as its permanence and eligibility. For example, PJM's preliminary proposal contemplates its NCBL process activating only under unpredictable circumstances, which may limit its attractiveness to potential volunteers. Alternatively, implementing a permanent offering may provide the certainty necessary for maximizing voluntary fulfillment of any curtailment requirements. Additionally, making the eligibility pool as wide as possible – to include both planned and existing loads, for example – will, by definition, ensure the process invites as much voluntary participation as exists.

5.) Understanding and accounting for the physical realities of all of the electricity-delivery infrastructure, inclusive of the transmission system and all of its underlying distribution systems, required to effectuate any proposal concepts that rely on operator-side control. For example, it's unlikely that any system is designed conveniently enough that any reduction action will precisely align the amount of load subsequently curtailed with the amount modeling indicates is required – "too much" or "too little" are far-likelier outcomes. Given that a result of "too little" doesn't achieve resource adequacy and defeats the purpose of cutting any load in the first place, the result will usually be "too much" and instigate disputes about equity as other load on the system is spared from being curtailed as much as it otherwise would be obligated to. Preemptively addressing this reality with mutually-accepted procedures will help alleviate messiness after the fact that history has shown erodes credibility and confidence in the market.

6.) Consideration of the locational implications that will arise if the solution only focuses on maintaining resource adequacy netted across PJM's footprint. If this is the case, other factors may still cause some regions to have a shortage of generation, even if the market appears to have enough thanks to excesses in other regions. This process must consider the market impacts of such a scenario and ensure the costs allocated to those regions are aligned and commensurate with the obligations assigned to them. It seems unfair, for example, if a zone is assessed a higher capacity price to pay to import its capacity obligation, but then also receives inequitable supply curtailments.

7.) Anticipate and address the likelihood of discrepancies between a load-serving entity's forecast and the load that actually materializes for the delivery year. This can occur when an expected load is delayed or a necessary transmission-infrastructure upgrade isn't completed on the expected schedule. In a year where involuntary capacity curtailments will be assigned, it will be critical that such load that never materializes will be eligible to offset any curtailment assignments, so PJM will need to ensure there is a clearly-defined process to account for it.

8.) Clearly define a process for allocating any mandatory curtailment assignments, both across PJM's zones and intra-zonally amongst the LSEs within them. Since not all LSEs within individual zones are affiliated, it will be critical that there is a formalized, transparent, equitable and nondiscriminatory process that allows for dispute resolution to ensure all obligations are allocated appropriately.

Finally, there are two concepts that should be ruled out of scope:

1.) any adjustment to retail or nonretail behind-the-meter rules. In the spirit of making eligibility as wide as possible, retail and nonretail BTMG increase the potential ability to willingly participate and nothing should be done to reduce or impair that potential.

2.) any options predicated on the belief that generation exiting the market to contract directly with an LLA benefits PJM or somehow improves the current situation. PJM must be clear that this effort was established to address the immediate issues PJM has identified and is not an opportunity to exacerbate any existing circumstances in the hope of potential improvement sometime in the future.

Question #2: Conceptual proposal

Organization 13 appreciates many of the aspects of the preliminary proposal from PJM staff but believes an approach that focuses on demand-side management of compliance with any curtailment obligations is preferrable. In the hope of facilitating expansion of the Board's consideration in that direction, Organization 13 offers the following concepts and components of a potential alternative proposal:

**Result should be "DR-like"** – This CIFP should result in a new program that resembles – but is separate from – PJM's other existing Demand Response programs. Overall, DR is an established concept and has been employed successfully for more than half a century, so the program resulting from this process should be straightforward and based on proven principles. There is no justification for over-complicating such a design with unfamiliar and untested concepts that potentially trigger unintended and negative consequences.

**Dynamic requirement** – As part of the program design, the end-use customers with obligations should be able to provide incremental reductions that can be increased as system conditions warrant in coordination with their distribution utility. Similar to other DR programs, this should not be an "all or nothing" determination for end-use customers.

**A component of PJM's emergency procedures** – The program should be thought of as demand-side management that would be part of PJM's emergency-procedure hierarchy rather than a competitive, market-based product like DR. Careful thought will be required to determine where the program is situated in the emergency-procedure hierarchy to ensure that other existing programs, including DR, are not over-utilized or under-utilized. Additionally, this program should be considered separate and distinct from a PJM Load Dump action and PJM must be deliberate in making sure the two concepts aren't conflated with each other.

**Escalating enforcement** – Initial enrollment in the program should be voluntary, but it may need to be mandatory if enrollment doesn't fulfill the requirement established by PJM.

**Reward- & penalty-driven compliance** – There should be incentives for end-use customers accepting curtailment obligations, as well as penalties for not complying when instructed.

**Customers maintain direct control of their equipment, not utilities** – Customers know their facilities and would be able to employ techniques to reduce load in the needed increments to comply with obligations while minimizing disruption to their operations. The utility should provide information to end-use customers about the needed reductions but should not be directly controlling customer load or opening breakers.

**Utilities would open breakers only as a last resort** – Utilities should only need to open breakers or disconnect customers as a last resort where customers are not meeting their requirements. It should be kept in mind that there are often multiple customers on the same circuit-breaker, so taking such action is likely to harm more than just the intended customer. PJM's conceptual proposal appears to contemplate that utilities should immediately jump to the "all or nothing" of opening breakers, which would not be an acceptable policy for utilities and/or their customers.

**Isolated and separate from market-related activity** – Any demand-reduction capability pledged to an obligation resulting from this process would be ineligible for utilization for any other purpose except fulfilling that obligation. Allowing such discretion and flexibility would likely result in the capability not being available for any event this effort is intended to address. As such, the customer should always have available on-site capacity reductions to meet reduction obligations contemplated by this CIFP.

**Customer involvement** – It should be expected and established that end-use customers would have staff proactively monitoring PJM and other sites for potential emergency procedures and any event this effort is intended to address so that the operations of their facilities are prepared in advance. This may include a continuous signal of some type between PJM, the utility and the customer that lets customers know of such an event and the level of reductions needed. Utilities would also have the ability to utilize preemptive and proactive coordination, such as direct engagement with customers based on day-ahead forecasts and market results, to ensure the organized and predictable achievement of any curtailment requirements.

**Built on established processes** – Many of these concepts have been explored and/or implemented in Texas in response to Winter Storm Uri in February 2021, so PJM should look there for inspiration. Additionally, there should be common designs and standards among utilities such that each utility should not have to create a program from scratch.

## Conclusion

Overall, Organization 13 proposes a concept in which distribution utilities fulfill the curtailment requirements allocated to them by coordinating with their end-use customers to establish the requisite amount of load-reduction obligations. The end-use customers would be required to reserve the load associated with those obligations in isolation from any other demand adjustments it engages in such that those obligations are always available to respond to any event the result of this CIFP is intended to mitigate.

**Section 2 below shows stakeholder comments posted with company attribution.**

August 27, 2025

Timothy Horger
PJM Interconnection, LLC
2750 Monroe Blvd
Audubon, PA 19403

Dear Mr. Horger,

Absent immediate changes to PJM's rules for next spring's capacity auction, our constituents face the prospect of an auction that more than doubles its already record-breaking clearing prices. The combination of the expiration of current price collars, rising load growth, and an increased cap dictated by PJM's Quadrennial Review process makes a capacity auction clearing at a total cost of $40 billion or more a real possibility. Given continued challenges with PJM's interconnection queue and global supply chain issues, even this staggeringly high price—which will ultimately be passed on to consumers in each of our states—is unlikely to timely incentivize new generation, and cannot assure the reliability of our grid. We therefore urge PJM and the Board of Managers (Board) to use this Critical Issue Fast Path (CIFP) process to take meaningful steps to sustainably integrate large load additions (LLAs), improve the accuracy of load forecasting, move even more aggressively to improve the interconnection queue, and strengthen regional transmission planning process to facilitate new generation. Without urgent action on these items, we have grave concerns about next June's auction moving forward without price protections for our region.

Given that concern, our states appreciate that PJM and the Board of Managers have undertaken a CIFP process. Immediate action via the CIFP process is an appropriate step to implement uniform rules to address the increasing prevalence of LLAs in our region. We encourage PJM to pursue meaningful reforms now, because while each of our states are undertaking efforts to address the growing affordability and reliability crises, many of the tools are beyond the control of any single state. Without impactful changes in the near-term, the need will grow for direct intervention to prevent out-of-control price hikes. Therefore, the Board's action to initiate the CIFP process is timely and important, and we appreciate the opportunity to provide comment.

1. **Expressly Time-Limited Non-Capacity-Backed Load (NCBL)**

We appreciate the creativity of PJM's NCBL framework. As conceived, it may help prevent outages at moments of extreme strain on the grid. However, we are concerned that as currently envisioned it is too unpredictable—applying only to a subset of load, and only some of the time—and too likely to produce unintended consequences to be able to

provide a permanent solution as a broadly applicable, universal rule that developers, regulators, and consumers can depend upon.

However, if the Board does move forward with the NCBL approach, we agree with the thoughtful suggestions advanced by stakeholders proposing that NCBL serve as a temporary backstop mechanism, applicable only to the two auctions scheduled for calendar year 2026 (*i.e.*, the 2028/29 and 2029/30 delivery years), and that mandatory designation of large loads as NCBL should only occur after providing viable pathways for large load projects to demonstrate their contributions to our shared grid. Such compliance could be demonstrated through signed and committed agreements to bring sufficient generation to match expected load over time, or to voluntarily engage in sufficient demand response, even if not for unlimited periods, to meet urgent grid needs. An explicitly temporary and more broadly applicable NCBL methodology that is mandatory for only the next two BRA performance periods (not including the 2027/28 BRA, although we suggest exploring ways to extend these rules to new loads entering that auction to prevent unequal rules across the forthcoming auctions) could provide a partial and short-term solution. However, we feel strongly that this temporary solution must be accompanied by additional measures that address more fundamental issues and will not risk artificially perpetuating extremely high capacity prices through a potentially flawed trigger mechanism.

Alongside these modifications to the NCBL concept itself, we believe it is essential that the CIFP process include other necessary modifications and that PJM continue to improve transmission planning, which will begin to address the underlying issues that NCBL aims to improve. We describe each below: first, tackling the acute need for more accurate load forecasting, which stakeholders and states across our region are eager to see realized as soon as possible. Second, improvements to the interconnection process that both allow quicker access to the grid for energy only resources and provide incentives for new generation resources that are able to pair with new large loads to quickly enter service alongside accompanying load. Third, PJM must improve its regional transmission planning to allow more generation to connect in the future.

2. **Improved Load Forecasting**

Particularly in a moment of supply-demand imbalance, accurate load forecasting is critical to ensuring we are appropriately planning for the future needs of the grid, but not over-building at extraordinary cost to consumers. At present, PJM's forecasting methodology relies on information reported by utilities, each using differing criteria to determine when a proposed LLA in their service territory is certain enough to move forward to be included in the load forecast sent to PJM. We recognize that PJM has proposed changes to improve transparent and standardize this process, and that the PJM's Load Analysis Subcommittee (LAS) is currently working to refine the approach, and we encourage those efforts. We also recognize that utilities across the country have been grappling with these

issues, and implementing retail tariffs specific to large load that include features intended to improve the certainty of forecasts, and we similarly encourage these efforts.

However, given the urgency to finalize a forecasting approach in time for use in next June's auction, if there is any chance that the LAS will not complete its work in time, we urge PJM to utilize this CIFP process to implement changes that more accurately report forecasted load from proposed LLAs. While individual utilities should continue to develop tariffs that protect consumers through contract length, minimum demand requirements, and cost assignment provisions, PJM should establish minimum standards—such as site control and minimum investment or deposit requirements—for a project to be included in PJM's own load forecast. Utilities can continue to require other elements of the methodology they think best for their own service territory, but the load forecasts they report should be filtered through PJM's requirements to arrive at a final region-wide forecast for the purposes of building new transmission and procuring needed capacity.

Such an effort, in conjunction with state commissions that are actively working on this subject, is widely recognized as a necessary first step. PJM simply cannot conduct the June auction without establishing more accurate rules for load forecasting. If PJM does not shortly take such steps to ensure more uniformity and accuracy, it may instead become necessary to reconsider how costs incurred based on potentially inaccurate load forecasts are apportioned in order to ensure the region as a whole does not pay for projected needs that do not materialize. Such reordering of incentives is an alternative pathway to right-sizing PJM's approach to load.

3. **Needed Interconnection Reforms**

We remain extremely concerned about an auction producing high prices that do not result in new entry because of continued delays in the interconnection queue, and so welcome PJM's focus on offering provisional interconnection for resources that may be able to enter service quickly. This is a much-needed aspect of the CIFP that should be refined and expanded upon in the coming months and included in an eventual FERC filing. Alongside a more robust provisional interconnection service option, we strongly encourage PJM to provide new pathways both for more rapid energy-only interconnection and for accompanying generation to enter service alongside its sponsoring load. When considering adopting any changes, PJM must evaluate impacts to ratepayers as well.

PJM has warned for several years of the impending resource adequacy shortfall that the region is beginning to experience. In order to meet this challenge, we must open all feasible pathways to bring additional electrons to our grid. This includes adopting models that are succeeding elsewhere in the country. For example, a provisional service arrangement that more effectively implements the connect-and-manage approach being successfully employed in ERCOT could be an effective tool. We have heard from many developers who are eager to join PJM's energy markets but do not consider the current ERIS offering to be a

realistic opportunity to join the grid. The requirements for ERIS are too laborious, and too similar to NRIS, to justify developers pursuing ERIS today. PJM should prioritize a streamlined ERIS process within the CIFP that offers a practical fast-track to enter the energy markets in our region, with a realistic pathway to later becoming qualified as a capacity resource if so desired.

Further, PJM should expand its interconnection framework through this CIFP, offering more of an incentive for large load to bring its own generation, by allowing accompanying supply to be directly paired with load and rapidly introduced into the system. If PJM cannot offer that certainty—that load and supply will be studied and approved on the same timeline—it cannot realistically expect high value projects to risk billions of dollars on new generation that may not be approved in time to meet the demand of their own load. This will require coordination with state regulators, utilities, and project developers to develop meaningful opportunities for load to join with paired generation through a cohesive entry process, but it is an essential offering alongside any effort, such as NCBL, that seeks to encourage large loads to procure their own new sources of power. Evaluating and monitoring impacts on other ratepayers, especially residential ratepayers, will be critical to avoid unintended consequences, such as increase costs to consumers, that a large load interconnection framework is meant to avoid.

Therefore, as PJM undertakes these interconnection reforms, we encourage an approach that rapidly allows generation resources that can provide sustained and dispatchable reliability to support accompanying LLA projects. By doing so, PJM can reduce the risk of resource adequacy challenges, control costs for consumers, and bolster the economic development of our region.

Finally, in addition to these new reforms, PJM should continue to implement already-planned interconnection reforms. This includes working to speedily comply with Order 2023. At a time when new generation is sorely needed, each delay to reforms already in the works makes it harder to meet this moment of rapid load growth.

4. **Investing in Regional Transmission**

We appreciate PJM's efforts to meet the requirements of FERC Order 1920 for long term transmission planning. PJM needs to utilize holistic, forward-looking transmission planning to ensure that generation can connect in a timely manner and cost effectively to

meet the demand of new large load additions. Because large load additions can quickly eliminate any surplus generation on the system, investing in regional transmission now will mean more generation can connect while also reducing curtailment and congestion on the system, improving reliability, reducing overall costs, and helping ensure that we are not faced with a chronic lack of generation in the future. PJM should prioritize working with the states and OPSI to ensure the right investments in regional transmission are achieved.

We recognize that implementation of these measures may require increased capacity at PJM, and we would welcome efforts by PJM to increase staffing levels as needed to allow for rapid implementation of these proposals and for accelerated work on interconnection studies and transmission planning. Additionally, as PJM undertakes these interconnection reforms, we encourage an approach that rapidly allows generation resources that can provide sustained and dispatchable reliability to support accompanying LLA projects. By doing so, PJM can reduce the risk of resource adequacy challenges, control costs for consumers, and bolster the economic development of our region.

Thank you for your consideration of these elements within the CIFP process and we look forward to working collaboratively with you and stakeholders across the region on these collective problems in the months ahead.

Sincerely,

Governor Josh Shapiro
Commonwealth of Pennsylvania

Governor Phil Murphy
State of New Jersey

Governor JB Pritzker
State of Illinois

Governor Wes Moore
State of Maryland

DIGITAL POWER NETWORK

Re: Comments on PJM Critical Issues Fast Path (CIFP) Conceptual Proposal

**Submitted to:** Michele Greening & Matt Connolly
**Date:** August 25, 2025
**From:** Digital Power Network (DPN)

The Digital Power Network (DPN) is the largest coalition of Bitcoin miners and digital infrastructure providers, with much of our membership located within the PJM Interconnection. DPN supports PJM's efforts to reform its interconnection process for large loads, and we respectfully submit the following comments to ensure equity, reliability, and innovation. We have organized these comments in response to PJM's proposal for the Critical Issues Fast Path (CIFP).

**Overview**

The rapid growth of large load resources- data centers, Bitcoin mining facilities, and AI compute hubs- marks a significant shift in the PJM footprint. However, these resources are uniquely positioned to provide fast, flexible demand-side services that enhance grid resilience and reliability. Unlike traditional industrial loads, digital infrastructure facilities are often capable of ramping down consumption on short notice, participating in demand response markets, and integrating behind-the-meter (BTM) generation. PJM's CIFP process must recognize this dual role: while these facilities increase demand, they also strengthen the grid when properly integrated.

The U.S. economy increasingly depends on digital infrastructure. AI, cloud computing, and Bitcoin are foundational to national competitiveness, cybersecurity, and economic growth. The policies and processes adopted by PJM will influence where and how these industries expand. It is therefore critical that PJM's reforms balance the imperative for reliability with the equally important need to attract and retain innovative industries in the PJM footprint. In doing so, PJM can set a national standard for how grid operators integrate emerging large loads.

**Resource Adequacy and Non-Capacity Backstop Load (NCBL) Concerns**

Resource adequacy was identified in the Board's letter as the central issue for the CIFP process. DPN strongly agrees with PJM that adequacy cannot be compromised. However, we are deeply concerned with the introduction of a Non-Capacity Backstop Load (NCBL) framework. As outlined, NCBL raises several risks and uncertainties.

First, bypassing capacity market obligations risks undermining PJM's ability to plan for and secure adequate resources. The Reliability Pricing Model (RPM) is the cornerstone of PJM's adequacy framework. Allowing large loads to avoid participation in capacity markets removes critical transparency, distorts cost allocation, and reduces the incentive for new capacity development. This could unintentionally weaken long-term adequacy. It also raises the concern that these forgone capacity payments could be shifted onto other large load customers with capacity-backed obligations.

Second, the NCBL concept creates uncertainty for investors. Because PJM has discretion to determine whether a project qualifies as "critical," market participants are left with ambiguous standards and regulatory risk. This proposal also gives PJM the discretion to mark currently in service loads that have paid capacity costs as NCBL if needed. For developers considering billion-dollar infrastructure commitments, unclear obligations can drive investment to competing regions. This is particularly concerning given that states within PJM's footprint actively compete with other U.S. regions for data center and digital infrastructure investment.

Third, NCBL could discourage innovation. Many of the projects that fall under PJM's CIFP review- data centers, mining facilities, AI computing- bring economic development, workforce growth, and tax revenue. Subjecting them to uncompensated obligations without a clear framework could create barriers to entry and tilt the playing field away from flexible, high-value loads.

**Recommendation:** DPN urges PJM to ensure that NCBL, if pursued, remains voluntary, transitional, and paired with compensation or market-based alternatives. Additionally, in the order of operations for curtailment, PJM must curtail voluntary participants before involuntary participants. Flexible digital loads should be incentivized to participate in resource adequacy initiatives rather than be excluded from them. A framework that encourages voluntary participation through programs such as demand response (DR) while rewarding flexibility would strengthen adequacy and preserve reliability.

DIGITAL POWER NETWORK

**Demand Response (DR) and Behind-the-Meter (BTM) Resources**

The Board letter explicitly recognizes that load resources can support adequacy and reliability through demand response and BTM generation. Digital infrastructure represents the most promising frontier in this area. Bitcoin mining facilities, for example, have already demonstrated the ability to curtail megawatts of load within minutes, participating in grid-balancing actions during scarcity events. Similarly, hyperscale data centers and AI clusters can shift workloads geographically or temporally to alleviate grid stress.

Despite this promise, PJM's DR programs remain outdated and face declining participation. Current barriers include failure to recognize BTM resources colocated with load during and inaccurate modeling of load shedding events.[1] As a result, some of the most responsive and controllable loads in PJM are unable to participate meaningfully in DR markets. This is a missed opportunity and a signal for further collaboration between PJM and its stakeholders.

BTM also faces state and local barriers to deployment. By incentivizing data center colocation with already permitted, retiring generation through funding upgrades and grants, PJM can support resource adequacy while energizing digital infrastructure with reduced reliance on the grid.

Examples from industry highlight what is possible. Google has pioneered geo-shifted DR, relocating compute workloads to regions with surplus renewable energy[2]. Bitcoin miners routinely curtail load during high demand hours, freeing up capacity for other users[3]. These models prove that large digital loads can be managed dynamically to improve reliability.

**Recommendation:** Modernized DR and BTM frameworks will eliminate the need for a NCBL program. PJM should modernize DR frameworks to align with the realities of digital infrastructure. This includes creating new classes for flexible loads, allowing flexible participation, enabling aggregation across multiple facilities, and sufficiently incentivizing

[1] https://www.esig.energy/wp-content/uploads/2025/02/ESIG-Demand-Response-Wholesale-Markets-report-2025.pdf
[2] https://www.datacenterknowledge.com/sustainability/how-load-shifting-may-help-improve-data-center-sustainability
[3] https://www.eia.gov/todayinenergy/detail.php?id=61364

DR for both load providers and data centers in a manner consistent with generation resources. By modernizing DR and supporting BTM arrangements, PJM can harness the flexibility of digital infrastructure to enhance reliability while lowering costs for consumers.

**Interconnection Pathways and Queue Enhancements**

The Board letter and Conceptual Proposal both emphasize the need to reform interconnection processes for large load additions. The current interconnection queue is already a bottleneck for generation resources, and large loads face similar challenges. Without reform, interconnection delays will slow investment and exacerbate uncertainty.

DPN recommends that PJM prioritize interconnection reforms that account for the unique attributes of flexible digital loads. For example, projects such as bitcoin mining and cloud computing that demonstrate curtailment capabilities, integrate BTM generation, or provide verifiable DR services should be eligible for accelerated review. Such resources strengthen rather than strain the grid, and their integration should be streamlined accordingly.

Transparency is also essential. Developers need clear, step-by-step guidelines and readiness requirements for interconnection. Predictable timelines and transparent criteria will reduce regulatory risk and allow investors to plan with confidence. Similarly, colocated generation and flexible demand should be evaluated under consistent rules and under one interconnection application. BTM generation or storage paired with data centers should not face duplicative or unclear interconnection pathways.

**Recommendation:** PJM should adopt a "fast lane" process for flexible digital loads that support adequacy and reliability. This would align with the Board's directive to prioritize reliability while also attracting cutting-edge industries to the PJM footprint.

**Coordination and Timing**

The Board letter emphasized coordination among stakeholders as well as fast implementation of the CIFP program. DPN agrees that these efforts are critical to ensure speedy interconnection while maintaining resource adequacy.

**Recommendation:** PJM should maintain a transparent, inclusive process with opportunities for meaningful stakeholder engagement at each stage of implementation. It is imperative to coordinate closely with each load provider and utility. In particular, after emergency load shedding events, PJM should gather detailed data demand response to refine the process going forward.

**Conclusion**

The Digital Power Network appreciates PJM's leadership in addressing the challenges and opportunities posed by large load interconnections. The CIFP process, if implemented carefully, can ensure that new digital infrastructure strengthens the grid rather than straining it. To achieve this outcome, DPN urges PJM to refine the NCBL framework, modernize demand response programs, streamline interconnection pathways, and maintain a transparent, stakeholder-driven process.

Digital infrastructure represents the future of the U.S. economy. By adopting forward-looking reforms, PJM can ensure that its footprint remains the premier destination for innovation while safeguarding reliability and adequacy. Our members stand ready to partner with PJM to implement these solutions in a way that advances reliability, competitiveness, and innovation.

**8/27/25**

**Exelon Comments on the CIFP - Large Load Additions**

PJM Transmission Owners ("TOs")/Electric Distribution Companies ("EDCs"), including Exelon Corporation's ("Exelon") utility affiliates, have a responsibility to serve all customers—large, small, and in between. We are obligated to provide both retail and wholesale electric service safely and reliably. Large load requests are coming at an unprecedented pace, which requires additional grid and generation resources to reliably interconnect them to the system. Exelon appreciates PJM looking for creative solutions to mitigate these issues and allow large retail loads to continue to reliably interconnect to the electric grid despite current headwinds. Exelon also appreciates recognition by the PJM Board of Managers that "jurisdictional boundaries and data center relationships with existing Load Serving Entities and/or Electric Distribution Companies" must be respected as well as the opportunity to comment on PJM's conceptual proposal to introduce a new category of load—so-called "Non-Capacity-Backed Load" ("NCBL") for large loads.[1]

While Exelon supports the consideration of expanding demand response capabilities for large loads, including at the wholesale level, the current proposal is not that, and Exelon respectfully urges PJM to withdraw the current proposal and reconsider it along those lines. Exelon shares PJM's concern for maintaining resource adequacy in the face of growing data center demand, but the NCBL concept as drafted suffers from two fundamental legal flaws, which are further discussed below. The NCBL proposal could avoid these barriers and be improved in function and efficiency by moving towards incorporation of economic participation by resources rather than through a simple opt-in/opt-out approach. Additionally, any program that comes out of this Critical Issue Fast Path ("CIFP") process must be based on the markets PJM administers or the services PJM provides under its tariffs.

A. Legal Flaws

*First*, creating a group of end use customers or class of end use load whose service may be—or, potentially, must be—interruptible under defined circumstances is establishing or revising the rates, terms, and conditions of retail electric services. By attempting to create a special classification of retail service and dictating its terms

[1] Letter from David E. Mills, Chair, PJM Board of Managers (Aug. 8, 2025), https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2025/20250808-pjm-board-letter-re-implementation-of-critical-issue-fast-path-process-for-large-load-additions.pdf.

(including curtailment conditions and exemption from capacity charges), the proposal intrudes on the exclusive jurisdiction of the states to regulate retail electric service. The Federal Power Act ("FPA") draws a bright line between federal authority over wholesale sales and state authority over retail service. PJM's proposal steps over that line.

*Second*, PJM's plan to effectuate NCBL curtailments by invoking a NERC reliability standard misuses those standards beyond their intended scope and exceeds PJM's authority. Nothing in the NERC reliability framework permits an RTO to pre-arrange routine load shedding of a designated customer class as a substitute for resource adequacy.

1. *The NCBL Proposal Would Impermissibly Regulate Retail Service in Violation of the FPA*

The FPA divides responsibility for the regulation of energy between state and federal regulators. FERC's jurisdiction extends to the transmission of electric energy in interstate commerce and to sales of electric energy at wholesale. "But the law places beyond FERC's power, and leaves to the States alone, the regulation of 'any other sale' — most notably, any retail sale — of electricity." Congress deliberately left the oversight of retail electric service to the states, which traditionally have regulated such matters within their borders.

Crucially, this jurisdictional line is equally binding on PJM. PJM operates only pursuant to its FERC-approved tariffs; it has no regulatory authority beyond what FERC itself could lawfully exercise and no service authority beyond the non-retail service it provides under FERC regulation. Thus, if a given action lies outside FERC's power because it regulates retail sales or creates or modifies the terms of a retail service, PJM also lacks the authority to implement that action. In other words, PJM cannot use its tariff to do what the Commission itself could not and cannot do.

Under these standards, PJM's NCBL proposal crosses the jurisdictional line. The proposal establishes a new category of retail service for certain large loads whereby those customers would receive service on an interruptible basis subject to curtailment in emergencies and would be exempted from paying capacity charges. This is not simply a tweak to PJM's wholesale market rules; it is the creation of a novel form of retail electric service, with specified terms and conditions set on a regionwide basis by PJM. Deciding whether and on what terms a retail customer should receive firm service or interruptible service has always been a state function. Indeed, state utility commissions often oversee

or approve special retail tariffs for large commercial and industrial customers, including interruptible rate programs.[2]

In contrast to this well-understood and long-established approach, Exelon is concerned that PJM's proposal attempts to compel retail delivery utilities to offer a new interruptible retail service to certain customers (potentially on an involuntary basis), on terms devised by PJM and not filed with or approved by their respective state regulators. The fact that PJM plans to compensate the end user by removing NCBL from the auction does not change the reality that what is being changed is the nature of service to the end-user. Whether a particular data center customer receives firm, capacity-backed supply or a non-firm, curtailed supply in emergencies is a condition of that end-use customer's retail service. Neither PJM nor an EDC is unilaterally permitted to dictate that condition of service (and also dictate the associated rate for the interruptible nature of that retail service, through an exemption from capacity charges) via a federal tariff. Exelon believes this would be an unlawful attempt to wrest a decision about a retail service offered by a utility away from the utility and state authorities that determine how to serve end-use load.

Indeed, state utility regulators are currently actively engaged on the challenges of large new data center loads, and they possess ample tools—consistent with state law and retail ratemaking principles—to accommodate such loads in ways that support reliability. Several PJM states, including states where Exelon has utilities, have considered or adopted retail tariff provisions to ensure that large load additions bear appropriate cost responsibility.[3] Similarly, state commissions could require a data center to take service on an interruptible tariff. These are fundamentally retail decisions that also involve important public policy considerations, including economic development, rate equity among customers, and local reliability impacts.

*2. The NCBL Proposal Raises Certain Issues Related to NERC Reliability Standards that Should be Addressed in a NERC Stakeholder Process*

PJM's proposal not only runs afoul of the FPA's division of jurisdiction, but it also invokes NERC Reliability Standards as a means of implementation without appropriate consideration of NERC procedures as well as state legislated load shedding options. PJM indicates it would use a new operational step—"Pre-Emergency Curtailment of Non-Capacity-Backed Load"—to curtail NCBL customers ahead of other actions, effectuated

[2] *See* Docket Nos. 22-0486/23-0055/24-0181 (Cons.) approving Rider MLR – Mandatory Load Reduction Program and Docket No. 05-0597 approving Rider VLR – Voluntary Load Response and System Reliability Program.
[3] *See* Docket Nos. 25-0679/25-0677 (Cons.) for tariff revisions related to deposit requirements and transmission revenue security for large load customers over 50 MW.

by issuing operating instructions to transmission operators to drop the NCBL. The proposal specifically references NERC Reliability Standard IRO-001-4 R2 as authority for PJM to direct such targeted load shedding. Standard IRO-001-4 R2 states: "Each Transmission Operator, Balancing Authority, Generator Operator and Distribution Provider shall comply with its Reliability Coordinator's Operating Instructions, unless compliance with the Operating Instructions cannot be physically implemented or unless such actions would violate safety, equipment, regulatory, or statutory requirements."

Although it is true that PJM, in its role as the NERC-registered Reliability Coordinator ("RC") for the region, can demand load shedding when necessary to prevent a system collapse, the *scope and purpose* of that authority is fundamentally different from what PJM proposes in its NCBL CIFP package. Although as discussed further below, Exelon is supportive of having discussions targeted at exploring appropriate curtailment mechanisms to meet the reliability and resource adequacy moment, we are concerned that the PJM proposal is stretching NERC's emergency action standards too far, particularly without more careful discussion that includes NERC, TOs/EDCs, states, and PJM.

To the extent PJM believes that an RC having the ability to drop certain large loads is a necessary reliability tool looking forward, the proper path would be to develop a new standard through the NERC process or alternatively to work through a state sponsored process. Those processes exist to ensure that any such measure is thoroughly evaluated for reliability impacts, consistency with other standards and interests, and is subject to approval by the appropriate authorities. By embedding NCBL curtailment in a tariff market rule filing, Exelon is concerned that PJM would be bypassing NERC stakeholder review as well as state jurisdictional review. Novel operational practices should be vetted in the standards arena and perhaps the state legislative and/or regulatory arena rather than created through the PJM tariff process.

Finally, the PJM proposal creates serious compliance concerns. Section 215 authorizes civil penalties for violating reliability standards. If PJM establishes through its tariff an expectation to shed NCBL customers to manage adequacy, but a state regulator objects that such a directive violates retail service obligations, utilities will be caught between competing legal obligations. Exelon believes that implementing NCBL as proposed would put PJM and its member utilities in an untenable position vis-à-vis NERC compliance. PJM's laudable focus on reliability must operate within the constraints of the FPA. Exelon is concerned that this proposal may not.

B. <u>Broadening the Scope of the CIFP</u>

Recognizing the significance of the above legal concerns, Exelon would offer that further consideration should be given to what is in and out of scope of the CIFP Large Load Additions initiative. Exelon's perspective is grounded in an interest in solving the problem expediently and avoiding impeding economic development in the PJM territory while limiting the risk that the CIFP effort is bogged down by legal uncertainty and reasonable stakeholder differences in opinion around what levers will be needed when.

*1. Voluntary NCBL Solicitation In Scope; Required NCBL Participation Out of Scope*

Although voluntary NCBL within a retail rate construct allowed by state law and approved by retail regulators merits consideration, Exelon is concerned about how to operationalize such curtailments, including how to provide for them in state tariffs as well as classifying the emergency and perhaps non-emergency situations that would require them. Optimizing which customers need to be curtailed and then establishing an operations mechanism to identify, direct, and track the loads that need to reduce to mitigate real time overloads requires heavy PJM involvement in what would certainly be a complicated process. Exelon does not believe that PJM's CIFP process is positioned to effectively permit PJM and transmission owners/state jurisdictional public utilities to coordinate around these complicated and complex challenges.

*2. Further Recommendation – Load Shedding Education*

Exelon thinks PJM should broaden this CIFP effort to begin the discussion around the fast-approaching load shed reality. Significantly, we again reiterate a request that Exelon and several other stakeholders have made that PJM provide an updated public facing "4R" report or other appropriate assessment that describes when PJM realistically anticipates a shortfall in generation to meet load. This will be the reliability challenge we all may need to face and begin mitigating for until new generation comes online. By providing a best estimate of the timeframe in which demand will outpace supply, the discussion can focus on determining what the appropriate steps would be in the short and possibly longer timeframe to address this issue. This discussion would also allow PJM, load serving entities, and states to be as proactive as possible in mitigating future reliability impacts.

PJM should take comfort in the fact that other critical entities have provided a vehicle for PJM to commence this much needed discussion surrounding load shedding. The Department of Energy ("DOE") recently provided in Resource Adequacy Report that if current retirement schedules of existing generation capacity remain unchanged and the rate of adding firm, dispatchable generation additions does not accelerate, most regions

will face unacceptable reliability risks within five years.[4] Under these conditions, the nation's power grid will be unable to meet projected demand for data centers driving Artificial Intelligence, manufacturing, and re-industrialization while keeping the cost of living low for all Americans.[5] Without "decisive" intervention, the risk of power outages could increase by 100 times by 2030.[6] In emphasizing the urgent need for robust and rapid reforms, DOE concluded that staying the present course would undermine U.S. economic growth, national security, and leadership in emerging technologies. Undeniably, these DOE determinations invite PJM to consider reporting more specifically with respect to our region and beginning a dialogue as well as education on its role as distinct from states and TOs/EDCs with respect to a near-term increase in load shedding events as well as efforts to limit the duration of such an environment.

Additionally, NERC, in its 2024 Long-Term Reliability Assessment, found that most areas within the North American bulk power system will face mounting resource adequacy challenges in the next decade as less overall capacity, particularly dispatchable resources, is expected to come online relative to what was projected to be needed to meet future demand needs.

Ultimately, we owe it to our customers, current and future, and our state policymakers and regulators to begin informing them of the real and increasing possibility of load shedding in the not-to-distant future, even as we continue efforts to build both the transmission and generation needed to address and mitigate that risk. Doing so may also result in additional creative solutions that would further mitigate and address this risk. Without being informed of the imminent need, we may lack the collective alignment amongst policymakers, regulators, and operators to more aggressively tackle these issues.

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[4] *See* U.S. Department of Energy, *Resource Adequacy Report on Evaluating the Reliability and Security of the United States Electric Grid*, at 1 (July 7, 2025), https://www.energy.gov/sites/default/files/2025-07/DOE%20Final%20EO%20Report%20%28FINAL%20JULY%207%29_0.pdf ("2025 Resource Adequacy Report"). DOE noted that various projections for incremental data center electricity use by 2030 ranged widely from 35 GW to 108 GW. For purposes of its analysis, DOE adopted a national midpoint assumption of 50 GW by 2030, which projection aligned with Electric Power Research Institute ("EPRI") and Lawrence Berkeley National Laboratory ("LBNL"). *See* EPRI, *Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption* (May 2024), https://www.epri.com/research/products/3002028905; *see* Lawrence Berkeley National Laboratory, *2024 United States Data Center Energy Usage Report* (Dec. 2024), https://escholarship.org/uc/item/32d6m0d1.

[5] 2025 Resource Adequacy Report at 1.

[6] 2025 Resource Adequacy Report at 1.

**Shell Energy North America (US), L.P.**
1000 Main Street, Level 12
Houston, TX 77002
Tel +1 713-230-3340

August 25, 2025

**VIA Electronic Delivery Only**

Michele Greening
Matt Connolly
PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Audubon, Pennsylvania 19403

***Re: Critical Issue Fast Path – Large Load Additions***

Dear Ms. Greening and Mr. Connolly,

Shell Energy North America (US), L.P. ("Shell Energy") appreciates the opportunity to comment on PJM's Critical Issue Fast Path ("CIFP") Large Load Additions ("LLA") effort. Shell Energy supports the PJM Board's activation of the CIFP process as a preferable alternative to a unilateral set of FERC filings without stakeholder input or voting.[1] However, Shell warns as it has in the past that a lack of time to produce a holistic, durable set of rule changes may result in unintended consequences.[2] PJM proposes implementation as early as the 2028/29 RPM auction.[3] The Quadrennial Review and changes to Effective Load Carrying Capability ("ELCC") will impact the same target delivery year. PJM should consider a single package and subsequent FERC filing to avoid adverse outcomes with a piecemeal approach.

As PJM works through the CIFP LLA issue charge and issue identification, it is paramount that PJM consider principles of transparency, preservation of price formation, non-discriminatory open access, and the potential for adverse impacts to existing generation interconnection and interconnecting load participants.

As currently conceived, PJM's proposal to introduce a **mandatory** Non-Capacity-Backed Load ("NCBL") reliability backstop is highly concerning. This proposal adds yet another administrative mechanism that could distort market fundamentals, lead to inaccurate and ineffective market signals, undermine investor confidence, and jeopardize reliability. By giving PJM the ability to adjust the demand curve, inaccuracies in forecasting shift the risk of reliability and higher costs onto consumers, particularly since these determinations must be made more than three years in advance on a standard auction schedule. The triggering criteria and NCBL

[1] *See PJM Interconnection, L.L.C.,* FERC Docket ER25-682-000, "Conditional Protest of Shell Energy North America (US), L.P." (filed January 6, 2025) (PJM has made many section 205 filings in the past year that were rushed through the stakeholder process and diluted meaningful stakeholder participation)
[2] *See Shell Energy Letter to PJM Board,* "Re: Critical Issue Fast Path Capacity Market Reforms and Looking Beyond" (September 18, 2023).
[3] *See PJM Interconnection, L.L.C.,* "Large Load Additions PJM Conceptual Proposal and Request for Member Feedback" (August 18, 2025).

assignments to Electric Distribution Companies ("EDCs") and Load Servings Entities ("LSEs") must be transparent and, if NCBL is mandatory, apply only to new large loads. In addition, PJM must determine whether it has authority to direct states and utilities to allocate NCBL as intended. Seen at a high level, NCBL is simply another form of demand response with different participation requirements. To that end, PJM should instead make NCBL a **voluntary** product like demand response products today.

To qualify as a large load addition, PJM should require EDCs and LSEs to provide detailed load data, including co-located or bring-your-own-generation ("BYOG") information, with the same level of granularity and confidentiality as the generation interconnection queue (e.g., zone, MWs, anticipated COD). Furthermore, these proposed additions should disclose whether an Electric Service Agreement ("ESA") has been executed and associated financial commitments.

PJM should define clear and objective criteria for priority interconnection under the BYOG pathway. To limit the impact to existing generation in the interconnection queue, any expedited pathway should prohibit net export to PJM on an interim basis until provisional or full interconnection service is established. Resources connecting in this manner should not be able to queue jump in front of existing queue participants to achieve full interconnection service.

Finally, NCBL will affect price formation in the operational time frame as load curtails. When demand response is deployed during load management reduction, a strike price is set and contributes to price formation.[4] PJM should create a similar mechanism to provide a signal to the market so it can efficiently respond during emergency conditions.

Sincerely,

/s/ Sean Chang

Sean Chang
Director, Regulatory Affairs
Shell Energy North America (US), L.P.
1000 Main Street, Level 12
Houston, TX 77002
Tel +1 713-230-3340
Sean.Chang@shell.com

[4] *See Monitoring Analytics,* "Demand Response Offers" (January 5, 2018). 120-minute, 60-minute, and 30-minute lead time demand resources have strike prices of $1,100/MWh, $1,425/MWh, and $1,849/MWh respectively.

**Feedback of the Pennsylvania Office of Consumer Advocate to**
**PJM's Critical Issue Fast Path Committee's**
**Conceptual Proposal for Large Load Additions**

August 27, 2025

## I. Purpose of Comments and Introduction

On August 18, 2025, PJM presented "Large Load Additions PJM Conceptual Proposal and Request for Member Feedback"[1] (PJM Conceptual Proposal or Proposal) as part of the Critical Issue Fast Path (CIFP) Committee process.

The Pennsylvania Office of Consumer Advocate (PA OCA) represents the interests of Pennsylvania utility consumers, especially residential consumers, in matters before PJM, the Federal Energy Regulatory Commission, the Pennsylvania Public Utility Commission, and state and federal courts. The PA OCA is pleased to have the opportunity to provide these initial written comments on the PJM Conceptual Proposal and reserves the right to provide additional comments as more information is made available regarding the details of this proposal.

## II. PA OCA's Understanding of Key Points

The following key points inform the PA OCA's understanding and response to the PJM Conceptual Proposal:

**Key Point re: Economic Development in the Commonwealth of PA**

- The Commonwealth of Pennsylvania and the nation are facing unprecedented opportunities relating to data center, high-tech cloud computing, and artificial intelligence campuses (Large Loads) that can spur economic growth, including the creation of high-quality jobs and various infrastructure investments.

- However, the needs of Large Loads must be balanced with the interests of existing consumers, especially residential customers, to maintain reliable, reasonable, and affordable utility service.

**Key Points re: Future Projections and Potential Risks**

- PJM has articulated a concern that by December 2026 demand for electricity will likely exceed available generation supply in the PJM markets. This is due to forecasted explosive and accelerated load growth driven by the assumed proliferation of Large

[1] Available at https://www.pjm.com/-/media/DotCom/committees-groups/cifp-lla/2025/20250818/20250818-item-03---pjm-conceptual-proposal-and-request-for-member-feedback---presentation.pdf.

Loads that will outpace the interconnection of additional generation in PJM. This forecasted supply shortage was not foreseen until late 2024.

- Government leaders at state and national levels have expressed policy objectives to support the development of Large Loads in the United States as well as to support the continued availability of affordable, reliable, and reasonable electricity service to serve existing electricity customers.

- The capacity market in PJM, or Reliability Pricing Model (RPM), already exists and aims to ensure that enough power generation and demand-reducing resources in the region are available to meet future electricity demand and prevent blackouts during peak demand periods.

- However, potential pricing and supply risks have been articulated that the forecasted supply shortage driven by Large Loads cannot reasonably be solved by the existing capacity market without drastically raising electricity prices for all consumers and/or potentially experiencing blackouts for residential customers.

**Key Points re: Existing Market and Administrative Frameworks**

Under existing frameworks in PJM:

- By paying for capacity costs cleared in the RPM, existing customers of PJM, including residential, commercial, and industrial customers, have paid for generators to provide them with reliable and affordable power for the relevant Delivery Year. Existing customers continue to pay these costs as new capacity market auctions are cleared on a rolling three-year forward period.

- PJM has a queue to study and approve the interconnection of new generation. New generation can interconnect to the grid only after being studied and approved by PJM. There exists a backlog in the current queue for new/additional generation.

- However, no comparable "queue" exists for the interconnection of new load. This means that new load, no matter how large in size, can expect to interconnect to the grid and be served with reliable, reasonable, and affordable electricity

- Large Loads have three supply options to meet their electricity demand needs: (1) participating in the PJM markets to procure power generation; (2) entering into power purchase agreements directly with a generation supplier that will supply electricity from a certain power plant(s); or (3) being involved in the construction, ownership, and/or operation of new power generation supply, with (2) and (3) commonly referred to as "bring your own generation" or "BYOG". In the BYOG option, Large Loads can exist (1) front-of-meter (FOM), which means the Large Loads are directly integrated

into the distribution system and visible to the load serving entity (LSE) utility and/or regional transmission organization (RTO) in the operational environment; (2) behind-the-meter (BTM), meaning Large Loads receive their energy directly from co-located generation without the use of transmission grid or the LSE/local utility distribution system; or (3) in a hybrid configuration of partial BTM and FOM.[2]

- Existing customers can voluntarily participate in interruptible service through demand response programs and submit their voluntary reduction of demand as an accredited resource into the capacity market or RPM. This means that existing customers can volunteer to have their electricity supply service be curtailed during peak demand periods in exchange for an incentive payment consisting of capacity and energy costs.

**Key Points re: Mandatory Curtailment Programs in Distribution Systems**

- Both the electric and natural gas distribution industries have existing load curtailment frameworks through state commission-approved tariffs to handle peak demand periods that can inform the PJM Conceptual Proposal.

- The major concept is firm vs. non-firm utility service. In gas distribution systems, residential customers pay for capacity and are therefore provided with firm service, meaning they are curtailed last or not at all during distribution curtailment events (where system capacity < peak demand). Meanwhile, large industrial and commercial customers have the option to elect in advance to receive non-firm service and pay a lower tariff rate in exchange for a demonstrated ability to curtail their load during a mandatory event, subject to penalties and calls on financial guarantees for failure to curtail.

- The manual shutdown of Large Loads and other large industrial and commercial customers may potentially present operational issues and risks to health, safety, and general welfare of workers and the public citizenry.

## III. Summary of the PJM Conceptual Proposal

The PJM Conceptual Proposal is a 34-page presentation delivered on August 18, 2025, to PJM stakeholders as part of PJM's Critical Issues Fast Path (CIFP) process. PJM requested written comments by August 27, 2025. Additional PJM stakeholder meetings to discuss the proposal are scheduled for September 2 and 15, 2025.

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[2] *See* NERC's Large Loads Task Force White Paper, "Characteristics and Risks of Emerging Large Loads" (July 2025), pp. 19-20, available at https://www.nerc.com/comm/RSTCReviewItems/3_Doc_White%20Paper%20Characteristics%20and%20Risks%20of%20Emerging%20Large%20Loads.pdf (last visited August 26, 2025) (NERC White Paper).

The Proposal contains three elements, but is directed primarily at the first element:

1. Creation of an additional "Non-Capacity-Backed Load (NCBL)" service for new large loads that would be mandatory in the situation where there is an RTO-wide shortage (RPM Supply < RTO Reliability Requirement) and a sufficient number of customers did not volunteer during a solicitation by electing to be NCBL to reduce the reliability requirement.

    - PJM would solicit voluntary participation in NCBL service in exchange for capacity cost savings (p. 9), will not participate in PJM's Reliability Pricing Model (RPM) auction, and will not pay for capacity for the transition period (p. 17). NCBL customers would differ from customers that are compensated for their participation in demand response programs while also paying for capacity associated with their gross demand.

    - If necessary, PJM would allocate a mandatory NCBL requirement to areas to reduce their load requirements for a base residual (capacity) auction (BRA) to achieve a projected supply-demand balance (p. 10).

    - PJM would require sufficient load to be NCBL to maintain the RTO Reliability Requirement (p. 10).

    - NCBL would only be for Large Load Additions and not used for organic load growth (p. 11). Large Load Additions that are identified as critical load are excluded from NCBL eligibility (p. 12).

    - The Curtailment of NCBL would be a New Pre-Emergency Curtailment of NCBL when the PJM RTO cannot provide adequate capacity to meet the PJM RTOs load and tie schedules or when critically overloaded transmission lines or equipment cannot be relieved in any other way (p. 15)

    - The proposal is an interim solution until adequate supply is projected to be available (p. 9).

2. Consideration of priority interconnection pathways for generation resources with offtake agreements with large loads (p. 24).

3. Consideration of new demand response products to better match the operating capabilities and business models of large loads (p. 26).

## IV. PA OCA Questions

PA OCA has the following specific questions regarding the PJM Conceptual Proposal[3]:

**Confirmation of Key Elements of the NCBL Proposal**

1. PA OCA would like to confirm that according to this proposal, if sufficient customers do not elect voluntary NCBL and PJM experiences projected supply shortages, PJM would implement the mandatory part of the NCBL proposal.

2. PA OCA would like to confirm that PJM is proposing that NCBL would not be required to BYOG. Is PJM distinguishing between BYOG and backup generation? Would backup generation count as BYOG under this proposal? If so, how much BYOG is necessary to meet the curtailment amount that the Large Load has committed to meet? Does it vary by type of BYOG, and how is this requirement determined? Will PJM verify that the BYOG is able to operate on a non-emergency basis per all its applicable permits?

**Clarifications on NCBL Terms, Conditions, and Duration**

3. Has PJM discussed its NCBL proposal with Large Loads and if so, what feedback have they provided regarding voluntarily participation?

4. Will NCBL need to be remotely disconnected (whether by PJM or the relevant transmission owner or LSE in coordination with PJM)? If so, what will the testing procedures be to ensure that disconnections will indeed occur? What happens if the remote disconnection process fails?

5. Will NCBL have a dedicated breaker or breakers that can disconnect the NCBL from the system without disconnecting other electricity customers?

6. The PJM Conceptual Proposal notes that data center backup generation has "limited duration and reliability" (p. 26). If NCBL uses its BYOG or backup generation (see above) to reduce its net demand on the PJM system, what happens if its BYOG or backup generation fails or is insufficient to supply all NCBL's demand?

7. What penalties will NCBLs be required to pay for failure to curtail in accordance with PJM's instructions? What credit requirements will NCBL have to comply with to ensure that it can pay any penalties for non-performance?

[3] Page numbers refer to the PJM Conceptual Proposal presentation.

8. How long does PJM expect the transitional period to be where NCBLs will be necessary (p. 11)? When the transition period is over, what is the process and the timing for NCBL to purchase their required amount of capacity and sunset this program?

9. Exactly what are the operational procedures (p. 14) and operational requirements (p. 15) that must be approved in advance for all NCBLs? More details regarding when NCBLs would be curtailed are needed.

10. Under exactly what conditions will NCBLs be curtailed? Slide 15 indicates that there will be a "New Pre-Emergency Curtailment of Non-Capacity-Backed Load." Does PJM intend to precisely specify these conditions and when they occurred as compared to other measures taken when operational supply shortages emerge such as volunteer calls for load reductions, voltage reductions, emergency transmission and generation limits, etc.?

11. For Large Load Additions that have volunteered or required to be NCBLs, confirm if PJM is proposing to restrict the number, amount, or duration of their curtailments. Since NCBLs have not purchased capacity, confirm if PJM proposes to curtail NCBLs before any pre-existing load that has purchased capacity.

12. How will PJM determine which NCBLs should be curtailed if it does not need to curtail all of them?

13. More details and examples are needed to explain how PJM plans to "assign NCBL obligations to LSEs/EDCs on a mandatory basis if needed" (p. 8 and Appendix). What is the definition of "Area"? What is the relevant period for the Large Load Addition? Does this allocation work over a period of time as supply conditions change? Why is BYOG and demand response (DR) a separate line from Voluntary NCBL?

**PJM's Legal Authority and States' Statutes**

14. States may have laws or regulatory requirements regarding the provision of reliable electric service. How will PJM ensure compliance with any applicable State laws and regulations?

**Additional Questions on Specific Issues Raised in the Proposal**

15. Regarding the NCBL advantages, what is the analysis and basis for each of these advantages listed on p. 19? How much is the reduction in the risk of manual load shedding? What assumptions are being made about the availability of BYOG? Precisely how is "coordinated curtailment with NCBL ensured"?

16. Regarding "Additional Options Considered" (p. 21), what is meant by "reliability backstop impacts"?

17. If adopted, what information does PJM anticipate providing stakeholders and the public regarding its proposed NCBL program if implemented and at what frequency, such as monthly, at the Members Committee or Markets and Reliability Committee meetings?

**Interconnection Process and Demand Response Concepts**

18. The concept of "additional accelerated interconnection pathways" warrants exploration, but the PJM Conceptual Proposal lacks specifics on how to implement it (p. 24).

19. The Demand Response Concept should be considered, but the PJM Conceptual Proposal does not provide any specifics (p. 26).

## V. PA OCA's Preliminary Concerns and Comments

Subject to the PA OCA's review of PJM's answers and clarifications to the questions above, and subject to the further discussion and work of the CIFP Committee, the PA OCA offers the following preliminary concerns and recommendations:

- The presence of Large Loads on the PJM grid is increasing and will continue to increase demand and therefore prices for capacity, energy, and ancillary services.

- Facing a situation where there is an RTO-wide shortage (RPM Supply < RTO Reliability Requirement) and an insufficient number of Large Loads that voluntarily elect NCBL may likely result in unaffordable electricity prices for existing consumers. To alleviate this price risk, further exploration of an alternative option is warranted: mandatory BYOG or mandatory power purchase agreements with new incremental generation in PJM.

- Reliable power should continue to be an objective and priority for PJM for existing customers, especially residential customers, that have paid for capacity. Existing customers that have paid for firm service should not be curtailed to serve new Large Loads. The PJM Conceptual Proposal lacks sufficient protection to prevent curtailment of existing electricity consumers, and the PA OCA recommends that the Proposal be reviewed and modified to address this concern. For example:

    - Sufficient penalties and credit requirements are likely needed to ensure that NCBL will be curtailed when required otherwise PJM may have to curtail electricity customers that have purchased capacity.

    - For Large Load Additions that have volunteered or required to be NCBLs, PJM should not restrict the number, amount, or duration of their curtailments because limiting or restricting the curtailments of NCBL may mean that existing

electricity customers, including residential customers, that have purchased capacity may be curtailed prior to NCBL.

- PJM should precisely specify NCBL curtailment conditions and when they occurred as compared to other measures taken when operational supply shortages emerge such as volunteer calls for load reductions, voltage reductions, emergency transmission and generation limits, etc.

- The PJM Proposal allocates NCBL by areas within PJM based upon Large Load additions (p. 29). If PJM must order a transmission owner or LSE to curtail load, PJM should not do so based solely upon the location of Large Loads, given that this would disproportionately impact the residents in these areas. In a dire situation, once all NCBL is fully curtailed, a more regional approach should be taken.

- The PJM Conceptual Proposal should recognize the difference between BYOG that is FOM versus BTM.

  - BYOG that is FOM or hybrid FOM must undergo capacity accreditation and participate in the capacity market; and

  - BYOG that is BTM and back-up or co-located generation would not participate in the capacity market and exist to operate in an interruptible or curtailment situation to provide supply for the customer's specific load.

- The PJM Conceptual Proposal regarding priority interconnection pathways and new demand response programs is incomplete, noting that PJM stated that they are only exploring the concept. The OCA reserves commenting on these two portions of the proposal when PJM provides detailed proposals.

- The legal authority of PJM to restrict the interconnection of electrical load and to curtail it needs to be reviewed, particularly in the context of state statutes.

- In addition to PJM's efforts with this proposal, PJM has asked if there are other options to be considered (p. 21).

  - The PA OCA strongly recommends that PJM continues to consider and implement all effectives measures including accelerating generation interconnections, expanding and enhancing demand response programs, and improving load forecasts by removing duplicative and speculative load.

  - In the Proposal, PJM stated that curtailment of NCBL would be a New Pre-Emergency Curtailment of NCBL when the PJM RTO cannot provide adequate capacity to meet the PJM RTOs load when critically overloaded transmission

lines or equipment cannot be relieved in any other way (p. 15). The PA OCA is concerned with focusing on acceleration of approvals where transmission projects have not already received all necessary state approvals. The PA OCA recommends that PJM and transmission owners focus on Grid Enhancing Technologies (GET) options. Also, PJM should investigate existing transmission that could benefit from reconductoring with more advanced conductors and installing Dynamic Line Rating (DLR) equipment on suitable transmission lines. These solutions are more readily accomplished in the short term than building transmission lines and are cost effective.

- Finally, during times of generation shortages, market power concerns are heightened because the withholding of small amounts of new generation can artificially raise capacity prices above competitive levels. PJM and the PJM Market Monitor, Monitoring Analytics, should ensure that suppliers are not exacerbating the shortage by withholding supplies.

## VI. Conclusion

The PA OCA respectfully submits these comments on behalf of Darryl Lawrence, Consumer Advocate of Pennsylvania.

The PA OCA appreciates the opportunity to comment on the PJM Conceptual Proposal and looks forward to working with regulators, PJM, and stakeholders on this critical matter.

The PA OCA's comments were prepared in consultation with, and with the assistance of, Frank A. Felder, Ph.D., of Independent Electricity Consultants, LLC. The designated contact person for the PA OCA about these comments is Melanie Joy El Atieh, Deputy Consumer Advocate, PA Attorney I.D. # 209323, reachable either by email at melatieh@paoca.org or by phone at (717) 780-4531.

August 27, 2025

**Submitted via Email**

**Attn:** Michele Greening and Matt Connolly

PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Audubon, PA 19043

RE: PJM's Critical Issue Fast Path (CIFP) and Large Load Addition (LLA) proposal

Dear Ms. Greening and Mr. Connolly,

The Solar Energy Industries Association (SEIA) appreciates the opportunity to comment on PJM's Critical Issue Fast Path (CIFP) and Large Load Addition (LLA) proposal. SEIA shares PJM's goal of ensuring resource adequacy across the region, and our member companies are deeply involved in meeting the challenges ahead through continued investment in the reliable performance of existing generation and the development of new resources to meet growing demand. SEIA generally supports PJM's decision to initiate a CIFP to address LLAs. However, as part of this CIFP, PJM must address two threshold issues that will inform how PJM should move forward. First, PJM must obtain more certainty in its load forecasts, as PJM cannot address the problems caused by load growth without better understanding the risks associated with that growth. Second, PJM must assess current processes to determine whether they are sufficient to address the load growth problem. Relying on "one-time" fixes to the interconnection process will add even more uncertainty to the PJM queue, which ultimately will harm resource adequacy.

## I. Large-load growth is highly uncertain. Do not undermine the interconnection queue based on preliminary and speculative forecasts.

PJM's preliminary 2025 LLA numbers show a substantial increase driven largely by data center projects. At the same time, PJM acknowledges a "large cone of uncertainty" around the trajectory and amplitude of that growth. For stakeholders to evaluate whether structural changes

to interconnection queues are appropriate, PJM must first provide transparent evidence that a robust, near-term adequacy problem exists. At present, PJM does not provide alternative scenarios (for example, slower data-center growth or delayed in-service dates for new resources, or increased use of distributed energy resources) necessary to assess whether the alleged shortfall is likely or speculative. Nor has PJM reconciled widely divergent utility and state forecasts in a way that yields a consistent set of assumptions underlying any proposed CIFP action.

Data centers present unique forecasting challenges. Public analyses suggest that numerous developers are submitting duplicative interconnection requests across multiple states.[1] As described in a recent webinar at the National Association of Regulatory Utility Commissioners, "The lack of primary performance and utilization data indicates that much greater transparency is needed around data centers. Very few companies report actual data center electricity use and virtually none report it in context of IT characteristics such as compute capacities, average system configurations, and workload types."[2] This opacity makes it difficult for planners to distinguish multi-state interconnection shopping from actual committed load.[3] PJM needs to apply the proper amount of skepticism to calculating future demand, something other U.S. grid operators are successfully doing.[4] Recent data from New Jersey demonstrates the problem. New Jersey reported a 16,000 MW increase in its statewide 2030 forecast from the prior year, yet three of the state's four utilities showed no change or slight decreases in their 2024 forecasts while a single utility reported a roughly 6% increase and requested a "large load adjustment."[5] The state noted that PJM lacks a standardized approach for discounting speculative

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[1] Jeff St. John, *The Country's Biggest Energy Market Struggles to Reform Amid Soaring Costs*, Canary Media, July 28, 2025, https://www.canarymedia.com/articles/energy-markets/pjm-rising-costs-interconnection-reform.

[2] Tyler Norris, *The Puzzle of Low Data Center Utilization Rates,* Aug. 7, 2025, https://www.powerpolicy.net/p/the-puzzle-of-low-data-center-utilization.

[3] *See id.* ("We're still flying partly blind, and until we improve transparency — whether through benchmarking programs, voluntary reporting, PUC requirements, or academic-industry partnerships — policymakers and planners will be left to make consequential decisions based on assumptions rather than evidence.").

[4] Jeff St. John, *The Country's Biggest Energy Market Struggles to Reform Amid Soaring Costs*, (quoting Abe Silverman, an attorney, energy consultant, and research scholar at Johns Hopkins University).

[5] NARUC Staff Surge Call- Forecasting Load growth: Assumptions and Risks., Feb. 10, 2025, https://pubs.naruc.org/pub/EBDE4EE2-CE58-1BDD-47C4-7990D22A7A97.

proposals, phasing in new loads, and accounting for tax-incentive-driven site shopping—gaps that PJM's current process has not fully addressed. Absent such standardization and improved data, PJM's "tighter conditions" may be based on incorrect projections.

Failing to correctly understand LLAs can produce several concrete harms. First, treating speculative or duplicative proposals as likely demand risks *overbuilding* generation and transmission that ratepayers will ultimately pay for but may not be needed. Premature transmission expansions and network investments are expensive and difficult to unwind. Second, inaccurately discounting real, near-term loads can produce *underbuilding* in constrained areas, leading to price spikes and localized reliability shortfalls. Third, uncertain or shifting forecasts erode the predictability of market signals. Frequent ad-hoc rule changes erode market signals and predictability, which deter the long-term capital investments needed to build new generation. Given these risks, SEIA recommends that PJM improve forecast fidelity to avoid using speculative predictions as the basis for permanent queue or deliverability changes.

## II. Existing, less disruptive, solutions should be used before implementing further queue-jumping mechanisms.

PJM's CIFP proposes several solutions, most prominently, a Non-Capacity-Backed Load (NCBL) pathway that would fundamentally change the link between load, capacity obligations, and interconnection sequencing. Under PJM's design, NCBL would be excluded from capacity auctions and would not pay for capacity during the transition period, while Bring Your Own Generation (BYOG) and Demand Response (DR) would be credited against any NCBL allocation. PJM would then reduce a zone's forecasted obligation and shift the Variable Resource Requirement (VRR) curve accordingly, so long as supply appears short.

However, those mechanics create several problems. First, removing (or temporarily excluding) load from RPM undermines basic market principles. Parties that impose demand on the system should contribute to the capacity that serves them. Second, priority interconnection pathways risk queue-jumping, i.e., allowing certain projects to leap ahead at the expense of existing interconnection customers. Third, behind-the-meter arrangements, like some BYOG

arrangements,[6] if not tightly constrained, can be structured to produce the appearance of low net load while leaving the system with unrecovered costs borne by other customers. PJM's slides show these design choices in outline but do not yet provide guardrails to prevent the redistribution of costs or the creation of privileged queue status.

PJM's analysis of existing pathways is also incomplete. PJM points to the "reformed interconnection process" as an existing interconnection pathway for new supply. Yet PJM has not completed implementation of the additional reforms required under Order No. 2023, and in fact, FERC has recently directed PJM to rework certain major portions of the compliance filing.[7] PJM will not even file this revised proposal until October 22, 2025. PJM also points to its surplus interconnection service process as a potential pathway. However, even after revising its rules,[8] some developers still report difficulties in using this process. PJM's citation to the Reliability Resource Initiative (RRI) raises the question as to whether PJM anticipates implementing this initiative again, contrary to PJM's initial assertions in the RRI filing that it was a one-time solution. Even with these existing pathways, PJM has not quantified how partial or accelerated implementation would solve interconnection challenges. PJM's presentation lists options but does not provide a realistic estimate of when and how much capacity each option can deliver. Without this information, it is difficult for stakeholders to accurately assess whether NCBL is necessary.

These gaps are compounded by broader capacity-market dysfunctions within PJM. Over the past decade, PJM's capacity market has experienced late auctions, frequent rule changes, and artificial price constraints that together reduce responsiveness to price signals. Those market conditions make it harder for the development of new generation and also bilateral contracting (which is labeled as an existing option for capacity procurement). This is why any proposal that changes market incentives (like NCBL or priority sequencing) must be supported by rigorous

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[6] It is unclear from PJM's proposal as to whether BYOG would include only BTM generation or other generation obtained via a power purchase agreement.

[7] *PJM Interconnection L.L.C.*, 192 FERC ¶ 61,077 (July 24, 2025).

[8] *See EDP Renewables N. Am. LLC v. PJM Interconnection, L.L.C.*, Docket No. EL24-125-000 (July 5, 2024). The Complaint concerned issues related to the EDPR's request for Surplus Interconnection Service under the Tariff. Complaint withdrawn April 24, 2025.

analysis before being adopted. Broad market dysfunction, coupled with incomplete interconnection reforms leads to increased uncertainty within the RTO. To fix this problem, PJM should conduct a robust analysis that will allow stakeholders to judge whether NCBL or priority sequencing is necessary and, if not, enable less disruptive options to proceed.

Finally, if PJM does move forward with a "bring your own generation" program, it should be technology-agnostic and focused on the specific attributes needed (i.e., MW UCAP). Under any BYOG program, PJM should prioritize existing interconnection procedures. To the extent that a reliability queue is necessary, PJM should prevent adverse impact to prior-queued projects by ensuring that they have priority access to transmission system capability.

## III. Conclusion

SEIA supports PJM's objective of preserving reliability and is committed to identifying practical, and timely solutions. But PJM should not adopt major, and potentially disruptive, reforms based on speculative forecasts. Before moving forward with any proposal, PJM should improve LLA forecasts, quantify exactly how much capacity each existing pathway can deliver (and when), and fully implement Order No. 2023 reforms. If, after these robust analyses are completed, PJM still identifies a demonstrable shortfall, any corrective measure should be narrowly tailored to preserve market fundamentals and open access principles. Thank you for the opportunity to comment.

Respectfully Submitted,

Melissa Alfano, Senior Director of Energy Markets and Counsel
Greg Giunta, Manager of Regulatory Affairs and Counsel
Solar Energy Industries Association
1425 K St N.W., Suite 1000
Washington, D.C. 20005
(202) 566-2873
malfano@seia.org
ggiunta@seia.org

August 27, 2025

Michele Greening and Matt Connolly
PJM Interconnection, LLC
(Sent via Email)

**Advanced Energy United Comments on Critical Issue Fast Path – Large Load Additions**

To Michele Greening and Matt Connolly:

Advanced Energy United appreciates the opportunity to provide feedback and comments on PJM's Conceptual Proposal for Large Load Additions presented at the August 18th Pre-CIFP workshop.

Advanced Energy United ("United") is a national association of businesses that works to accelerate the move to 100% clean energy and electrified transportation in the U.S. The term advanced energy encompasses a broad range of products and services that constitute the best available technologies for meeting our energy needs today and tomorrow. These include electric vehicles ("EV"), energy efficiency, demand response ("DR"), energy storage, solar, wind, hydro, nuclear, heat pumps (air- and ground-sourced), and smart grid technologies. United represents more than 100 companies in the $374 billion U.S. advanced energy industry, which employs 4.1 million U.S. workers.

United applauds PJM's efforts to provide clarity around the myriad and unprecedented issues associated with the dramatic increase in demand on the PJM system associated with large load additions and the implications for system reliability and consumer pricing. We also recognize the need to move as quickly as possible to establish appropriate rules on a timely basis given the speed at which new large load proposals are moving forward. However, we are

concerned that the proposed timeline, calling for a FERC filing in December 2025, will not allow sufficient time to fully address all the complex issues raised by large load additions. A hasty, flawed proposal will fail to fairly balance the competing imperatives of accommodating large load additions expediently while protecting reliability and ensuring fair allocation of costs.

PJM specifically requests feedback on the following objectives:

- Create ways for new large loads to connect as rapidly as possible and at the same time, determine a plan for how reliability is maintained in case there is a resource adequacy shortfall.
- Create incentives and operational pathways for incremental loads planning to connect to the system to more directly support rapid build out of new supply to serve their needs.
- Enable more efficient utilization of the grid by increasing demand flexibility.

United strongly supports these objectives. However, the centerpiece of the PJM proposal - the Non-Capacity-Backed Load (NCBL) concept alone - does very little to achieve these objectives as currently proposed, and the scope and timeline of the CIFP needs to be expanded considerably to explore meaningful ways to successfully achieve these objectives.

PJM's proposal details existing options for load to manage price risk and procure supply, but given that PJM failed to secure enough capacity in the last auction to meet its reserve requirement target, and given the long lead times we are currently experiencing to bring on new load, additional solutions are clearly needed, at least in the short term. The NCBL concept alone does little to mitigate these concerns and match new demand with efficient and low-cost supply. PJM's proposal briefly mentions a "bring your own generation" (BYOG) concept to allow accelerated interconnection pathways for projects contracted with large loads, which may, in contrast to a mandatory NCBL, offer a viable path forward. However, this offering is not fleshed out in any detail.

The PJM proposed Non-Capacity-Backed Load (NCBL) gives the appearance of allowing a pathway for large load to connect to the PJM system, but as a practical matter will do little to facilitate most new large load additions, which will require access to the energy equivalent of new capacity on the PJM system. There are several issues with the NCBL as currently proposed that will need to be addressed:

- **Mandatory participation.** While PJM states that "[p]articipation would ideally be voluntary," it also says that "PJM could assign NCBL obligations to LSEs/EDCs on a mandatory basis if needed." This means that NCBL could be forced upon large loads involuntarily (and potentially retroactively). A mandatory NCBL effectively closes PJM for large new load additions that cannot opt for one of the alternatives. These loads will seek to connect where they can either access capacity or have a clear pathway to access capacity in the future (presumably outside PJM.)
- **Impact on markets.** PJM's discretion to impose mandatory NCBL also creates a risk that generators will discount the BRA as a durable market signal, dampening its role in incentivizing resource entry. It could also suppress the very capacity price signals necessary to attract new generation.
- **Timeline to exit NCBL treatment.** PJM describes NCBL as an "[i]nterim solution until adequate supply is projected to be available," but gives no indication of when or how loads would be transitioned off NCBL if that is their desired outcome. If it does suppress prices and new entry, it could create the need to retain it in perpetuity.
- **Curtailment requirements.** To even consider accepting NCBL, large loads need significantly more information about the technical requirements and capabilities associated with NCBL. If any of these parameters are onerous or subject to changes year-to-year, large loads may look outside PJM to interconnect.
- **Emergency procedures.** Emergency demand response resources will also be impacted by when and how NCBL is curtailed, which must be considered as part of the proposal. Assuming that NCBL is curtailed prior to emergency DR, it should not be considered an emergency operational event for purposes of overriding restrictions on diesel generation run times. In fact, it should not even be included as an emergency action.

- **Mismatch between capacity and transmission needs.** The proposal states that NCBL will not be included when determining capacity needs but will be included in the RTEP. This means that NCBL are still subject to transmission costs as well as transmission delays. For example, the current proposal would not help a project move forward quickly if it triggered transmission expansion projects. It also creates a mismatch between capacity and transmission needs without clarifying how this will be reconciled. PJM should clarify if the proposal is meant to provide a bridge to allow interconnections even if the usual supporting infrastructure is not in place.

Therefore, at a minimum, the scope of this CIFP effort needs to include a full examination and articulation of rules around BYOG (including DR,) which in effect is the only way for new large load to come to PJM in the near term. Interconnection and transmission will also need to be examined comprehensively in the context of a potential BYOG approach. To address these issues together comprehensively, PJM needs to also continue to examine issues such as large load forecasting, as the consequences of misjudging the volume of new load even under a mandatory NCBL regime are consequential, potentially resulting in an over-build of transmission and an under-build of capacity and perhaps result in long term, ongoing capacity shortfalls. In many ways, the PJM proposal raises more questions than it answers, for example if a large load brings its own capacity and generation, can they still be assigned to mandatory NCBL? And the uncertainty around assignment from non-mandatory to mandatory NCBL over time will have a chilling effect on new load coming to PJM. Further, given the many concerns likely to be raised with the NCBL proposal, a full examination of the potential for a non-discriminatory large load interconnection queue should be included in the scope.

In light of the critical importance of BYOG pathways, United understands PJM's stated operational objective in this proposal to "create incentives and operational pathways for incremental loads planning to connect to the system to more directly support rapid build out of new supply to serve their needs." However, more information is needed about the related concept on Page 24 of the proposal: "PJM is exploring the concept of additional accelerated interconnection pathways for projects contracted with large loads." United believes PJM should first prioritize the existing queue and continue to seek innovative solutions to bring

existing queue resources on-line more quickly. Any alternative pathways to connect must be fair, non-discriminatory, and competitive, and should be technology-agnostic, focused on the attributes needed for resource adequacy (i.e., UCAP). Any new process should be developed through a robust and thoughtful stakeholder process.

Finally, Demand Response (DR) is a vital and underutilized resource, and the only capacity resource that can be quickly deployed to meet urgent reliability needs. We are pleased that PJM proposes exploring the concept of additional demand response enhancements to match the capabilities of new, large loads. All forms of DR, including DR from aggregators/CSPs and Virtual Power Plants (VPP) creating firm reliability resources for PJM needs to continue to be recognized and fully considered in the context of large load additions. Many large load customers may be relatively limited in their direct ability to act as demand response resources through curtailment (as opposed to deploying backup generation,) and this needs to be fully understood in this CIFP process. PJM's initial CIFP proposal leaves many questions about DR[1] as it relates to large load additions unanswered, and all possibilities of DR as a resource should be explored as part of the scope of this CIFP process.

With respect to the CIFP process itself, United cautions against rushing to complete the NCBL ahead of the 2028/2029 BRA. In particular, we note that most large loads that will be included in that auction have already received an Electric Supply Agreement (ESA) that is not subject to PJM's review or approval. Therefore, unless PJM proposes to somehow unwind existing state-approved ESAs, large loads in the 2028/2029 BRA cannot have NCBL thrust upon them. If NCBL is intended in part as a relief valve for this upcoming auction, it will fail to produce the desired results. The region should instead spend the time needed to consider large load issues

- [1] As just one example, AEU recognizes the sensitivity of ELCC to load assumptions, and data centers can have the greatest single impact on ELCC based on PJM's own sensitivity analysis (*see* https://www.pjm.com/-/media/DotCom/committees-groups/committees/pc/2025/20250313-special/2026-2027-irm-fpr-elcc-and-winter-risk.pdf, slides 13 – 25). If the 26/27 BRA ELCC analysis had been run using the 25/26 3rd IA Load Scenarios, the ELCCs for would have been nearly the same between those two auctions (whereas in fact they were very different). These dramatic changes in ELCC make it very difficult for generation and DR to make financial commitments to the market given the level of unpredictability.

comprehensively and separately identify more timely solutions to address any concerns related to the 2028/2029 BRA.

United appreciates the opportunity to provide comments on the PJM CIFP for Large Loads proposal. We recognize the enormous challenge large loads present to PJM and value the hard work of PJM staff in addressing these and many other critical issues in a timely fashion. We look forward to contributing to further discussions on this CIFP and other PJM processes to ensure affordable resource adequacy.

Respectfully submitted,

/s/ Jon Gordon
Jon Gordon
Policy Director, Advanced Energy United
jgordon@advancedenergyunited.org

**Preliminary EKPC Perspectives on PJM's Conceptual Proposal for Large Load Additions**

East Kentucky Power Cooperative, Inc. (EKPC) continues to review and evaluate PJM's conceptual proposal for large load additions. The perspectives offered below are EKPC's initial thoughts and reactions; EKPC's perspectives likely will evolve after considering additional details and analysis PJM may provide and other stakeholder feedback and suggestions.

**Three Components of PJM's Conceptual Proposal**

1. Non-Capacity-Backed Load (NCBL) Service
    - A new service for large loads that opt out of RPM capacity charges.
    - May be voluntary or mandatory depending on system needs.
    - Participants may be curtailed during pre-emergency conditions.
    - Credits given for BYOG (Bring Your Own Generation) and Demand Response (DR).
2. Priority Interconnection Pathways
    - For generation resources with offtake agreements with large loads.
    - Could apply to queued or new projects.
3. New Demand Response Products
    - Tailored to the operational characteristics of large loads (e.g., data centers).
    - Includes potential new ELCC class for limited-duration backup generation.

**EKPC's Preliminary Perspectives on PJM's Conceptual Proposal**

EKPC shares the overarching concern that load growth is outpacing the addition of capacity resources as measured by their ELCC accreditation. Although EKPC believes that the marginal ELCC accreditation methodology overly discounts thermal generation resources' contribution to resource adequacy assurance, EKPC agrees that the additional pressure of load being connected to the system without sufficient capacity resources to supply it will create price pressure and volatility as well as reliability risk for all customers. However, EKPC is concerned that PJM has mis-diagnosed the problem, or has not adequately defined the problem. While generally supportive of exploring proposals to create priority pathways to connect generation and additional demand response flexibility, EKPC does not

think it is appropriate to limit such concepts to large load. Further, EKPC does not believe the proposed "Non-Capacity Backed Load" solution addresses what EKPC believes to be core problem, and is concerned that it likely would result in unintended reliability and cost impacts that exacerbate the resource adequacy concerns in the long-term.

**Non-Capacity Backed Load (NCBL)**

PJM presents the problem as transitional, assuming that in the future the generation supply (measured in accredited capacity terms) will catch up to the load additions. EKPC is concerned, however, that PJM's NCBL proposal will distort the very market signals that are needed to incent the needed generation additions to allow the supply portfolio to catch up with the growing load. Specifically, EKPC views the NCBL proposal as an effective cap on capacity prices. EKPC is concerned that investor confidence will be further eroded, especially after a two Delivery Year period of price caps. (EKPC's views on the 2 Delivery Year price caps were articulated in EKPC's protest in FERC Docket No. ER25-1357.) When will the capacity market be able reflect the actual cost to construct new capacity resources? There is a cost that someone will need to pay to construct new resources. EKPC is concerned that the NCBL proposal may convert a transitional problem into a long-term problem that undermines the very objective of making the PJM region attractive for economic development let alone attractive for the retention of existing load (and generation) that may have flexibility to relocate.

Understandably, PJM is considering what solutions it can offer to address its concerns while not thwarting economic development across the region. However, PJM's NCBL proposal is not fully within its jurisdictional authority. It appears as though PJM believes it does not have authority to disallow the connection of load to the grid. However, PJM has no jurisdictional authority to mandate a less firm service level for such loads. As discussed below, EKPC believes PJM is not without options within its authority to discipline the new entry to allow connected load to receive firm service. The states have jurisdiction over load connections and the adequacy of retail service. EKPC's experience in Kentucky is that the Kentucky Public Service Commission has the authority to ensure safe, adequate and reliable service. It would seem reasonable to assume that something more than ensuring the wires are in place to connect the load would be required to meet that standard – that adequate supply resources should be available to best ensure firm service delivery. Thus, it is EKPC's suggestion that PJM partner with the states to develop a collaborative solution utilizing their respective jurisdictional authorities to discipline the entry of new load to avoid the reliability concerns driving this CIFP.

PJM's NCBL proposal also fails to reinforce the mutual covenants Load Serving Entities (LSEs) make when they sign the Reliability Assurance Agreement. By signing the Reliability

Assurance Agreement, LSEs agree to pool their resources for the mutual benefit of the collective region. This assumes they have resources to pool in the first instance. Although the RAA was modified with the adoption of RPM to no longer impose penalties for LSEs not meeting their reliability obligation, LSEs must pay the price that results from the capacity auctions. Instead of a penalty incenting behavior, price is intended to incent behavior. To the extent LSEs are not hedged with owned and bilaterally contracted assets, they bear the consequence of the price exposure. For numerous years the clearing prices have been low and supplies available such that "leaning" on the market may have been considered rational. Today such leaning is no longer rational, although unhedged LSEs are not currently bearing the full consequence due to the imposed price cap. Instead of addressing the problem of LSEs leaning on the system, PJM's NCBL proposal creates additional incentives for LSEs to lean on the system by offering them a path to avoid paying capacity charges and connect large loads expeditiously.

FERC has the authority under the Federal Power Act to ensure that the markets it regulates produce just and reasonable price outcomes and achieve their reliability objective; placing obligations on those who participate in those markets is squarely within PJM's jurisdictional authority. Again, the solution is not to remove participants from the market while allowing the load to utilize the energy from capacity resources paid for by other loads. Rather, a solution option is to impose obligations on participants in the capacity market. To derive the resource adequacy benefits that the RAA seeks to deliver, it is reasonable to impose obligations/consequences on the LSE participants in the capacity market. While PJM may not have authority to deny load connections, it certainly has authority that can be used to discipline the connections. PJM has authority to place requirements and obligations on the participation in the market and establish expectations for LSEs who mutually agree to support the reliable service of the region per the Reliability Assurance Agreement.

Again, PJM seems to be viewing this situation as temporary and that in the long term the region would have all loads and generation included in the market and planned for as part of the integrated grid. However, it is unclear if we go down the NCBL path how we return to the integrated markets and planning construct that exists today. It is unclear how and when generation supplies catch up to the connected load, especially with the market intervention this proposal represents.

Additionally, collaboration with the states could result in an option that is an analog to how Transmission Owners and PJM handle the physical connection of large loads. Transmission Owners do not connect firm customers to their systems before they have studied the system and, if needed, built out the transmission to provide that service without adversely impacting other firm customers. Adequate supply accredited as capacity allows the

customer to take firm energy supply from the grid at all times. Using a process that coordinates PJM and state authorities, PJM would assess whether there is a reasonable expectation that there will be sufficient firm supply (i.e., capacity) available before allowing additional firm loads to connect to the system. This would be the capacity market equivalent of a capacity interconnection study. If PJM's analysis reveals there is insufficient firm energy (i.e., not enough capacity) then relevant state (or muni/coop) would require the LSE that wants to serve that load to build or contract for construction that capacity prior to connection. The LSE (large load) would not be able to opt out of capacity charges, but rather like any LSE that has self-supply, it would offer that supply into the market selling and buying back at the RPM price. Additionally, PJM refraining from price caps or mechanism that operate like price caps may encourage investors to build resources in response to appropriate price signals and result in sufficient supplies to support load connection such that PJM's planning analyses would reveal no concern, and there would be no need to require the LSE (large load) to secure capacity before it connects.

EKPC emphasizes that the solution to the resource adequacy concern PJM highlighted in initiating this CIFP is not to further encourage load to connect in an undisciplined manner nor to disrupt the capacity market price signals. Ultimately, in EKPC's view, the solution will require both PJM and the states to make changes focused on disciplining the large load connection to be commensurate with new supply additions in order to successfully, reliably navigate the future.

Last, EKPC notes that PJM's NCBL proposal is fraught with operational challenges, and potentially jurisdictional limitations. Some loads are connected at transmission level yet are served by EDCs who do not own and operate those transmission facilities. Who controls the "curtailment switch" to ensure the load is dropped? Will any entity other than the large load themselves control the "curtailment switch"? Additionally, it is not clear when PJM would trigger a "pre-emergency" curtailment. EKPC is concerned that load that has secured capacity resources will be subject to unreasonable load shed risk due to the challenges inherent in a complex curtailment protocol. Furthermore, EKPC is concerned about price pressure caused by load elevating prior to being curtailed. How far may prices escalate before NCBL load would be curtailed? Those prices would be experienced by other loads in addition to the NCBL load. Would price escalation be a factor in deciding whether to curtail the NCBL?

**Priority Interconnection Pathways**

PJM's proposal would create a priority interconnection pathway to for large loads to connect new generation. Although large loads are certainly exacerbating the resource adequacy challenge, any load that seeks to ensure it has sufficient capacity resources

available to supply its needs (via owned or bilaterally contracted resources) should be afforded access to any priority interconnection pathway.

**Additional Thoughts Beyond This CIFP**

EKPC offers one last thought that likely will be viewed as going beyond the scope of this CIFP. Should there be a desire for load to have different levels of firmness, a re-thinking of the RPM capacity market, LSE obligations, and host of other things would need to be evaluated and re-imagined in a more holistic fashion than what this CIFP is focused upon achieving. This re-thinking would require close coordination with the states as a host of things likely would need to change in the retail context as well.

**Conclusion**

There is no "silver bullet" squarely within PJM's authority to solve the challenges large load additions present; a comprehensive approach involving state collaboration merits consideration before adopting a narrow approach like the NCBL proposal which is fraught with unintended and long-lasting negative impacts to PJM capacity and energy markets and ultimately to the ability to ensure reliable service to all consumers in the PJM region.

**Comments to PJM on Critical Issue Fast Path Proposal regarding New Large Load Interconnections**

Sue Glatz and Abe Silverman submit these comments to the Critical Issue Fast Path (CIFP) on Large Load Additions on their behalf and not on behalf of any other entity. We can be reached at Sue@glatzconsulting.com and asilve39@jh.edu, respectively.

We respectfully request that PJM include discussions around the following design elements within the scope of the Critical Issue Fast Path (CIFP) process.

1. **The CIFP should apply any new capacity market rules to all new large load additions after a date-certain.**

We recommend that PJM apply any new rules coming out of this CIFP process applicable to all new Large Load Adjustments (LLAs) if the new load has not participated in a cleared Base Residual Auction (BRA) and to any new load requests PJM receives post-initiation of the CIFP process. This would mean that the new rules would apply to all LLAs scheduled to come online after the current cleared capacity market (i.e., after May 31, 2027) or that apply for load-side interconnection after the Board initiated the CIFP process on August 8, 2025, including those that may clear in future incremental auctions. Applying the new rules to all new LLAs after a date-certain avoids a "race to the courthouse" where new large loads time their connection timetables to maximize their capacity entitlements rather than their actual needs for service.

Treating each new LLA applicants the same way alleviates the difficult challenge of justifying why a particular large load should be allowed to take firm capacity-backed service, whereas another large load would be forced to take non-firm capacity service (assuming that is what comes out of this CIFP process). Applying the new rules comparably to all similarly situated large load additions that have neither cleared in a BRA nor applied for service post-initiation of the CIFP is thus a sensible and equitable approach.

Further, adopting a May 31, 2027, cutoff date ensures that PJM does not build up an even larger deficit in the forthcoming December capacity auction, which would be carried over into future BRAs. Even though the price collar applies in the 2027/2028 BRA, allowing additional load to clear in that market – and thus drive a substantial deficit in the supply-demand balance – could increase reliability risks and affordability concerns in future years.

2. **The CIFP should require *all* new Large Load Adjustment customers to enter as non-firm capacity-backed.**

We support PJM's proposal to provide new LLA customers a lesser level of capacity service. Categorizing new large load additions as non-firm for capacity purposes will ensure that prices in the BRA fluctuate appropriately to reflect organic load growth (which we define as total load growth, as forecasted independently by PJM, minus large load addition load growth) and increases/decreases in supply caused by generator retirements or additions, allowing the BRA to send appropriate price signals about efficient entry and exit, even as large load additions arrange for alternative sources of capacity. PJM's proposal, if adjusted as discussed below, would also limit the exposure of existing customers to higher costs associated with meeting new large load additions.

Bringing new large load additions on as NCBL or similar non-firm capacity status has several benefits, including:

- allowing PJM to continue to provide a high level of reliability to existing customers and prevent the situation where new large loads undermine reliability;

- providing new large loads a path to connect to the grid expeditiously and operate safely during the period where load growth is exceeding the grid's capacity to bring new supply online;

- avoiding the situation where PJM must place a moratorium on new large load additions or otherwise radically slow connection of new large load additions; and

- ensure that the higher capacity market prices resulting from the tightening supply-demand balance are appropriately assigned to the entities causing the higher prices – new large load additions.

Requiring all new LLAs to come in as non-firm capacity-backed dramatically simplifies PJM's proposal for clearing the existing BRA and avoids the complexities associated with PJM's proposal to allocate firm capacity on a pro-rata basis. This simplification is more in keeping with meeting the ambitious deadlines proposed by the Board.

3. **The CIFP should expressly address affordability concerns by requiring all new LLAs to take non-firm capacity service.**

We recommend that the CIPF explicitly consider whether it is just and reasonable to send new entry price signals to existing customers, when there is a specific class of new LLA

that is largely responsible for the substantial increase in prices we have seen over the past two auction cycles.

Resolving the challenge of shifting costs onto existing customers is of pressing importance. As Dr. Bowring noted in his June analysis, the growth of large load resources, primarily data centers, is responsible for approximately 75% of the increase in capacity prices experienced in the 2025/2026 and 2026/2027 Base Residual Auctions.[1] Without these new large loads, PJM capacity market prices would be rising above 2023/2024 and 2024/2025 levels but would remain below the $7.8 billion average cost of pool wide capacity over the past 11 years. Absent new large loads (primarily data centers), capacity market prices would be expected to increase steadily over time, due to organic load growth and retirement of existing generators, but would not signal an unrealizable need for new entry.

For example, PJM members, in concert with state policymakers, may conclude that the legacy PJM customers should not be exposed to new entry pricing that results solely from the addition of new large loads. Applying non-firm capacity status to all new loads would allow for careful consideration of whether new large loads could be considered a separate customer class, and if so, whether this new class should internalize the costs of the capacity supplies that are required to serve it.

4. **The CIFP should set forth clear criteria for how LLAs can procure firm capacity service and any "bring your own" generation resources.**

We recommend that PJM explicitly consider questions around how LLAs procure firm capacity in the future to provide commercial certainty to the burgeoning AI industry. Specifically, the CIFP rules should expressly consider:

- Rules around bilateral contracts.

Any bilateral contracts with LLAs are exclusively purchased from new or incremental sources of capacity. Otherwise, LLAs will be able to simply out-bid existing load for existing capacity, rendering the entire CIFP process moot.

- What constitutes "new or incremental" generation.

We would recommend defining new/incremental sources of capacity as those that are not currently in operation as of August 8, 2025, and have not committed to supply capacity in a cleared BRA period as of August 8, 2025. This would allow new or incremental generation currently in the interconnection queue or generation that may enter the market later to supply new LLA capacity needs.

[1] *See, e.g.*, June Analysis of Dr. Bowring.

- Performance and counting metrics.

In our view, the New LLAs should effectively be treated comparably to a Fixed Resource Requirement (FRR) utility, where LLAs would be responsible for meeting their capacity needs on terms comparable to FRR utilities, with the additional requirement that any capacity would be from new/incremental resources. This simplifies the process by utilizing existing requirements to ensure that locational deliverability, ELCC, and other requirements exist without a prolonged stakeholder process.

5. **PJM should establish a Non-Firm Capacity service that allows load to purchase supply at a discounted rate to reflect the non-firm nature.**

We recommend that PJM refer to the new service being discussed in the CIFP as "Non-Firm Capacity Backed Load," since that better reflects that PJM anticipates serving new LLA customers for the vast majority of hours in the year. Given that LLA customers are relying on PJM capacity, albeit on a non-firm basis, they should contribute to the costs of providing capacity and not be allowed to free-ride on the system. We recommend that the exact rate be determined in a future proceeding, based on the relative usage of the grid.

Cost-causation principles dictate that curtailable load that is otherwise connected to the grid and consuming energy should pay for the available grid capacity that it is using. The revenues paid for by the NCBL load customers would be remitted to all other customers who are paying for Capacity Performance (CP) Capacity Service.

6. **If the CIFP does not elect to assign non-firm capacity status to all LLAs, then it should select a point other than Point A on the VRR Curve.**

If PJM elects to simply assign non-firm status to new LLAs, we recommend picking a point other than Point A on the VRR curve. Applying non-firm capacity status to new loads at Point A still exposes existing customers to reduced reliability and higher capacity market results. As noted above, for this reason, we would recommend applying non-firm capacity status to all LLAs.

As an alternative, PJM should consider assigning non-firm capacity status to any new LLAs that would cause the market to increase above Point B on the VRR curve. This would allow for large loads to be allowed to clear the market during times when PJM is relatively flush with capacity, without substantially decreasing reliability for existing customers or allowing new data center load to drive capacity rates for existing customers to shortage or near-shortage levels.

7. **Applicability should depend on the size of the Locational Deliverability Area (LDAs) in which the new load is located.**

While we generally support the definition of LLAs as greater than 50 MW, we recommend that PJM separately address large loads entering relatively small LDAs. For example, PJM could apply the new rules to any LLA that is either: (a) equal to or greater than 50 MW peak load; or (b) that exceeds the zonal peak load by more than 10%.

8. **PJM should establish a Phase II CIFP process to create an alternative market structure to facilitate LLA procurement of new and incremental capacity services.**

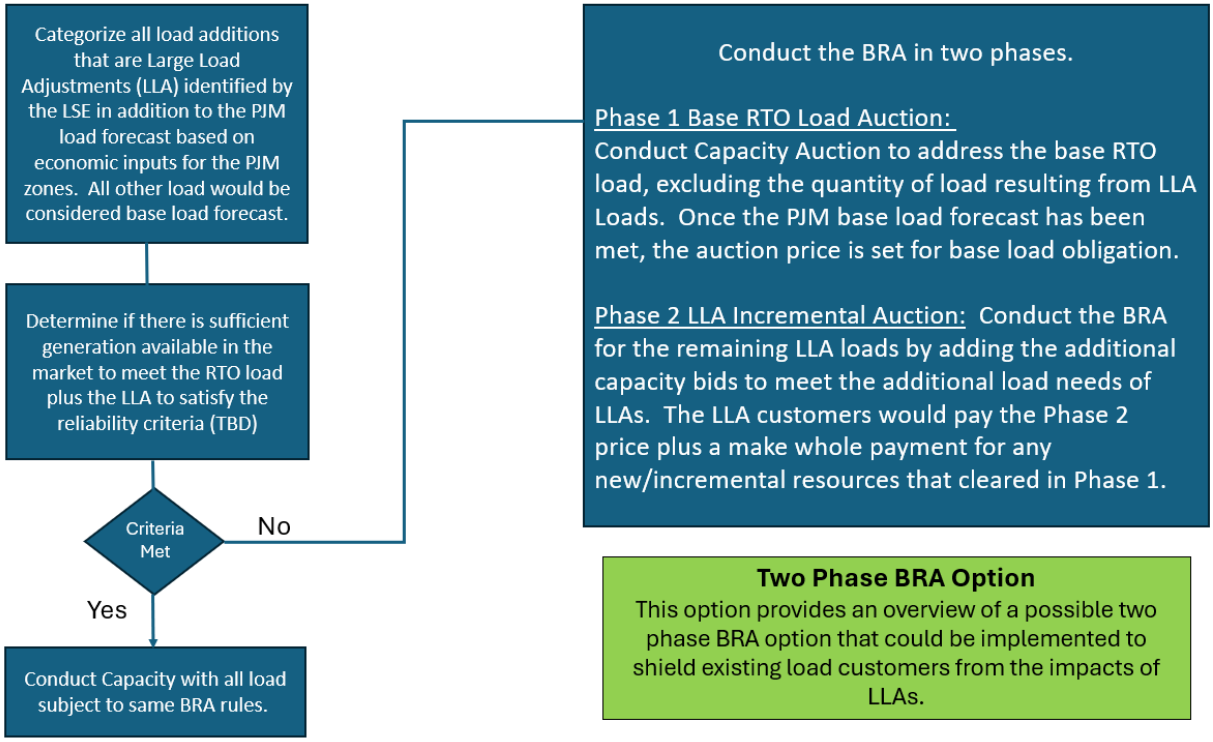
As part of a longer-term process, PJM should develop a market structure that would provide LLAs the ability to enter into new capacity arrangements with new or incremental supply. We propose two potential options for PJM to consider: one approach would create a second "phase" of the BRA that would allow LLAs to purchase new/incremental capacity that otherwise did not clear in the BRA; and second, a long-term contracting mechanism for new/incremental supply interested in serving LLAs for multiple years.

1. <u>Two-Phase BRA Option:</u>

PJM could create a second "phase" of each BRA focused on supplying the needs of LLAs. Under Phase I, PJM would clear the BRA based on non-LLA load and develop a capacity price that would apply to existing customers. This price would reflect the supply-demand balance excluding new LLA load. For Phase II, PJM would add the LLA load and re-clear the market, selecting from new/incremental supply that did not clear in Phase I.

LLA customers seeking firm capacity would be assigned the Phase II price, plus a make-whole payment for any new/incremental supply that cleared in Phase I, equal to the price difference between the Phase I and Phase II price. This make-whole payment ensures that all new/incremental sources of supply are treated on a comparable basis and receive the same clearing price. It also ensures that more efficient sources of new/incremental supply (i.e., those that offer capacity at the lowest rates) entrants are not penalized by receiving the lower Phase I price.

In year two and subsequently, any cleared supply and demand would enter the market as existing and would clear as normal in future BRAs.




2. Long-term Contracting Market for New LLA Customers:

A second option would be for PJM to create a long-term market for LLAs and suppliers of new/incremental capacity. Ideally, the tenor of both the buy and sell commitments would match the 10-year agreements typically seen in the transmission context, where a new data center or other LLA agrees to take transmission service at the requested level for a decade, or pay the difference. Participation would be voluntary for both buyers and sellers, with both sides offering price-quantity pairs, supported by appropriate collateral, which would be managed by PJM. At the end of the 10-year (or other period), both the load and generation would be included in future BRAs as existing. This ensures that new LLAs are entering the market without placing additional risk onto existing ratepayers, while LLAs get access to transparent pricing for new supply. Both sides avoid the complexity, lack of price transparency, and performance risk associated with bilateral contracts.

**9. PJM should work with state policymakers to address any jurisdictional concerns.**

While we believe PJM has the jurisdictional authority to require new LLAs to take non-firm capacity status, there are steps that PJM can take to alleviate any jurisdictional concerns. For starters, we agree that PJM has the underlying authority to address the reliability and rate issues associated with a supply-demand imbalance, and there is a clear and present danger that new load will exceed PJM's ability to attract new supply resources into the

market in the time that the load growth is anticipated. As NERC has noted, "[d]riven by electrification, hydrogen production, data centers, crypto mining, and other computational and energy-intensive methods such as artificial intelligence (AI), new loads can emerge and grow faster than generation and transmission can be built."[2]

However, to ease jurisdictional concerns, PJM should work with state policymakers to harmonize state-jurisdictional load addition policies and seek the concurrence of state regulators that its treatment of new LLAs is in accord with state law. PJM could even consider allowing states to elect whether to include new large load additions into the RPM capacity mix purchased on behalf of their LSEs. Either approach would allow states to appropriately balance the economic development opportunities associated with data centers against the economic impact on ratepayers and reliability concerns.

**10. PJM should include provisions to establish a standardized process for transparency of large load interconnections.**

While the interconnection of retail load customers is ultimately subject to state jurisdiction, PJM undoubtedly has the authority to establish a centralized process to collect information about new large loads seeking to connect to the PJM system. A public database would provide the necessary transparency and can serve as the foundation for many of the reforms put forth by PJM in its Conceptual Proposal. The Large Load Adjustments database should be developed in coordination with the load serving utilities that are interconnecting the loads and submitting the large load adjustments as part of the load forecast process.

**11. Accelerated interconnection is critical to providing LLAs a commercial path to firm capacity.**

Creating a path to accelerated interconnection for new sources of capacity is critical to making an NCBL-type approach commercially feasible to new large loads, which is important to states and utilities that wish to support investment in new large loads, including data centers. Indeed, developing a workable framework for deferring firm capacity for LLA customers will be substantially less challenging if there is a clear path for significantly accelerating the rate at which new generation is connected to the grid.

We commend PJM for considering new and innovative ways to accelerate the interconnection of new resources to the PJM grid, including the potential to utilize innovative interconnection techniques such as interim interconnection service. While several of these policies are technically offered by PJM today, the track record of PJM's

[2] ERO Reliability Risk Priorities Report, North American Electric Reliability Corporation, August 2023.

implementation has been mixed, with generation developers pointing to practical challenges utilizing PJM's existing tariff provisions. We would recommend working with stakeholders to identify and solve these practical considerations on an expedited basis. Additionally, we recommend that any changes be implemented in a technology-neutral manner to ensure that all types of generation are provided a reasonable opportunity to receive expedited interconnection service, whether as a network resource or as an energy-only resource.

**12. The CIFP should ensure that new LLAs have a feasible plan for receiving transmission service *before* being included in the BRA.**

As part of the CIFP process, we recommend that PJM address any potential mismatch between when a new LLA expects to receive transmission service and the delivery year in which it is allowed to take a position in the BRA. PJM should require that any new LLA being included in the BRA only if it can demonstrate that any needed reliability upgrades will be completed prior to the delivery year in question, on a comparable basis to new generation.

ENCHANTED ROCK™

1113 Vine St, Suite 101
Houston, TX 77002
713.429.4091
www.enchantedrock.com

August 27, 2025

Re: Comments on Critical Issue Fast Path – Large Load Additions

Michele Greening
Matt Connolly
PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Audubon, Pennsylvania 19403

Enchanted Rock is a Houston-based microgrid owner, operator, and developer with over 1 GW of fast-start, natural gas-fired, dispatchable capacity either commissioned or under construction across 370+ sites nationwide. Enchanted Rock is currently developing dispatchable natural gas-fired reciprocating engines for a Microsoft data center in northern California.

Enchanted Rock commends PJM for its proactive leadership in addressing the rapid increase in large load interconnections. We support the consideration of non-firm, 'as-available' service as a valuable option for reducing barriers to new load interconnections. PJM can encourage market innovations by thinking beyond traditional firm requirements and embracing options that allow for more flexible operations of the grid.

We believe that incrementally additional large loads can bring their own incrementally additional dispatchable capacity in a variety of configurations. Enchanted Rock is focused on the opportunity for loads to deploy technologies that can operate flexibly to serve long-duration backup power needs but also support grid services outside of emergencies. Such a strategy enables large loads to bolster reliability and mitigate the risk of stranded costs for ratepayers. This on-site dispatchable capacity can run as needed to allow new large loads to take 'as-available' network service by reducing or zeroing out load when transmission or supply capacity is low.

By way of example, in exchange for near-immediate load interconnection, an EDC/LSE may require a large load to curtail during the few critical hours when demand peaks and the risk of supply shortfalls is highest. When grid capacity is not available, the large load can follow the grid operator's instructions to dispatch their on-site natural gas engines and/or batteries and be self-reliant. Unlike diesel backup generators that require emergency declarations and air permit waivers, natural gas reciprocating engines and other clean alternatives to diesel can operate flexibly with non-emergency air permits to meet the grid's needs. This way, the new large load can function without interruption while preserving grid reliability. This increased optionality creates a more flexible and versatile grid, offering more levers to manage the balance of supply and demand.

According to Duke University's *"Rethinking Load Growth"* report, by allowing for curtailment or on-site generation, the US could support the increased power needs of AI data centers. In PJM, the authors estimate that 18 GWs of new load could be integrated into the grid with a minimal average annual load curtailment rate of just 0.5%. While a more robust analysis is required to uncover the specific scope and scale of the opportunity—an option for large loads to curtail via dispatch of on-site, flexible generation can unlock existing grid headroom.

ENCHANTED ROCK™

1113 Vine St, Suite 101
Houston, TX 77002
713.429.4091
www.enchantedrock.com

Enchanted Rock supports the direction of PJM's conceptual Non-Capacity Backed Load (NCBL) proposal with modifications. While NCBL is intended to be a temporary solution for shortages in resource adequacy, it should also be considered a temporary solution for transmission constraints so that it can unlock speed-to-market benefits. The current proposal would not help a project advance its grid connection more quickly if it triggered transmission expansions.

Modifications to enable flexibility in planning processes would differ from traditional demand response, which customers can only utilize *after* load interconnection. For large loads seeking faster load interconnections, their commitment and capability to curtail demand via on-site dispatchable generation should be valued and recognized in the transmission planning, load forecasting, and/or retail load integration processes *before and during* load interconnection.

Incrementally additional dispatchable capacity, paired with a new NCBL, could also be incentivized to participate in energy and ancillary service markets whenever the NCBL is operating on non-firm grid power. This configuration can provide the paired generation with more immediate access to grid participation until full deliverability can be assessed, and an ISA can be executed.

Thank you for the opportunity to comment.

Sincerely,

/s/
James Huang
Director, Wholesale Markets Policy
Enchanted Rock
jhuang@enchantedrock.com

Constellation

Constellation's Initial Feedback on
PJM's Conceptual Proposal for Large Load Additions
August 27, 2025

PJM should abandon its Non-Capacity Backed Load (NCBL) proposal, which would discriminatorily target new large loads for curtailment if they do not bring their own new capacity. PJM's proposal is unlawful and ill-conceived. It is remarkable that PJM's solution to new electric demand accompanying robust economic growth is to scare away those customers and infringe on the states' responsibility for managing the interconnection of new load and regulating retail sales. Rather than impede economic growth, PJM should use the Critical Issue Fast Path (CIFP) process to ensure its markets can serve all customers. The Trump Administration and many Governors in states served by PJM are united in meeting the national imperative of growing the data economy, deploying artificial intelligence and on-shoring manufacturing. Yet PJM's NCBL proposal will signal to each of these sectors that are so important to the national interest that PJM is closed for business.

PJM's proposed approach is rife with legal infirmities. They include: massive jurisdictional overreach by dictating the terms on which retail customers can receive retail electric service and eviscerating utilities' state-law obligation to serve new load; the discriminatory manner in which the proposal targets new load with unjustified burdens; and the discriminatory manner in which it prevents existing generation from serving this new load. Not only is the NCBL proposal unlawful, but it is also poor policy. PJM's stated goal is to preserve resource adequacy, but the proposal creates perverse incentives that will lead new resources to delay entry in order to be paired with a new large load and receive preferential interconnection treatment. The proposal is also premature. Several PJM states are in the midst of reforming their load interconnection rules, which may help to winnow speculative projects out of load forecasts, and PJM has not yet taken its own steps to rationalize the large load adjustments being incorporated into the load forecast.

Constellation agrees with PJM that maintaining resource adequacy is critically important. But the solution is to embrace, rather than undermine, the markets that have a long track record of sustaining resource adequacy, having successfully navigated major transitions in the supply stack while maintaining resource adequacy for the last twenty years. As directed by the Board, PJM should focus on market-based tools to address the issue. These include implementing immediate changes to its own load forecast process so that projections of demand driving the market reflect greater confidence about the amount of load that is actually coming and the volume of resources needed to serve it. Market-based reforms should also be developed, which include: (a) improving PJM's existing reliability backstop mechanism, either on a permanent or a temporary basis; (b) considering capacity market enhancements that allow for longer term capacity commitments in tight supply/demand conditions; (c) enhancing opportunities for demand response to more effectively participate in the reliability pricing model (RPM); (d) implementing energy market reforms, such as revising the operating reserve demand curves to appropriately value needed operating

reserves, so that the energy market is incenting new investment and taking pressure off the capacity market for revenue sufficiency; and (e) expediting the interconnection of capacity resources through capacity interconnection right (CIR) transfers and additional improvements to the interconnection process.

PJM should be sending the clear signal that the world's largest competitive electricity market is open for business and capable of driving the economic development critical to our nation's future, rather than telling the businesses seeking to invest billions of dollars in PJM states that, when it comes to electricity service, they are on their own because the market has failed. Imposing mandatory curtailment on new loads unless they bring their own supply is an unprecedented abandonment of the market and the basic principle that, when it comes to utility service, all customers have the same right to be served, and the pool's resources serve all customers. PJM has many other alternatives that it can, and should, consider.

## TOPIC 1: PJM's NCBL Proposal Is Fundamentally Flawed from a Legal and Economic Efficiency Perspective

PJM's unprecedented proposal suffers from numerous legal defects. First, and most fundamentally, it transgresses the basic division of authority in the Federal Power Act by impermissibly dictating the terms and conditions under which a new retail load may receive retail electric service. This is a task that Congress reserved for the states alone, and it is one the states have performed by imposing on utilities an obligation to serve all new load without any of PJM's proposed limitations. FERC lacks authority to approve a tariff that intrudes into this state domain and overrides state retail regulation. As the Supreme Court has held, "specify[ing] terms of sale at retail … is a job for the States alone."[1] Yet the NCBL proposal would prohibit certain new retail loads from receiving firm service unless those new loads supply their own sources of power.[2]

Second, the NCBL proposal unduly discriminates against certain large load customers and disregards cost causation principles. PJM's proposal would subject new AI data centers and other large loads to forced curtailment, which would occur prior to the curtailment of other network loads on PJM's system and even before use of PJM's demand response capacity resources. This would place the burden of ensuring resource adequacy and transmission security[3] for all loads receiving service squarely on one particular class of customers, shifting costs from the entire system to those disfavored customers. There is no defensible rationale

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[1] *FERC v. Elec. Power Supply Ass'n*, 577 U.S. 260, 280 (2016).

[2] In requiring interruption of service on an involuntary basis, the NCBL proposal is very different than Constellation's prior proposal to allow new loads to *elect* non-firm service if they choose.

[3] Despite requiring NCBL load to take and pay for the same firm network service as any other customer, PJM would nonetheless target NCBL load for curtailment not only in response to resource adequacy issues but also in response to transmission issues. Stu Bressler, et al., *Large Load Additions PJM Conceptual Proposal and Request for Member Feedback*, PJM Interconnection, L.L.C., 15 (Aug. 18, 2025), https://www.pjm.com/-/media/DotCom/committees-groups/cifp-lla/2025/20250818/20250818-item-03---pjm-conceptual-proposal-and-request-for-member-feedback---presentation.pdf (*PJM Conceptual Proposal*).

for this discriminatory treatment. A large load connected one year ago or ten years ago imposes the same resource adequacy burden on the system as a large load connecting tomorrow, and load growth from traditional "baseline" growth creates the same burden as well. It is no surprise, then, that FERC rejected a similar proposal to treat cryptocurrency load differently from other loads of similar size in *Basin Electric Power Cooperative*,[4] and the D.C. Circuit has squarely held that "the cost causation principle generally calls for giving the same treatment to new and continuing customers, based on a straightforward economic rationale."[5] Moreover, the arbitrary 50 MW threshold for NCBL treatment imposes a burden without regard to the location of the load or transmission topology. A large load will not necessarily have the same impact on reliability or the transmission system depending on where it is interconnected, and a blanket NCBL obligation disregards potential operational real-time solutions available to PJM.

Third, the NCBL proposal unduly discriminates against generators. As FERC has long recognized, RPM is designed both to incent new entry and retain existing needed resources by sending a price signal for the entire market that adequately values reliability. Yet the NCBL proposal explicitly disadvantages existing capacity because it cannot be used to "protect" new load from interruption, even though the retention of existing needed resources is a core goal of RPM and critical to maintaining reliability. That aspect of the proposal undervalues the reliability value provided by existing resources and discourages new entry except under a bilateral arrangement with large loads. From the system standpoint, a megawatt of accredited capacity provides the same resource adequacy benefit regardless of when it came online, and it should be eligible for the same treatment. To the extent PJM believes there is a need to increase supply in the near term, there are market-based ways to do so, as discussed further below, that do not depend upon segmenting the market so that new customers can only be served by new generation.

The NCBL proposal not only is unlawful but is also poor policy from an economic standpoint. First, it will only aggravate the resource adequacy problem it purportedly is trying to solve. The NCBL proposal would allow new load to receive firm service only if it contracts with a "new" resource, without regard to whether that resource would have entered the market anyway. The proposal would thus "claim credit" for new resources that, absent the program, would have entered anyway to serve the entire market. Yet under the NCBL proposal, these new resources have the perverse incentive to hold out for contracts with new load rather than offer their resources into the base residual auction (BRA). That is because these new resources will uniquely be able to provide new large load with the right to obtain firm service—and they will be able to command a higher price and/or longer term as a result. The NBCL proposal thus *discourages* new entry into the BRA—further undermining the market and exacerbating the resource adequacy problem.

[4] 188 FERC ¶ 61,132, at PP 94-99 (2024).
[5] *BNP Paribas Energy Trading GP v. FERC*, 743 F.3d 264, 268 (D.C. Cir. 2014).

Second, the NCBL proposal inefficiently allocates the burden of curtailment. It arbitrarily imposes that burden on new load, even if existing load could curtail at less cost, and imposes on new load the transaction costs of obtaining new supply that ultimately will support the entire system, even though new load is not the most efficient coordinator of new supply. An efficient solution would centralize the procurement of a curtailment service from the load that can provide that service most cost-effectively—as the BRA currently does in soliciting offers for demand response.

Third, the NCBL proposal would impose a de facto 20% reduction in the RPM price cap by forcing the removal of demand (via imposition of NCBL status) to the point where demand is set equal to 100% of the Reliability Requirement. This is inconsistent with the core design principles of RPM, blunts price signals for market-based entry when markets are tight, renders the administrative demand curve invalid for adequate procurement over time, and will ultimately harm resource adequacy.

Fourth, the NCBL proposal fails to reflect the marginal cost of NCBL curtailment in the energy market, in violation of FERC precedent as well as articulated goals of accurate price formation and shortage pricing. Artificially suppressing energy prices by not allowing them to reflect the marginal cost of serving load at times when supply is needed the most would limit the internal and external supply options available to PJM in real-time and undermine its ability to serve all load.

Fifth, the NCBL proposal would irrationally provide worse treatment to non-capacity backed load in PJM than it would to identical load in neighboring regional transmission organizations (RTOs), as PJM proposes to cut service to NCBL before it curtails exports. That is no way to encourage economic development in the PJM states. Rather, the likely outcome of the NBCL proposal is that, to the extent possible, new load will simply seek to locate in other areas of the country or even other countries, creating national security risks. Spurning economic development opportunities is not a winning strategy for PJM nor for the PJM states.

For these reasons, PJM should abandon the NCBL proposal altogether and instead consider alternative approaches to ensuring resource adequacy through efficient market signals while fairly serving all load that seeks to connect.

## TOPIC 2: PJM Should Implement Market-Based Improvements to Serve New Load Fairly While Also Ensuring Resource Adequacy

In its August 8, 2025 letter initiating the CIFP process, the PJM Board expressed a desire that PJM stakeholders "priorit[ize] existing resource adequacy tools . . . [and] encourage[d] stakeholders to prioritize competitive, market-based solutions."[6] The Board's emphasis on

[6] Letter from David E. Mills, Chair, PJM Board of Managers to PJM Stakeholders, 2 (Aug. 8, 2025), https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2025/20250808-pjm-board-letter-re-implementation-of-critical-issue-fast-path-process-for-large-load-additions.pdf.

market-based solutions is appropriate. As we have pointed out repeatedly,[7] while not perfect, PJM markets were established with a clear purpose (i.e., tapping into cost savings and innovation driven by competition, shifting risk from customers to generation owners, etc.), have historically been successful in achieving their purpose, and are continuing to achieve that purpose. We therefore urge that the sensible response to the current supply/demand concern is to improve existing resource adequacy tools and to develop new "competitive market-based solutions" as necessary. Competitive markets depend on a level playing field and predictable rules. Creating discriminatory carve-outs (like NCBL) instead erodes investor confidence and increases regulatory risk.

We elaborate below on mechanisms and options available to PJM and how they can be improved to achieve these purposes. These suggestions minimize discrimination as much as possible, are consistent with effective markets, and should be highest priority for PJM.[8]

1. Load forecast accuracy must be improved

Load forecasts have a significant impact on numerous inputs to PJM's capacity auction, such as the variable resource requirement (VRR) curve and, therefore, must be as accurate as possible. But recent analysis indicates that RTOs, including PJM, are predicting data center load growth *significantly* above what industry experts view to be achievable.[9] Against this backdrop, it is extremely unreasonable for PJM to consider a drastic new involuntary load shed mechanism without first having done all it can to ensure that its load forecast is accurate. PJM should take immediate action under its existing authority to improve its load forecasting methodology.

First, PJM should include in its forecasts only those large loads that have entered advanced development and made material financial commitments in the first three years of the load forecast. This will ensure that only load that is highly likely to materialize is counted, an improvement that is similar to improvements PJM made to its generator interconnection process to ensure that only generators that are highly likely to materialize are processed.[10] As mentioned above, such an effort is also consistent with efforts by many states to improve the tariffs applicable to large loads.

Second, PJM should align its large load ramp rate assumptions with commercial reality. PJM's current Load Adjustment Request Implementation states that, "[a]bsent a[n] EDC/LSE

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[7] *See, e.g.*, Pre-Technical Conference Comments of Constellation Energy Generation, LLC, Docket No. AD25-7, at 8-19 (May 16, 2025).

[8] PJM's problem statement and issue charge for the CIFP proposal it plans to present at the Stage 1 meeting should be sufficiently broad to cover these suggestions.

[9] *See, e.g.*, Appendix (attached hereto); *Uncertainty and Upward Bias Are Inherent in Data Center Electricity Demand Projections*, London Economics International LLC (July 7, 2025), https://www.selc.org/wp-content/uploads/2025/07/LEI-Data-Center-Final-Report-07072025-2.pdf.

[10] Doing so does not transgress state jurisdiction. PJM would be making adjustments to its *own* load forecasts, used in its own markets, based on information that load serving entities (LSEs) will provide to it. By contrast, the NCBL proposal regulates the terms on which new retail loads can receive retail service—a direct regulation of a domain Congress reserved to states.

provided ramp rate, PJM will use a default 3 year ramp rate."[11] Three years is an overly aggressive ramp rate that does not align with our experience of actual project development and, therefore, is likely overstating the forecast in the near term. PJM should use a more realistic and non-linear ramp rate when the electric distribution company/LSE has not provided a customer specific ramp rate.

Third, PJM should provide greater transparency regarding the large load information it relies on in developing its load forecast and on any assumptions it makes. This will enable others to better understand why PJM's forecast seems so inconsistent with that of other industry experts and whether additional improvements to load forecasting should be made.

Fourth, PJM should consider more frequent conduct of load studies. This would improve the responsiveness and accuracy of the load information provided to PJM.

PJM already has all the authority it needs to implement these changes. Given the close link between the load forecast and the need for and impact of any other changes under consideration as part of the CIFP, PJM should commit to implementing these load forecasting improvements with the 2026 load forecast.

2. PJM should ensure market signals incent investment as needed

PJM should do all it can to rely on market mechanisms that already exist or can be enhanced to incent more resource entry including through the RPM and the energy market. Enhancing long-term, market-based signals for new resource entry should be the preferred first action to alleviating any shortfall concern (especially where such mechanism is already in PJM's tariff) as compared to more drastic measures of curtailing load involuntarily or reliance on out-of-market new entry mechanisms.

RPM rules already contemplate that, if the RTO clearing price clears at the cap and thus is short of 99% of the reliability requirement for three consecutive years, PJM can contract directly for new capacity resources to resolve that shortfall under the reliability backstop mechanism.[12] PJM should adapt this already-existing mechanism to resolve any shortfall problem it foresees, either on a temporary or permanent basis. For example, PJM could enhance the reliability backstop mechanism (or implement a standalone mechanism) to allow new entrant capacity (which could be newly built, restarted existing, or uncleared existing) to offer multi-year terms at the price cap that could be cleared if the market reaches the cap. In its report on the VRR Curve developed as part of the current Periodic Review, the Brattle Group identified (at a high level) a multi-year contracting concept for improving the reliability

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[11] *Load Adjustment Request Implementation*, PJM Interconnection, L.L.C., 5 (July 1, 2025), https://www.pjm.com/-/media/DotCom/committees-groups/subcommittees/las/postings/load-adjustment-request-implementation.pdf.

[12] While this is a non-market solution, its non-market impact is deliberately limited by relying on the three-year triggering mechanism. The three-year shortfall trigger ignores shortfalls that are aberrations or the result of an over forecast (discussed in the prior section) which can be cleared up within three years.

backstop that also has potential as a solution if further developed.[13] Another option to consider would be to shorten the three-year trigger on the current backstop mechanism so that procurement is conducted more quickly. These concepts involve tradeoffs between enhanced resource adequacy assurance on one hand and discrimination in favor of new entry on the other, but they are all likely to be considerably less intrusive and market-damaging than PJM's NCBL proposal. These tradeoffs would need to be fully considered in developing such a solution, and Constellation believes that these approaches are far more balanced and productive than the NCBL proposal.

A second potentially fruitful avenue for enhancing resource adequacy through RPM is to enhance the ability of large loads to provide voluntary demand response. As discussed above, the involuntary aspect of NCBL is deeply flawed, but to the extent that large loads are willing to provide curtailment rights in exchange for market-based compensation, every effort should be made to accommodate that willingness. PJM already has made enabling voluntary demand flexibility a key objective of its CIFP process.[14] We agree with the objective for more voluntary, market-driven demand response, and PJM should follow through on it.

A third critical area for action is in the energy market, which provides the bulk of revenues for most resources and yet is not sending sufficiently accurate signals of when and where investment in new resources is needed. The need to improve the efficacy of long-term signals provided through locational marginal pricing is a known problem that has been ignored for too long, leading to an over-reliance on the capacity market and exacerbating resource adequacy concerns. PJM should include enhancement of energy market reserve products within the CIFP process. One option would be to revisit the operating reserve demand curves changes previously approved by FERC.[15] Alternatively, PJM could: create new or revise existing reserve products to align with current operational needs and addressing ramping needs, forecast uncertainty, and system risk; create rules for reserve products that allow for recovery of fuel arrangements; and develop new operating reserve demand curves that align with these needs and costs. The Reserve Certainty Senior Task Force has been working on these alternatives for two years but has failed to deliver any meaningful change. To ensure that this important issue does not continue to languish, PJM should include it as part of the CIFP process, even if on a different timeline for completion (such as the first quarter of 2026).

Finally, PJM should continue its efforts to ensure that new shovel-ready resources move expeditiously through the queue. PJM should promptly refile the recently rejected CIR

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[13] Kathleen Spees, et al., *Sixth Review of PJM's Variable Resource Requirement Curve*, The Brattle Group, 72-74 (Apr. 9, 2025), https://www.pjm.com/-/media/DotCom/committees-groups/committees/mic/2025/20250411-special/item-1-03-sixth-review-of-pjm-vrr-curve.pdf.
[14] *PJM Conceptual Proposal* at 5.
[15] *See, e.g., Midcontinent Indep. Sys. Operator, Inc.*, 191 FERC ¶ 61,019, at P 40 (2025) (FERC found that a Midcontinent Independent System Operator, Inc. (MISO) proposal to revise MISO's operating reserve demand curve "will give market participants efficient financial incentives to respond to scarcity and shortage conditions and act in ways that support system reliability").

transfer proposal to establish alternate pathways for expediting the replacement of capacity from deactivating resources. While the partnership with Tapestry to deploy an AI-enhanced tool to streamline PJM's planning process is a step in the right direction, PJM also should evaluate how Tapestry collaboration can be used more broadly than verifying documents and validating models. In doing so, PJM should look to other RTOs to understand best practices and adopt those that make sense, such as MISO's plans to deploy automation to materially reduce interconnection study timelines.

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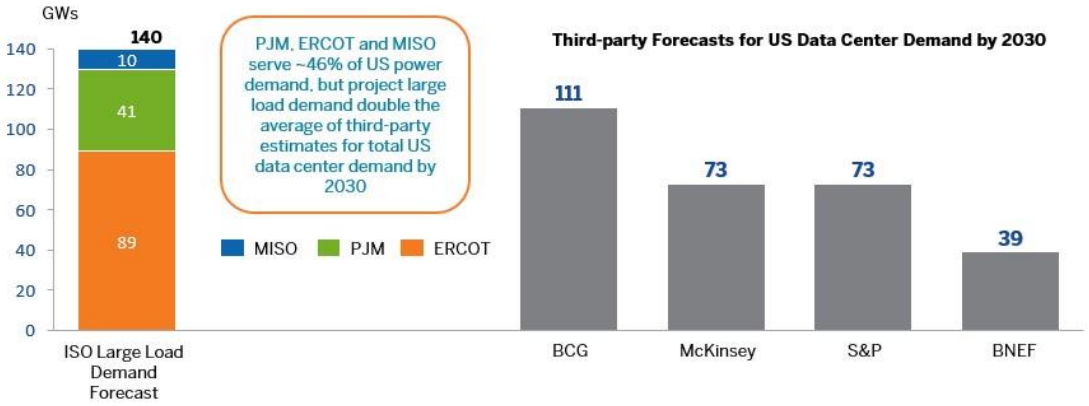
Constellation appreciates PJM's consideration of these comments.

APPENDIX

## Grid operators are projecting data center growth well above industry projections



The Delaware Public Service Commission thanks PJM for taking this critical step to address the resource adequacy concerns resulting from the extreme increases in demand associated with large loads, predominantly data centers. It is clear that absent proactive actions by PJM to mitigate these large loads, resource adequacy is very likely to be inadequate to avoid future curtailment of electric service and extremely high capacity prices.

While PJM's proposal is a good starting point from which to begin stakeholder discussions, we herein express some concerns regarding this proposal. Specifically, the proposal appears to use its demand forecast to determine allocations of non-voluntary Non-Capacity Backed Load (NCBL) service. Rather than requiring NCBL service based on an arbitrary forecast, all large loads under such a non-voluntary service requirement should be subject to service adjustments based on year to year increases in load, at a minimum. This aligns with the causes of future year to year resource adequacy shortages in the capacity market.

PJM also proposes to define large loads based on 50MWs of capacity. It will be important to more carefully define this category to avoid gaming by large load developers to avoid NCBL categorization. For example, developers could submit several 49.9MW service requests, or create multiple operating entities to achieve their development objectives. Similarly, transmission owners or EDCs could seek multiple developers to maximize large load development in their zones. Cumulative impacts to large load growth from data centers need to be captured in any final proposal.

We appreciate your acknowledgement of these high-level concerns to the draft proposal. These comments should not be interpreted as approval of the PJM draft proposal, and we look forward to continued inclusion in the CIFP process moving forward.

**Advanced Power comments on the CIFP – LLA Issue Charge.**

Thank you for the opportunity to offer comments on the CIFP for Large Load interconnection. These comments are offered by Advanced Power on behalf of PJM members Carroll County Energy LLC and South Field Energy LLC.

In regard to the challenges that PJM is facing in adding additional large loads into the system, PJM needs to remain focused on markets and allowing capacity markets to reflect the current market conditions and value that capacity provides to all load in the PJM footprint. Under these fundamentals, PJM should remain focused on market mechanisms that allow capacity suppliers and load to find capacity prices that reflect the value of capacity as a product and to ultimately allocate capacity to load that values energy delivery backed by capacity as premium product offered by PJM.

With those fundamentals in mind, the issue charge should have a significant focus on allocation of capacity to loads that most value capacity as a premium product. When market conditions exist where all the existing generation is cleared in the BRA, as seen in the previous 26/27 BRA, the focus of price discovery in the capacity market needs to be on the marginal capacity products setting price which is Demand Response (DR). There is a price for capacity that exists where certain loads are not willing to pay and therefore will offer and clear DR products. PJM should not resort to assigning NCBL until all auctions, including BRA and IA auctions, are run to allow participants to find a price that sufficient DR will clear to meet the reliability requirement.

Advanced Power proposes the below concepts of capacity markets to allow price discovery of capacity as a product during times of scarce generation resources relative to peak load on the system.

--If the BRA clears with insufficient capacity resources to meet the resource adequacy requirements and all must offer PJM generation clears the BRA, the BRA shall clear at a price on the VRR curve which may or may not be at the cap per the existing VRR curves. This is a fair price for must offer generation resources to receive based on the established process for setting the VRR curves which are just and reasonable values approved by FERC.

--After a BRA in which insufficient capacity is cleared to meet the reliability requirement, the next incremental auction will be the auction used to clear DR products that are willing to sell to bring the level of capacity up to the reliability requirement. DR offered in this incremental auction should be allowed to offer at prices well above the BRA price caps (suggest at least $1000/MW-day cap). Running incremental auctions in this fashion will allow PJM to find the price of the marginal DR capacity and therefore the true value of the capacity for load serviced (or price where load is willing to be curtailed). The incremental auctions will also have the advantage of using a load forecast that is updated with the most recent data addressing the issue of large load uncertainty.

--PJM should not resort to assigning NCBL to EDCs until the 3rd IA clears and it is confirmed that PJM has not been able acquire sufficient capacity resources to meet the reliability requirement.

--Based on the clearing price of the IAs, if the price clears above the price cap of the BRA, the next BRA VRR Curve should have the price cap set at the clearing price of the IA. This is a reasonable adjustment to BRA price caps as the cleared price will reflect actual capacity prices that loads are willing to pay to forgo capacity in a market that is short physical generation backed capacity resources.

**Comments on the PJM conceptual proposal**

--NCBL not be assigned to EDCs until all the incremental auctions have cleared to give DR time to respond to price signals and for load forecasts to be adjusted in the incremental auctions. DR is the marginal unit that sets price in a market that is short physical generation and running incremental auctions with updated load forecasts may resolve the shortfalls to the reliability requirement if expected load growth falls short of expectations. Therefore, NCBL should only be used after all market based solutions are exhausted.

Advanced Power
155 Federal Street, Floor 17
Boston, MA 02110 USA
tel. +1 617-456-2200 fax +1 617-456-2201

--NCBL should not participate in BRA and NCBL should not be used to adjust load demand in the BRA per the PJM proposal. The BRA should be able to clear in a shortage condition without procuring sufficient capacity for the resource requirement so that the BRA establishes an appropriate clearing price that reflects the scarcity of capacity and clear signal to build new generation or incentivize DR participation. Analysis performed in the quad review process shows that in the long run, outcomes where the resource adequacy requirement is not met is to be expected outcome. The markets should be allowed to clear on the VRR curve. NCBL should only be designated when a clear need is identified for NCBL after all the BRA and IA auctions have cleared in shortage conditions..

--NCBL status should be eligible from all PJM load, not just new large load additions. This prevents load discrimination and provides maximum opportunities for EDCs to identify cost sensitive load to participate as DR.

--Advanced Power supports a fast track path for interconnection for new generation that is contracted with large loads. Projects with contracts and high certainty of financing should be fast tracked through the interconnection process to bring physical generation onto the grid as fast as possible and reduce reliance on DR and NCBL products.

This concludes the set of comments from Advanced Power. Thank you again for the opportunity to provide input on this important PJM market issue.

Regards,

Ronald Paryl

Ronald Paryl

VP Markets and Risk Management

Advanced Power
155 Federal Street, Floor 17
Boston, MA 02110 USA
tel. +1 617-456-2200 fax +1 617-456-2201

**Vistra Feedback on CIFP – Large Load Additions (CIFP-LLA)**

Vistra appreciates the opportunity to provide feedback on both the scope of the CIFP-LLA Issue Charge and PJM's conceptual proposal as offered at the August 18 Pre-CIFP Workshop.

As an initial matter, we believe it's critical that we identify the right problem that needs to be solved, and we believe the problem identified in this Issue Charge should be reframed. Vistra believes that the combination of market response to capacity prices (as evidenced by the RRI responses) and voluntary agreements between new large loads and new generation will eventually address any physical capacity shortfall. In the interim period, PJM needs to address the possible consequences of generation not meeting the total capacity need. Any interim solution must be carefully tailored so that it does not significantly impact market price signals, thereby extending and exacerbating the very problem it seeks to address. At bottom, Vistra believes that the problem is that, in a short capacity environment, some LSEs continue to lean on the system to ensure reliability needs are met, rather than ensuring they have contracted for sufficient capacity to meet their needs. This reframing puts the onus on all LSEs fairly and equally, rather than selectively calling out certain load customers and more squarely addresses the problem before us.

Fundamentally, Vistra appreciates PJM's efforts to find a path forward for integrating large load while meeting potential impending resource adequacy challenges. Vistra is eager to be a partner in finding a workable solution that enables the integration of large loads, as it's critical for our nation's economy and our national security interests, while employing and enhancing the strength of PJM's markets. Proposals that speed the time for new generation to enter the market are welcome. But, on its face, we believe PJM's conceptual proposal suffers from fundamental infirmities that render it unsound and raise serious legal questions. Vistra highlights some of its high-level concerns below.

**Feedback on Issue Charge Scope**

***Accurately and realistically forecasting the potential load growth must be part of the CIFP-LLA's scope.***

In addition to the topics listed in the PJM Board's August 8 letter initiating the CIFP process, Vistra believes that load forecast methodology must be included in the scope of the CIFP-LLA's Issue Charge. The Board's August 8 letter cites PJM's 2025 long-term load forecast showing peak load growth of 32 GW from 2024 to 2030. It attributes approximately 30 GW of this growth to data centers. However, other load forecast projections are more conservative.[1] Major market reforms should be supported by a load forecast with sufficient

[1] For example, Enverus Intelligence Research (EIR) opines that PJM's load forecast "are drastically higher for both annual energy and peak load, driven by their inflated expectations for data center expansion." Based on this assessment, EIR estimates a PJM 2030 peak load of between approximately 150-155 GW compared to

transparency and analytic rigor to ensure that any reform is appropriately responsive to the magnitude of the problem. The predicted level of incoming load is the necessary driving force behind these discussions, and thus every effort should be pursued to make sure we get that right.

For this reason, Vistra, along with several other parties across the PJM market spectrum, requested that load forecast methodology be included in the CIFP-LLA scope of work at the August 18 workshop. Siloing this work in the Load Analysis Subcommittee is inconsistent with the holistic goals of the CIFP process—broad impact to markets or significant reliability issues—and the purported criticality and high visibility of the challenge that necessitated initiating this CIFP workstream.

For these reasons, it is imperative that load forecast methodology be included in the scope of the CIFP-LLA Issue Charge. Vistra believes the PJM load forecast methodology should be calibrated against a top-down load forecast based on a reasonable estimate of US data center growth allocated to regions based on an assumption that each region maintains it market share of data center projects.[2] Determining the size, timing, and likelihood of the large load addition challenge is a critical part of assessing both the potential mechanisms needed as well as any triggers for those mechanisms. This is especially important when the contemplated solutions may include changes that will have significant impact on PJM's capacity and energy markets, price formation, and the ability of the markets to send the investment signals necessary to ensure long-term resource adequacy and market stability.

**Feedback on PJM Conceptual Proposal**

Vistra recognizes the interim challenge raised by load growth driven by large load additions and appreciates PJM putting forward its conceptual proposal. To be clear, Vistra believes that in a properly functioning market which sends timely and sufficient investment signals to build new generation, load growth would be adequately addressed by an appropriate response from market participants. Vistra acknowledges that in the current situation it may be prudent to consider how to maintain resource adequacy as PJM integrates new large load additions. However, Vistra is concerned that several of the ideas discussed in PJM's August 18 presentation would have significant, negative impact on PJM's markets and/or would not meet either the Federal Power Act's non-discriminatory or just and reasonable standards.

PJM's forecasted peak load of north of 180 GW. Similarly, London Economics on behalf of the Southern Environmental Law Center highlights the likelihood that data center load forecasts will overstate actual load growth (see London Economics Inc., "Uncertainty and Upward Bias are Inherent in Data Center Electricity Demand Projections," July 7, 2025 available at https://www.selc.org/wp-content/uploads/2025/07/LEI-Data-Center-Final-Report-07072025-2.pdf).

[2] Vistra suggests PJM use a variety of market share measures, including share of existing data centers, share of data centers under construction, and share of announced data centers.

***PJM should continue to support existing opportunities to procure capacity.***

Vistra appreciates and supports PJM's recognition of the existing options for supply to procure capacity including the use of the RPM market, DR, and bilateral contracts for both existing and new generation as well as financial hedges. Each of these are important tools to secure necessary capacity both for individual large loads as well as LSEs and ensure system wide resource adequacy. Because proactive and dynamic use of all of these tools will lead to the most cost-effective procurement of capacity for load, it is important that any proposal that comes from the CIFP-LLA not favor or undermine any of these options. Vistra is concerned that among the unintended consequences of PJM's conceptual proposal is the undermining of the market for bilateral contracts, especially for existing generation, as well as the potential degradation of the price signals in PJM's energy and capacity markets. Preservation of all bilateral contracting options and market signals is necessary to ensure long-term resource adequacy.

***NCBL proposal is facially discriminatory against both generation and load.***

As currently contemplated, PJM's proposed use of NCBL appears on its face to be unduly discriminatory, and thus in violation of the FPA. As a gating item, any proposal must be non-discriminatory, and this proposal is just the opposite as it currently stands. By only making new, large load additions eligible for/subject to NCBL the conceptual proposal discriminates against both load and generation. PJM has also indicated that should insufficient new large load voluntarily agree to be NCBL, PJM would assign NCBL status to new large loads involuntarily. However, PJM has yet to articulate why new load customers should be treated differently than existing load. The PJM Board's letter initiating the CIFP process cites resource adequacy concerns; but that does not justify selectively targeting new large load. Longstanding Commission cost causation principles require treating new and existing customers the same.[3] Any resource adequacy shortfall will be driven by a combination of both the existing load on the system—large and small—as well as new load—large and small. Because the goal of the CIFP-LLA should be, as the Board articulated, "to ensure the reliability and security of the bulk electric power system and to serve *all* load that is connected to the system"[4] any solution must accommodate all load in a voluntary and non-

[3] See, *BNP Paribas Energy Trading GP v. FERC*, 743 F.3d 264, 268 (D.C. Cir. 2014) ("First, the cost causation principle generally calls for giving the same treatment to new and continuing customers, based on a straightforward economic rationale. Where "all customers cause the incurrence of the costs …, whether by adding or merely continuing their usage," *Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC,* 475 F.3d 1277, 1285 (D.C.Cir.2007); *Town of Norwood v. FERC,* 962 F.2d 20, 24 n. 1 (D.C.Cir.1992), assignment of the costs to all customers (both continuing and new) forces each set "to weigh the marginal benefits of the capacity to them against the marginal costs they impose on society by continuing to make demands." 1 Alfred Kahn, *The Economics of Regulation* 140 (1988); *Southeastern Michigan Gas Co. v. FERC,* 133 F.3d 34, 41 (D.C.Cir.1998) (citing Kahn); cf. *PJM Interconnection, LLC,* 128 FERC ¶ 61,157 at P 102 (2009) (recognizing, on the supply side, equivalence between new entrants and existing suppliers)").

[4] PJM Board Letter Regarding Implementation of Critical Issue Fast Path Process for Large Load Additions, https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2025/20250808-pjm-

discriminatory fashion. Inherent in this proposal is the notion that existing load somehow has an entitlement to existing capacity, regardless of whether or not that load has contracted for that capacity. There is no basis for finding such an entitlement. Thus, prioritizing existing loads' rights to available capacity over new loads' right to such capacity is facially discriminatory.

If PJM's proposal prevents existing generation from contracting with new load, the proposal is similarly discriminatory to existing generation. PJM's conceptual proposal states that "LLA participating in BYOG and DR are excluded from Non-Capacity-Backed Load obligation" up to the accredited quantity of participating BYOG or DR. PJM should clarify that this exemption includes loads that enter bilateral contracts with *either* existing or new generation. Failure to do so will undermine the opportunities for bilateral contracts with existing generation and could represent an unjustified taking with respect to the ability for both generation and load to enter into contracts. PJM offers no basis for why this proposal can lawfully distinguish between new and existing generation. Such a distinguishing provision would likely be indefensible at FERC and would undermine critical supply tools that PJM has stated that it supports and believes are necessary to cost effectively meet any resource adequacy challenges.

To put a finer point on this, PJM has stated that this proposal does not foreclose existing capacity from contracting with new load. Based on this, Vistra assumes that PJM's intent for its proposal must be that existing generation would be eligible to contract with new load and exempt that load from being designated as NCBL. To the extent PJM would not allow a new large load with a bilateral contract with existing capacity to avoid a mandatory NCBL designation, Vistra is concerned that PJM's proposal's has significant legal deficiencies and detrimental unintended consequences. By preventing new load from reflecting its procurement of capacity under a contract with existing generation, PJM is essentially abrogating such agreement with no clear legal basis or authority. Existing generation will not, of course, contract with new large load for energy and capacity, if the value of that capacity is zero.

The unintended consequences of diminishing the value of contracts between existing generation and new large loads are significant. First, existing generation has opportunities to sell outside of PJM especially as external markets face capacity shortages. PJM should want to make bilateral arrangements within PJM as attractive as possible to avoid chasing existing generation into other markets. Second, the uncertainty (discussed below) associated with a bilateral capacity agreement between existing generation and new large load could inadvertently take some existing generation out of the market altogether. For instance, if a 1,000 MW existing generation resource has a bilateral agreement with a 1,000 MW new large load that gets a 400 MW NCBL designation, 400 MW of existing generation could be stranded and unavailable to other market participants or to the BRA.

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board-letter-re-implementation-of-critical-issue-fast-path-process-for-large-load-additions.pdf (Aug. 8, 2025) (emphasis added).

***PJM needs to clarify NCBL interaction with the RPM auctions.***

While recognizing that the current proposal is conceptual in nature, significant additional detail needs to be added regarding how NCBL will interact with the existing RPM market structure. For example, it is unclear at what stage in the pre-auction or auction process a shortage will be identified. Does PJM intend to essentially run an auction twice, once for quantity, to determine if the system is short capacity, thus triggering NCBL and once for price? If so, it's unclear how such design would be consistent with FERC policy and precedent. Similarly, how, and when, does PJM intend to determine whether voluntary NCBL would suffice, or if mandatory NCBL is needed? These are just a few of the many questions on the mechanics of the design that must be addressed and, as noted above, the uncertainty created by the answers to these questions will determine the potential for some unintended consequences. This uncertainty and lack of transparency raises significant risk for both load and supply market participants. Those offering supply in the market may be unable to fully assess market conditions prior to submitting their bids, thus undermining their ability to submit cost effective bids. A lack of market certainty will also temper the ability for load and supply to enter into bilateral contracts, an avenue of resource procurement PJM states that it would like market participants to use.

PJM also indicates that entities could execute arrangements to avoid NCBL until the start of the delivery year. It is unclear how any difference in supply or load between the BRA and the start of the delivery year would be balanced. While the existing Incremental Auctions should be the venue for any "true up" they will face the same uncertainty and lack of transparency issues as a BRA conducted under the conceptual proposal. The August 8 PJM Board letter encourages PJM and stakeholders to "prioritize competitive, market-based solutions," however the initial design for the conceptual proposal would undermine the transparency and competitiveness of the RPM auctions.

***NCBL deployment may result in artificial price suppression.***

Under the conceptual proposal, NCBL would be deployed prior to Pre-Emergency Load Management Reductions. This choice of operational order raises several issues. Participants in Pre-Emergency Load Management participate in the capacity market and receive a payment for their willingness to curtail load. Curtailing this voluntary load after a potentially involuntary load curtailment appears inapposite to the purpose of DR and may undercut the value of that product. Additionally, in recent operations PJM has been proactive in its deployment of Pre-Emergency Load Management, often well ahead of traditional price signals. While Vistra understands PJM's desire to stay ahead of any reserve shortage, curtailing NCBL before deployment of DR could severely mute necessary energy price signals. Assuming that PJM's operational approach NCBL would be similar to that of its current approach to Pre-Emergency Load Management, PJM must consider reforms to protect existing energy price signals.

The conceptual proposal raises the question of whether NCBL should be a permanent feature of the PJM market design. Given that the current market scarcity is likely to be resolved in the next 5-7 years, Vistra believes that any market changes should be temporary in nature, and focused on the near-term challenge, without impacting the long-term health of the PJM markets. As noted above, proactive deployment of NCBL will likely have an impact on energy market signals, reducing the availability of reserves on the system at a time when PJM has demonstrated the need for reserves to maintain reliability. While the conceptual proposal's intention may be for NCBL to be temporary, the impact on the markets could delay the needed investment to address any supply crunch. PJM must focus on these potential market distortions to ensure that any reforms it pursues will not inhibit the market from sending the price signals needed to facilitate the region's ability to meet its reliability needs.

In conclusion, Vistra is sympathetic to the concerns PJM seeks to address through this CIFP process and believes thoughtful reforms can ensure the reliable integration of new large loads that promise substantial economic development opportunities for PJM states and keep the US a leader in AI infrastructure and technology. Vistra suggests PJM expand the scope of the effort to refine the load forecast to provide a more accurate measure of the challenge ahead. Vistra further suggests that PJM clarify that bilateral capacity contracts between existing generation and any load (new or existing) will continue to provide the full capacity to the contracting load. At a minimum, PJM's next iteration of its proposal must address the discrimination and price distortion concerns raised herein. Finally, Vistra believes that PJM must refocus the effort away from discriminatory mandatory requirements on new large loads and instead enhance incentives for load serving entities to bilaterally contract to meet their full capacity requirements.

State of New Jersey
DIVISION OF RATE COUNSEL
140 EAST FRONT STREET, 4TH FL.
P.O. BOX 003
TRENTON, NEW JERSEY 08625

PHIL MURPHY
*Governor*

TAHESHA L. WAY
*Lt. Governor*

BRIAN O. LIPMAN
*Director*

August 27, 2025

**Via Electronic Mail**
PJM Board of Managers
PJM Interconnection, LLC
2750 Monroe Blvd.
Audubon, PA 19403
Michele.Greening@pjm.com
Matthew.Connolly@pjm.com

**Re: Stakeholder Feedback on Critical Issue Fast Path Process for Large Load Additions (CIFP-LLA) Issue Charge and Conceptual Proposal**

Dear Chair Mills and PJM Board of Managers:

The New Jersey Division of Rate Counsel ("Rate Counsel") writes to provide our comments on the Critical Issue Fast Path ("CIFP") accelerated stakeholder process mechanism to pursue stakeholder consensus that would inform a PJM Board decision on a potential FERC filing regarding Resource Adequacy targeted for December 2025. Rate Counsel appreciates the Board's willingness to solicit broad stakeholder input on this complex and pressing matter.

First and foremost, Rate Counsel urges the Board to consider customer rates as one of the core pillars of the CIFP. In a letter from the PJM Board to Stakeholders, dated August 8, 2025, the Board outlined the following focus areas: Resource Adequacy; Reliability Criteria; Interconnection Rules; Coordination; and Timing. Similarly, Slide 5 of PJM's August 18, 2025 PowerPoint ("Large Load Additions PJM Conceptual Framework and Request for Member Feedback") lists three objectives of the CIFP and states that PJM is seeking feedback on those objectives. Those objectives are:

- Create ways for new large loads to connect as rapidly as possible and at the same time, determine a plan for how reliability is maintained in case there is a resource adequacy shortfall.
- Create incentives and operational pathways for incremental loads planning to connect to the system to more directly support rapid build out of new supply to serve their needs.
- Enable more efficient utilization of the grid by increasing demand flexibility.

Notably, none of those objectives specifically includes affordability of consumer rates.

Rate Counsel submits that consumer rates should be specifically listed as a primary focus area in the Issue Charge. The long-term load forecast of an additional 32 GW of load by 2030 without a correspondingly quick interconnection of supply will drastically increase consumer rates, unless an alternative like Bring Your Own Generation ("BYOG") is implemented. Since the future affordability of consumer rates depends, in large part, on the outcome of this CIFP, it is inherent that rates be part of the solution. Failure to incorporate affordable rates into any solution proffered through the CIFP shifts the risk caused by new data centers on to the existing incumbent customer base without any analogous benefit. Moreover, an unaffordable solution is nothing more than an academic exercise. The customers in PJM are already suffering and cannot shoulder unlimited rate hikes. Customers are not an unlimited source of funding, and that fact must be considered when looking for a solution to these critical issues.

Rate Counsel looks forward to a robust stakeholder process and thanks the Board for the opportunity to provide comments.

Respectfully submitted,

BRIAN O. LIPMAN, DIRECTOR
DIVISION OF RATE COUNSEL

By: /s/ *Emily Lam*
Emily Lam, Esq.
Assistant Deputy Rate Counsel

C: Brian Lipman, Esq.
T. David Wand, Esq.
Robert Glover, Esq.

# ELECTRICITY CUSTOMER ALLIANCE

To: PJM Interconnection, L.L.C. – Michelle Greening and Matt Connolly
From: Jeff Dennis, Executive Director – Electricity Customer Alliance
Re: Comments on Conceptual Proposals Presented at August 18, 2025 Pre-CIFP Workshop on Large Load Additions
Date: August 27, 2025

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The Electricity Customer Alliance (ECA) appreciates this opportunity to comment on PJM's conceptual proposal for addressing the resource adequacy impacts of new large load additions in the PJM region. We also commend the Board of Managers for taking the important step of establishing this process to address the challenges and opportunities of emerging large loads.

ECA is a growing national coalition dedicated to advancing customer-centric solutions that modernize the grid, support economic growth and the development of digital infrastructure and advanced manufacturing, and keep electricity affordable and reliable for all users. Members and participants in ECA include a wide range of technology, commercial, industrial, and residential energy consumers in PJM and beyond. ECA works to elevate customer perspectives and align customer segments to identify and advance common ground approaches to the challenges of load growth, grid expansion and modernization, electricity market governance and accountability, and rising consumer electricity bills.

While ECA appreciates PJM's focused attention on addressing large load additions, we are concerned that the conceptual proposals presented, which center around the concept of a new Non-Capacity Backed Load (NCBL) service, require significant additional stakeholder education and design and are not yet well-defined enough to move forward as a package on the aggressive timetable required for the May 2026 Base Residual Auction for the 2028-2029 delivery year. As PJM heard from several stakeholders, the conceptual proposals raise significant questions about the incentives that exist for large loads to voluntarily accept curtailment risk, who decides what load is subject to mandatory curtailment in the event NCBL becomes mandatory, and what loads are considered "critical" and not subject to NCBL treatment. Moreover, no information has been provided on the treatment of existing loads and whether NCBL will only apply to loads that come in service starting in the 2028-2029 Delivery Year, or on technical specifications for loads treated as NCBL such as ride through and voltage specifications. Further, it is unclear how long curtailment risks will last and what notification periods will apply. All of this information would need to become available immediately for large load customers of all types to understand the full impact and risk to their businesses, and for other customers to understand the impacts on them.

In addition, ECA is concerned that the NCBL concept includes no defined pathway for large loads that choose voluntarily, or are forced into, this service option to receive firm service in the future. Without such a pathway, large loads will have little incentive to voluntarily choose to participate in NCBL, forcing PJM and Electric Distribution Companies (EDCs) into the difficult task of assigning mandatory curtailments. Further, removing NCBL-designated loads from the Reliability Pricing Model (RPM), but

continuing to include them in the Regional Transmission Expansion Planning (RTEP) process, results in the potential for serious planning inefficiencies and even stranded costs.

All customers would benefit from PJM developing short-term solutions now that address the immediate price and reliability impacts of emerging large loads and that provide new large loads with an opportunity to bring their own power supply or utilize other flexible arrangements to meet their need to obtain power quickly. In the long-term, PJM must develop a clearly-defined, long-term pathway for integrating large loads that includes robust system planning, transparent methods for allocating costs caused by new large loads to them, and appropriate tools to capture and value large load flexibility and minimize contributions to peak demands. Without such a pathway, large load customers will not be able to make informed choices about how to address near-term power supply needs or provide flexibility to the system. Engaging in robust system planning and ensuring that tools to capture flexibility (like demand response products) are well-suited to the operating characteristics of these new large loads will help address long-term cost challenges by limiting the extent to which these loads increase peak and and drive associated infrastructure investment, reducing costs for all customers by spreading existing system costs over more units of demand.

For these reasons, ECA strongly recommends that PJM break the task given to it by the Board into phases. Immediate work should focus on steps that can be taken quickly to stabilize prices in the 2028-2029 RPM Base Residual Auction (BRA) (to be held in May 2026), including:

- Rationalizing how large load additions are incorporated into the load forecast used in the BRA. This could include requiring that large load additions be backed by indicia of commercial viability (such as financial commitments) to reduce the inclusion of speculative new loads, working with Electric Distribution Companies (EDCs) to guard against double counting of potential new loads, and exploring whether large load additions that expect to phase-in their full requirements over their initial years of operation (which can be common) can reflect that phase-in in the amount of demand placed in the BRA (rather than placing the entire load in the forecast in the first year); and
- Facilitating the ability of data centers, manufacturers, and other large loads to bring their own generation supply and remove the associated demand from the BRA. This option is critical to meeting the shared state economic development and national security interests in supporting rapid AI and manufacturing growth. While PJM states that this will be an option, it has not provided any details on how this option would work, making it difficult for large load customers to support this option or engage in the discussion. We urge PJM to prioritize providing additional details on bring your own generation supply opportunities at the September 2 Pre-CIFP Workshop and move quickly to develop any needed tariff language for filing with FERC.

ECA agrees with PJM that its demand response products should be comprehensively revisited to ensure that large loads can use them to capture flexibility and reduce overall system costs for all customers. However, as PJM noted on August 18th, to be effective these products must accommodate and recognize

the operating characteristics of various data center types as well as other emerging large loads like advanced manufacturing, hydrogen production, crypto currency, and more. PJM did not provide any design details or assumptions about data center operating characteristics; if it has such details, they should be provided in the next meeting. In general, ECA observes that additional stakeholder education regarding the operating characteristics and profiles of these large loads is needed to design solutions that reflect operational realities. For this reason, we recommend PJM take additional time to review demand response products. ECA is happy to work with PJM to provide stakeholder education.

Once the work noted above is completed, PJM should turn its attention to the more detailed stakeholder education and design work needed to build a transparent, non-discriminatory, and clearly defined long-term pathway for integrating large load customers of all kinds (including not only data centers but also advanced manufacturing and other emerging loads) in the PJM system. We reiterate that long-term paths to integration of these large loads in the system should focus on ensuring reliability and maximizing the potential for reducing consumer bills by spreading system costs over a wider set of customers.

This phased approach will meet the goals of the Board of Managers to address resource adequacy concerns both now and in the long-term while ensuring that any market design and market rule changes are well thought out and stakeholders have more opportunity for input. It will also put PJM on a path to comprehensively preparing the region for the challenges and opportunities of large load growth. ECA looks forward to working with PJM on these efforts going forward.

LS Power Comments on PJM's CIFP and proposed NCBL Concept

## I. Introduction and Executive Summary

LS Power acknowledges that PJM Interconnection, L.L.C.'s (PJM) concern that significant expected load growth—particularly from high duty-cycle data centers—poses questions about future resource adequacy and reliability. We also acknowledge that there are real issues that market participants grapple with and the capacity market must incorporate: interconnection and permitting timelines are long, retirements and derates add uncertainty, and Large Load Additions (LLAs) are material. We agree that PJM should enable new loads to connect rapidly while maintaining reliability and market integrity.

That said, PJM's Non-Capacity-Backed Load (NCBL) proposal,[1] appears to be a premature, out-of-market reaction to the anticipation of a challenge that has not yet been adequately defined. That is the wrong approach if PJM hopes to maintain competitive markets and rely on those markets to maintain long-term reliability. By contrast, our recommendations keep RPM anchored to an objective reliability target, explicitly procure additional capacity to cover uncertainty, convert load flexibility into a voluntary, standardized product with enforceable performance, and reserve targeted, time-limited emergency tools strictly as a last resort.

## II. The Problem to Solve—State it plainly and fix it precisely

PJM has turned its CIFP process upside down with the introduction of the NCBL concept prior to even issuing a problem statement. The Board letter which initiated the CIFP process highlighted the large quantities of both LLAs and supply resources that have cleared the interconnection queue. Clearly there is concern that load will grow faster than supply but neither PJM, nor the board's letter explicitly detail the problem PJM is attempting to solve with the NCBL proposal. Indeed, per Manual 34, Section 8.6.4, Step 1 of the CIFP process is "[f]or new CIFP issues, PJM will create a problem statement and Issue Charge as informational to stakeholders and to set scope and deliverables. No MC approval vote is required." In this case, however, PJM is leading with a solution before it sufficiently defines the problem it is seeking to address.

It is clear that from both a process and efficacy standpoint PJM must publish a concise problem statement: the magnitude, timing, and location of projected shortfalls; how LLAs contribute relative to baseline growth; and the alternatives considered with indicative price and reliability impacts. Once stakeholders are fully educated about the issues that PJM is seeking to address, the CIFP process can run more efficiently. Step 3 of the process is when "PJM presents simulation results, review[s] studies performed, and reviews forecasted market impacts as appropriate." Without a clear problem definition, there is no way to simulate solution results to determine what is preferable. A transparent, zone-level

[1] The NCBL proposal would allow qualifying large customers to take service that is planned for in the Regional Transmission Expansion Plan (RTEP) and Network Service Peak Load (NSPL) processes but is excluded from the Reliability Pricing Model (RPM) capacity obligation; when NCBL is allocated, the Reliability Requirement (RR) and the Variable Resource Requirement (VRR) demand curve are adjusted downward to match available supply. Operationally, NCBL is paired with earlier, automated curtailment triggers and crediting for Demand Response (DR) and Build-Your-Own-Generation (BYOG).

diagnosis allows solutions to be sized proportionately and discourages open-ended administrative adjustments.

## III. Guiding Principles

1. Anchor to reliability, not to supply. The RPM demand curve should reflect the Installed Reserve Margin (IRM) and Effective Load Carrying Capability (ELCC)-informed risk—rather than the quantity of offers that happen to clear.

2. Recognize that the analyses and parameters used in deriving the RPM demand curve are based on multiple assumptions and calculations. The capacity market is expected to clear both above and below the reliability requirement over time. Intervening in that balance undermines the market and degrades the confidence of market participants. Regarding the issue of defining the problem clearly, PJM's markets currently procure less UCAP than the expected peak summer load based on the recently implemented risk model identifying most risk in the Winter season. Setting the reliability requirement based on that risk model automatically procures less capacity than if PJM were procuring for only the summer season. Similarly, many resources can perform better in the winter but are not given credit for that performance in the risk model, reducing the amount of capacity available in the winter in the eyes of PJM's models. There are clear analytical explanations for the perception of resource adequacy tightness, but in no case should administrative action be the first instinct.

3. IRM varies over time and between RTOs. Reduction in the IRM warrants further study to understand what is driving that reduction but does not warrant direct market intervention. As shown in the most recently published FERC Common Metrics Staff Report for 2023, PJM's reserve margins have historically been significantly higher than peer RTOs.[2] A change to that historical pattern is worth exploring but does not constitute a crisis.

[2] https://www.ferc.gov/sites/default/files/2024-01/2023_Common_Metrics_Report.pdf, at 9.

Figure 6: Anticipated and Actual Reserve Margins, 2019 to 2022


LS Power's internal modeling concludes that PJM's reserve margin will not go below 10% over the next several auctions, a relatively common level of reserve margin historically in other RTOs. That begs the question – again, what problem is the CIFP attempting to solve?

4. Preserve transparent price signals. Demand should not be removed from RPM while the same megawatts are fully planned and served in RTEP/NSPL; that hides scarcity and depresses prices when new entry is needed.

5. Voluntary participation with performance. Customers that want firm service should be capacity-backed; customers that want flexibility should opt into standardized interruptible products with credible notice, telemetry, and non-performance settlements tied to scarcity.

6. Transparency and predictability. Address uncertainty with documented, principle-based inputs instead of bespoke, auction-by-auction adjustments.

7. Sunset exceptions. Any out-of-market tool must be narrow, time-boxed, and retired once margins normalize.

8. Real-time scarcity pricing. When any curtailment or emergency mechanism is triggered, the energy and operating reserve markets must continue to reflect scarcity pricing under the Operating Reserve Demand Curve (ORDC) and shortage-pricing rules.

## IV. Why "clearing at supply" is the wrong approach

Reducing the RR to the level of available supply and shifting the VRR curve to clear the RPM at that quantity (as proposed in the NCBL) redefines adequacy to avoid scarcity. It lowers prices by design, signals to developers that shortfalls will be neutralized administratively rather than paid at scarcity, and risks institutionalizing tight conditions precisely when the region needs new entry. In short, it dampens

the incentives for performance in real time and for investment over time. That is the opposite of what is needed now.

PJM has made significant changes in the past few years which, whether intentionally or inadvertently, have signaled that investment is not needed and investors have responded to those signals. Those changes included (1) including RMR contracts in the capacity market; (2) modifying MSOC so resources cannot adequately reflect performance risks, (3) revising the demand curve to procure less capacity, and (4) eliminating the MOPR. Additionally, with market rules in flux for years with no and low price signals, investors have naturally grown more conservative in assessing investments in the PJM market

It is time for PJM to step up and make sure that the capacity and other markets provide the right price signals and incentives to invest in new generation resources to meet the growing demand. PJM needs generation. If allowed to operate effectively, the markets have proven they are capable of responding and are the most efficient method of getting the needed generation built.

### V. A market-compatible package (near term)

#### A. Procure additional capacity to reflect uncertainty (a market input, not a price control)

Given uncertainty around LLAs, retirements, derates, and deliverability, PJM should procure additional capacity commensurate with risk. This remains market-based: the RPM clears competitively against a reliability-based target plus a documented uncertainty allowance, rather than at "supply." The intent is explicit—risk is procured for, not hidden—so prices reveal scarcity when it exists and attract performance and investment.

#### B. A single voluntary, standardized interruptible product for large-load flexibility (integrating the useful parts of NCBL)

If any NCBL-type service proceeds, it should exist only as a clearly defined, voluntary interruptible product—not as a device to remove demand from RPM or to reset the VRR curve. Consolidate the useful operational features contemplated by PJM into one standardized product available to eligible large customers:

- Eligibility and enrollment: clear size thresholds and automation/readiness requirements appropriate for high duty-cycle LLAs.
- Triggers and notice: alignment with PJM's pre-emergency and emergency steps, with defined notice windows suitable for automated response.
- Event limits: reasonable caps on hours per year and typical event duration, stated ex ante.
- Telemetry and verification: minimum telemetry (for example, breaker-open or equivalent) and testing to validate deliverability.
- Settlement and performance: non-performance settled at scarcity (linked to real-time energy and reserves and consistent with Capacity Performance concepts), with crediting rules that avoid double counting with DR or BYOG.

- Planning treatment: full inclusion in RTEP/NSPL for system planning; no corresponding removal of demand from RPM.

When this product is dispatched in real time, energy and operating reserve markets must reflect scarcity pricing under ORDC and shortage-pricing rules. Curtailments and emergency actions should sharpen, not blunt, real-time price formation.

### C. Input discipline on Large Load Additions

Standardize how LLAs enter the forecast used for the Base Residual Auction (BRA). Provide zone-level transparency around inclusion criteria and assumptions to reduce variance across Transmission Owner submissions and to avoid duplicative counting. Predictable inputs reduce both volatility and pressure for administrative "fixes."

### D. Last-resort, time-limited emergency tools

If—after Sections A through C—specific Locational Deliverability Areas still face a temporary gap, PJM can run targeted, location-specific Requests for Proposals for callable capability (for example, fast-entry resources, firm imports, or BRA-specific emergency DR blocks). Guardrails should be stated in principle: short terms with automatic sunset, size and location limits tied to a documented engineering need, transparent results and post-mortems, and strict deliverability verification. These tools should be used as bridge mechanisms, not as substitutes for market signals. Any short-term deployment of the emergency tools must be tariff-constrained so that they don't perpetuate the very problem they are intended to solve. When called, real-time energy and reserves should continue to price scarcity consistent with ORDC.

## VI. Jurisdiction and roles: PJM and the states

PJM's role is to operate FERC-jurisdictional wholesale markets that use competitive market structures to ensure reliability at the least reasonable cost and to maintain transparent price formation. States control siting, environmental policy, and retail rate design—including cost allocation for new classes of customers. Keeping those responsibilities distinct preserves market integrity at the wholesale level while allowing states to address retail allocation questions through their established processes.

## VII. Conclusion

PJM's NCBL concept is a solution looking for a problem. Unfortunately, without first fully explaining and illustrating the problem, by putting the NCBL concept forward, PJM has raised significant questions about the future of its capacity market at the precise moment when stability is needed. Adopting NCBL as framed—i.e., planning and serving large load through the RTEP and NSPL processes while excluding it from the RPM and adjusting the VRR curve to "clear at supply"—would embed a structural, long-lived distortion. It risks suppressing capacity prices by design, dulling shortage signals when curtailments occur, and signaling to developers and lenders that scarcity will be managed administratively rather than transparently through market signals. Experience shows that "temporary" exceptions are hard to unwind once integrated into planning and settlement; the Board should therefore view any emergency measures,

as a last-resort bridge only, and only if bounded by strict sunset provisions, maintained real-time scarcity pricing, and a clear prohibition on redefining the reliability target to the level of available supply.

A more durable path is market-focused and principle-based: keep RPM anchored to its mission: an objective reliability requirement, procure additional capacity explicitly to cover uncertainty, and channel large-load flexibility through a single voluntary, standardized interruptible product with clear triggers, telemetry, and scarcity-based performance settlements—without removing demand from RPM. Pair this with disciplined inclusion and transparency for Large Load Additions in the BRA forecast, and reserve targeted, location-specific, time-limited emergency procurements as a true last resort. This approach preserves transparent price formation in both capacity and energy/reserves, maintains the integrity of wholesale market signals that attract performance and new entry, and offers a credible, practical way to integrate large loads while safeguarding reliability.

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

Tel 425 882 8080
Fax 425 706 7329
www.microsoft.com

Microsoft

August 27, 2025

PJM Interconnection

2750 Monroe Blvd.

Audubon, PA 19403

**RE**: Large Load Additions PJM Conceptual Proposal and Request for Member Feedback

Microsoft appreciates the opportunity to provide feedback on the concepts reflected in the PJM Board of Managers' ("Board's") August 8, 2025 letter initiating the Critical Issues Fast Path ("CIFP") accelerated stakeholder process, which seeks solutions to the potential resource adequacy challenges posed by rapidly interconnecting large loads through changes in the Reliability Pricing Model ("RPM"). This process was also discussed at the Pre-CIFP Workshop stakeholder meeting on August 18, 2025.

## Background

Microsoft is a technology company that constructs, owns, and operates data centers around the world. Microsoft's data centers deliver world-class data security and privacy, enabling the applications, capabilities, and services that support the modern economy, including cloud computing and artificial intelligence ("AI").[1] Because data centers require a reliable and resilient supply of electric power, Microsoft's procurement of reliable, firm, sustainable, and cost-effective energy for its data centers is paramount. This need is particularly critical as demand for cloud services and AI-driven technologies continues to grow rapidly. Reliable grid operations and adequate resource capacity to serve load are essential to Microsoft's data center operations in the PJM Interconnection, L.L.C. ("PJM") region.

[1] *See* Microsoft Datacenters: Illuminating the unseen power of the cloud - Microsoft Datacenters.

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

Tel 425 882 8080
Fax 425 706 7329
www.microsoft.com

Microsoft

To support resource adequacy, Microsoft is partnering with utilities to address grid planning and is leading industry efforts to add new generation capacity. As part of these efforts, Microsoft has entered into an industry-leading 20-year power purchase agreement with Constellation Energy for the Crane Clean Energy Center, which will deliver 835 MW of carbon-free capacity to the PJM grid.

Microsoft appreciates PJM's ongoing work recognizing the need to integrate rapidly growing data center load across its footprint, including PJM's initiatives to improve the generation interconnection queue and load forecasting process. For example, PJM recently implemented changes within the Load Analysis Subcommittee to improve the transparency of large load adjustments to the load forecast. Microsoft recognizes these improvements in load forecasting as an important step forward. Microsoft is concerned, however, that PJM's Non-Capacity Backed Load ("NCBL") proposal introduces significant market design issues and jurisdictional implications that warrant careful stakeholder review, and the accelerated CIFP timeline does not allow for the level of deliberation that these issues require.

## Concerns with the NCBL Concept

Several aspects of the NCBL proposal raise concerns about market consistency and jurisdictional boundaries:

- **Jurisdictional Overreach and Timing Concerns**

PJM's NCBL construct proposes to impose a new, mandatory non-firm service level on certain customers that may already hold state-commission-approved Energy Service Agreements with Load Serving Entities ("LSEs") or Electric Distribution Companies for firm retail service. However, a PJM rule that mandates designation of non-capacity-backed load clearly intrudes upon state jurisdiction and exceeds the Commission's authority. Under the Federal Power Act ("FPA"), states retain exclusive authority over retail electric service, including decisions about whether and how retail customers may contract for interruptible or firm service. PJM's role is to design competitive markets to procure capacity needed for regional resource adequacy; it is not to dictate the terms of retail service. To attempt to do so would be an impermissible encroachment on states' authority over retail electric service, contrary to the FPA's jurisdictional framework and longstanding court precedents. Moreover, the jurisdictional challenges that PJM's proposal presents

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

Tel 425 882 8080
Fax 425 706 7329
www.microsoft.com

Microsoft

cannot be resolved by the compressed timeline PJM has set for stakeholder review and implementation. Alternative approaches should be considered in the stakeholder process.

- **Significant Market Integrity Risks**

A PJM rule curtailing non-capacity-backed load would not only unlawfully intrude on state authority, but it would also fundamentally undercut the very purpose of PJM's capacity market. Data centers are the foundation of the digital infrastructure on which modern society and economies are built. Depriving data center customers of capacity-backed supply and imposing curtailments on those customers effectively denies them the reliability assurance that PJM's market is designed to deliver. Not only would such a rule destabilize the capacity market, undermine investor and customer confidence when significant investment is needed, and conflict with the foundational purpose of the RPM, it would create substantial risk for those sectors of the U.S. economy that depend on data center services.

Moreover, the proposed rule won't solve the problem. If this load is excluded from RPM, there will be no mechanisms sending signals to build new generation. Without being counted in RPM, this demand will not be visible to the forces that drive new generation investment decisions, effectively creating a blind spot in the market over the longer term.

Microsoft is also concerned with a process that models load as firm in the Regional Transmission Expansion Plan but not in the RPM, as this creates a fundamental inconsistency in how system needs are assessed and funded. PJM has indicated that NCBL customers would still be charged the Network Integration Transmission Service ("NITS") rate and treated as network load, yet NCBL could be curtailed under a wide range of conditions—not only in true resource adequacy events. However, because load is treated as firm for transmission planning purposes—justifying infrastructure investment and cost allocation through the NITS charge—then it should also be treated as firm in the capacity market.

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

Tel 425 882 8080
Fax 425 706 7329
www.microsoft.com

Microsoft

Last, it is also unclear how PJM will determine eligibility for forced curtailment, raising concerns that PJM's determinations could be highly prejudicial to certain large loads.

- **Use of the CIFP process**

PJM Manual 34 states that the CIFP process is reserved for major, time-sensitive issues that cannot be resolved through the normal Consensus-Based Issue Resolution process. *See* PJM Manual 34 at 71. The process, which is intended to be used "very infrequently," is for extraordinary circumstances—such as when the normal stakeholder process would not allow PJM to meet a FERC-required deadline, or an existing contentious issue has reached an impasse and requires Board intervention. *Id*. The manual outlines only three circumstances that may trigger the CIFP process:

1. Board initiated time-constrained major issues or existing work efforts that have not achieved, or are unlikely to achieve, consensus, or
2. A new issue, by a greater than 2/3 sector-weighted Members Committee ("MC") vote on an Issue Charge in favor of sending a letter to the Board requesting the CIFP process be initiated, or
3. An in-process stakeholder issue, at proposal-development stage or later, by a greater than 2/3 sector-weighted MC vote on an Issue Charge in favor of sending a letter to the Board requesting the CIFP process be initiated.

*Id*. Although PJM initiated the CIFP process for the NCBL proposal under the first criterion, the CIFP process is not suited for a controversial proposal that touches on complex issues including resource adequacy, state jurisdiction, and retail customer rights. Fast-tracking such a rule through CIFP circumvents the deliberation and transparency the stakeholder process is designed to ensure. This proposal should proceed through the full stakeholder process, allowing time for consideration of alternative approaches.

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

Tel 425 882 8080
Fax 425 706 7329
www.microsoft.com

Microsoft

**Conclusion**

Microsoft appreciates PJM's commitment to addressing the challenges of reliably interconnecting large loads and the opportunity to share these initial comments. However, given the complexity and jurisdictional implications of PJM's proposal, we encourage PJM to reconsider the NCBL construct and the accelerated CIFP timeline and instead pursue a stakeholder process that prioritizes mechanisms to provide retail customers with firm power. A considered and collaborative approach will help ensure that any reforms are jurisdictionally sound, market-consistent, and aligned with the needs of all stakeholders. Thoughtful, carefully vetted rule changes are essential to maintaining confidence in PJM's markets.

Respectfully submitted,

/s/ Jeff Riles

Jeff Riles
Director of Energy Markets, Americas

## Calpine Corp.

PJM's Non-Capacity-Backed Load (NCBL) proposal attempts to address perceived near-term resource adequacy issues with a new type of load flexibility. While we share some of PJM's concerns about resource adequacy and generally supports load flexibility, we cannot support the NCBL proposal in its current form because it is discriminatory, would impose unmanageable risks on new data center loads, and would suppress capacity and energy prices.

As an initial matter, a better understanding of the scale of the problem is required before implementing a change as drastic as NCBL. We believe that the large load adjustments (LLAs) that PJM includes in the load forecast used in the capacity market are overstated. For example, a recent DOE analysis, which incorporated the results of numerous recent studies on data center load growth, projects 15 GW of data center load growth through 2030 in PJM, not the 30 GW that is currently in PJM's load forecast.[1] Whether through the CIFP-LLA process or in the LAS, we encourage PJM to apply greater scrutiny to the LLA forecasts that it uses in its own load forecast, perhaps by only counting load interconnection requests for which customers have made significant financial commitments. Longer term, PJM might consider market changes that require new loads to make greater financial commitments to interconnect. For example, a new large load that is included in the capacity market load forecast might bear the loss associated with selling back excess capacity if the load fails to materialize.

With respect to the NCBL proposal itself, our concerns include the following:

- NCBL is discriminatory

NCBL discriminates unduly between new and existing loads. Under the proposal, only new large loads would be eligible for NCBL and potentially subject to mandatory NCBL. If PJM implements NCBL, any otherwise similar load, e.g., load of a certain size, should be eligible and NCBL should not be forced on new load only.

In addition, NCBL discriminates unduly between new and existing capacity. Under the proposal new load that is potentially subject to NCBL can protect itself from curtailment by securing capacity from new supply or DR. We believe that a load should be able to protect itself from curtailment by securing new or existing capacity.

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[1] See https://www.energy.gov/sites/default/files/2025-07/DOE%20Final%20EO%20Report%20%28FINAL%20JULY%207%29_0.pdf at 20. This is broadly consistent with aonther recent study from EPRI: https://www.epri.com/about/media-resources/press-release/ood6gzwpcqjeuq7dngaq6n4ywomeleq7#:~:text=A%20new%20report%20released%20today,required%20large%2C%20localized%20power%20supply.

Further, while we recognize PJM's interest in the development of new capacity, we agree with Vistra's comments during the August 18th stakeholder meeting that the ability to avoid curtailment through procurement of new or existing capacity could provide an incentive to develop new capacity similarly to an approach that focuses on new capacity alone.

- NCBL would impose unmanageable risks on data center loads

It would be difficult to participate in and/or contract to avoid mandatory NCBL through participation in voluntary NCBL because mandatory NCBL would be triggered year by year. The uncertainty of exposure to mandatory NCBL would likely discourage investment in data centers at a time when the country is trying to encourage such investment. To the extent PJM implements NCBL or any other demand side construct, it should be triggered predictably for multi-year terms

- NCBL would suppress capacity prices

Mandatory participation in NCBL and the removal of the associated demand from the capacity market would be triggered whenever PJM expects to fall short of the reliability requirement, considering supply and voluntary NCBL participation. As LS Power and other stakeholders noted during the August 18th stakeholder meeting, the capacity market is designed to clear short of the reliability requirement at times. Removing load from the capacity market through NCBL whenever PJM expects the market to clear short would reduce prices below equilibrium levels and discourage investment absent complementary changes to the demand curve to reflect expected interventions in the market through NCBL.

- NCBL would suppress energy prices

The NCBL proposal does not address how NCBL would be dispatched in the energy market. We are concerned that it would be dispatched manually and suppress energy prices in conditions in which energy prices should otherwise reflect scarcity. To avoid this suppression, NCBL should be reflected in appropriately high offers and dispatched through the energy market. Alternatively, PJM could set clearing prices administratively to an appropriately high emergency/scarcity value whenever NCBL is dispatched.

Thank you for the opportunity to share these comments. We welcome the opportunity to work with PJM on near-term resource adequacy issues and demand-side participation in PJM markets, but PJM's NCBL proposal is fatally flawed and should be abandoned.

August 27, 2025

PJM Interconnection
2750 Monroe Blvd.
Audubon, PA 19403

**RE**: Large Load Additions PJM Conceptual Proposal and Request for Member Feedback

The Data Center Coalition ("DCC") appreciates the opportunity to provide feedback on the August 8, 2025 concepts presented and discussed at the August 18, 2025 Pre-CIFP Workshop stakeholder meeting. DCC is the membership association for the U.S. data center industry, representing leading data center owners and operators, as well as companies that lease large amounts of data center capacity.[1] DCC's member companies provide the digital infrastructure that enables the applications, capabilities, and services that support the modern economy, including cloud computing, machine learning, and artificial intelligence ("AI") workloads. The vast majority of DCC's member companies have infrastructure, teams, and operations within the PJM region.

We thank PJM for its ongoing efforts to reliably integrate rapidly growing data center load across its multi-state footprint. A reliable power grid is essential for data centers, which depend on consistent, uninterrupted power to support critical operations. Over the past three years, DCC and its members have engaged in collaborative discussions with PJM staff and leadership to both educate PJM on our industry and learn from PJM. We also recognize PJM's initiatives to improve the generation interconnection queue, including the Reliability Resource Initiative ("RRI"), which, as noted by the PJM Board of Managers ("Board"), has unlocked over 11,000 MW of additional generation capacity. Most recently, PJM has implemented changes within the Load Analysis Subcommittee ("LAS") to improve the transparency of large load adjustments to the load forecast. These steps—and others—are important building blocks.

However, as reflected in the Board's August 8, 2025 letter initiating the Critical Issues Fast Path ("CIFP") accelerated stakeholder process to find "solutions to the potential resource adequacy challenges posed by rapidly interconnecting large loads," more needs to be done.[2] While we broadly share the Board's concerns, and agree that additional action is needed, PJM's current conceptual proposal raises fundamental questions relating to market integrity, jurisdiction, and operational feasibility. Many of the ideas presented are novel, with significant cost as well as

[1] The Data Center Coalition is a membership organization of leading data center owners, operators, and large end users. Public testimony, written comments, or letters submitted by DCC do not necessarily reflect the views of each individual DCC member. A list of current DCC members is accessible at https://www.datacentercoalition.org/members.

[2] Board Letter to PJM Stakeholders, August 8 2025, https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2025/20250808-pjm-board-letter-re-implementation-of-critical-issue-fast-path-process-for-large-load-additions.pdf

operational and regulatory implications, and require a level of deliberation and stakeholder vetting that the accelerated CIFP timeline—five meetings before a December filing at the Federal Energy Regulatory Commission ("FERC")—does not realistically permit. Moreover, it is far from clear that the proposal would achieve its stated goal of alleviating supply concerns and spurring additional generation investment. This raises the risk that stakeholders will bear substantial harm without meaningful reliability benefits.

**Forecasting as the Foundation**

PJM's markets depend on accurate load forecasts, which are a key input to all market and planning functions at PJM, as well as a central parameter in the CIFP proposal. DCC and its members have worked extensively with PJM on improving the large load adjustment process. While progress has been made, we believe more is needed to strengthen PJM's confidence in its forecast. This concern was echoed by multiple stakeholders during the August 18 Pre-CIFP Workshop call. Accordingly, we recommend the Board include load forecasting in the areas for consideration within the CIFP scope.

**Concerns with the NCBL Concept**

Several elements of PJM's conceptual design risk undermining PJM's well-established market framework and introducing unintended consequences. The proposed Non-Capacity Backed Load ("NCBL") construct is particularly problematic.

- **Discriminatory Jurisdictional Overreach: Unauthorized Retail Service Mandate**
  NCBL would impose a new, mandatory non-firm service level on customers that may already hold state-commission-approved Energy Service Agreements ("ESAs") with Load Serving Entities ("LSEs") or Electric Distribution Companies ("EDCs") for firm retail service. PJM has not provided a defensible rationale for creating this new class of service, and on its face the proposal is unduly discriminatory. More fundamentally, PJM lacks authority to mandate retail service levels, which fall squarely within state jurisdiction. By attempting to redefine the firmness of retail service arrangements approved by state commissions, PJM risks exceeding its jurisdictional authority.

- **Illogical and Inconsistent Market Treatment**
  PJM's proposal to exclude NCBL-designated load from the Reliability Pricing Model ("RPM") while retaining it in the Regional Transmission Expansion Plan ("RTEP") is not merely inconsistent—it is fundamentally illogical. If load is sufficiently firm to drive transmission planning, then it cannot simultaneously be deemed too uncertain to participate in generation planning. Moreover, if PJM intends to rely on its markets to serve the region's rapid load growth, excluding that very growth from the capacity market undermines the entire premise of organized markets. It forces new generation to be procured outside of RPM, raising the risk of creating a de facto secondary market structure that could conflict with the existing PJM organized capacity market.

- **Contradictory Load Classification**
  PJM has indicated that NCBL customers would still be charged the Network Integrated

Transmission Service ("NITS") rate and treated as network load, yet NCBL could be curtailed under a wide range of conditions—not only in true resource adequacy events. This contradictory classification erodes confidence in PJM's tariff framework. Either data center load is network load or it is not; PJM cannot have it both ways. Compounding this concern, the proposal would leave it to LSEs to decide which customers are subject to NCBL service and which "critical large loads" are exempt. Without clear standards, this approach risks producing a patchwork of opaque and inconsistent rules that invite discriminatory outcomes.

- **Unsupported Assumptions**
  PJM's NCBL proposal rests on an overly broad assumption that large load facilities almost uniformly have on-site backup generation and that such generation can operate without material limitations. In reality, the existence, capacity, and availability of backup units varies widely, and their use is often constrained by emissions limits, fuel supply, and refueling logistics. Absent a comprehensive understanding of these limitations, PJM risks basing policy on assumptions that do not reflect actual operating conditions. Any durable solution must be grounded in realistic, verifiable data on the role—and limits—of backup generation at large load facilities.

- **Undefined Requirements**
  PJM's NCBL proposal provides no meaningful detail on the technical requirements for load curtailment. It is unclear how quickly curtailments would need to occur, under what circumstances they would be triggered, by what means reductions would be implemented, or how performance would be measured and verified. This uncertainty is particularly acute for large load customers that are not registered demand response resources and interact with PJM only through their retail service providers. Without clear technical specifications and compliance criteria, DCC members cannot even begin to assess—on an engineering or operational basis—what this proposal would require or how it could be integrated into their facilities. In short, the absence of defined requirements leaves customers unable to evaluate feasibility, costs, or risks.

Taken together, these flaws demonstrate that the NCBL construct is not a viable path forward. It exceeds PJM's jurisdiction, undermines the integrity of its market framework, introduces fundamental contradictions in tariff application, relies on unsupported assumptions, and lacks the detail necessary for customers to even evaluate technical and operational feasibility.

**Lack of Pathways for Alternatives**

PJM has repeatedly emphasized on the August 18 Pre-CIFP Workshop that mandatory NCBL designation is a last-resort option, and that it hopes to incentivize data center loads to instead pursue alternatives such as bringing their own generation ("BYOG") or participating as a voluntary demand response ("DR") resource. DCC agrees that mandatory curtailments should only ever be a last resort, and our members are more than willing to explore constructive solutions like BYOG and DR. Many DCC companies have already announced innovative energy projects, power purchase agreements, and commercial arrangements that expand generation

and support reliability across the PJM footprint. Our members remain committed to being part of the solution and are actively seeking clarity on how options like BYOG could realistically support the timely interconnection of new data center facilities.

Yet PJM has offered almost no detail on how either the BYOG or DR alternatives would function within PJM's markets and planning processes. Without clear rules of the road, transparent market pathways, and workable participation models, these alternatives remain theoretical, and absent detail, cannot serve as actionable solutions. As a result, PJM's proposal does not create a credible framework for data centers to contribute to solving the underlying challenge—it is defaulting to singling out and subjecting our members to a new, non-firm level of service. If PJM genuinely wants large load customers to be a part of the solution, it must urgently provide concrete details, stakeholder engagement, and workable pathways for alternatives like BYOG and DR.

**Conclusion**

DCC appreciates the opportunity to provide these initial comments. But we cannot support rushing through a proposal that exceeds PJM's jurisdiction, undermines its markets, and lacks viable alternatives. We respectfully urge PJM and the Board to reconsider the current accelerated CIFP timeline and instead allow for meaningful stakeholder dialogue under the guidance of incoming leadership. PJM's market reforms must be carefully considered, technically feasible, jurisdictionally sound, and designed to preserve confidence in PJM's markets.

Respectfully submitted,

Josh Levi
President
Data Center Coalition

Monitoring Analytics, LLC
2621 Van Buren Avenue, Suite 160
Valley Forge Corporate Center
Eagleville, PA 19403
Phone: 610-271-8050
Fax: 610-271-8057

Monitoring Analytics

**DATE:** **August 27, 2025**
**TO:** **PJM Pre-CIFP Workshop**
**FROM:** **PJM IMM.**
**SUBJECT:** **Issues for Large Load Additions CIFP**

## Introduction

The CIFP process to address the addition of large new data center loads to PJM markets is timely.

There is a market solution to the issues created by the addition of unprecedented amounts of large data center loads that does not require a massive wealth transfer. That solution is to require large data center loads to bring their own new generation. It is essential to have a pragmatic market solution that is consistent with and sustains efficient and competitive PJM markets rather than to create the conditions for a return to cost of service regulation.

In summary, the current tight conditions in the PJM Capacity Market are almost entirely the result of large data center load additions, both actual historical and forecast. The current supply of capacity in PJM is not adequate to meet the demand from large data center loads and will not be adequate in the foreseeable future. The solution is not to create reliability issues and wealth transfer issues by clearing the capacity market at the maximum price and at a quantity less than the reliability requirement. Status quo, co-location, cost of service, and load that is not load options all ignore the real issue and exacerbate reliability issues and customer cost issues. The market solution is to require new large data center loads to bring their own new generation with locational and temporal characteristics reasonably matched to their load profile. The generation must be able to serve the actual hourly load without transmission constraints. One benefit of being on the grid is that the new data center loads do not have to bring their own reserves.

On June 3, 2025, the Market Monitor published Part G of the analysis of the 2025/2026 BRA and sensitivity analyses related to the implications for the 2026/2027 BRA.[1] The basic conclusion of Part G is that data center load growth is the primary reason for recent and expected capacity market conditions, including total forecast load growth, the tight supply and demand balance, and high prices. But for data center growth, both actual and forecast, the PJM Capacity Market would not have seen the tight supply demand conditions, the high prices observed in the 2025/2026 BRA and 2026/2027 BRA or the high prices expected in subsequent capacity auctions.

[1] See "Analysis of the 2025/2026 RPM Base Residual Auction - Part G Revised," ("Part G") (June 3, 2025) <https://www.monitoringanalytics.com/reports/Reports/2025/IMM_Analysis_of_the_20252026_RPM_Base_Residual_Auction_Part_G_20250603_Revised.pdf>.

Holding aside all the other issues raised by the Market Monitor in parts A through H of this report, data center load by itself resulted in an increase in the 2025/2026 BRA revenues of $9,332,103,858 or 174.3 percent (Scenario 88).[2]

It is misleading to assert that the capacity market results are simply just a reflection of supply and demand. The current conditions are not the result of organic load growth. The current conditions in the capacity market are almost entirely the result of large load additions from data centers, both actual historical and forecast. The growth in data center load and the expected future growth in data center load are unique and unprecedented and uncertain and require a different approach than simply asserting that it is just supply and demand.

It is equally misleading to assert that the PJM Capacity Market does not work as a result of the impact of existing and forecast large data center load additions. Despite all the issues with PJM's changes to the capacity market design, the PJM Capacity Market would have provided for reliability at prices consistent with organic load growth and the cost of new capacity were it not for the paradigm shift represented by the almost inexhaustible demand for power from data centers.

Data center load growth is the core reliability issue facing PJM markets at present. There is still time to address the issue but failure to do so will result in very high costs for other PJM customers and could also result in a switch from competitive markets to cost of service regulation. Customers are already bearing billions of dollars in higher costs as a direct result of existing and forecast data center load as the Market Monitor demonstrated in Part G of the BRA Analysis report.

One of the many issues that have not been addressed to date and would not be addressed by other options is whether Part V (RMR) obligations would be incurred in order to serve large data center loads. Such obligations would not be incurred under the bring your own new generation option. Such obligations would be incurred under the other options. This is another significant subsidy that other load would be required to pay to support large data center load additions.

All of the currently identified options require PJM to plan the transmission system to meet large data center loads consistent with the RTEP and require all customers to pay an allocated share of the transmission upgrades required to serve large data center load additions.

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[2] See Monitoring Analytics, LLC reports on the 2025/2026 RPM BRA, "*Analysis of the 2025/2026 RPM Base Residual Auction,*" Parts A-H. These reports can be found at <https://www.monitoringanalytics.com/reports/Reports/2024.shtml> and <https://www.monitoringanalytics.com/reports/Reports/2025.shtml>.

## *The Role of FERC Regulated Markets*

Some generation owners have asserted that they have the right to sell their generation capacity in PJM to anyone they want, outside the capacity market. While that is a superficially appealing concept in a market economy, it is not correct. FERC established competitive markets as a substitute for cost of service regulation in order to achieve a more efficient path to just and reasonable rates. PJM and other wholesale power markets are not laissez faire markets where all behavior is acceptable. PJM markets remain regulated under the Federal Power Act, which is a customer protection statute. The goal of all the complex PJM market rules is to use competitive markets as a mechanism to establish just and reasonable rates. It is not just and reasonable to permit the addition of massive new data center loads to the PJM markets without generation to meet those loads. It is not just and reasonable to permit generators to remove themselves from the capacity market by selling their output to a large data center load while continuing to provide generators all the benefits of PJM markets.

Generation owners do have the option to sell their generation capacity to anyone they want, provided that they can show that the sale is consistent with the public interest, but that also means that lose the benefits of markets if they choose to operate outside PJM markets and market rules. Such generation owners would have to give up their CIRs because CIRs create a must offer obligation, and thus their deliverability. It is not clear that a generating unit could actually function effectively in PJM without CIRs and deliverability and access to the grid and grid resources.

The market rules exist to ensure that the market results provide reliability at a competitive price and are therefore just and reasonable.

# SOLUTIONS

## *Bring Your Own New Generation.*

The Market Monitor recommends that new data center load be required to bring their own new generation. If that recommendation were adopted, the impact of data center load growth on other customers would be limited, although the existing impact of the already embedded data center load would remain. In addition, the impact of the uncertain forecast of data center load on other customers would be limited or eliminated, and the slower underlying dynamic of organic load growth and incentives would play out.[3] Under this option, data centers would enter into bilateral contracts with developers to build generation with locational and temporal characteristics reasonably matched to their load profile. The capacity would be offered into and

[3] See "Pre Technical Conference Comments of the Independent Market Monitor for PJM," *Meeting the Challenge of Resource Adequacy in Regional Transmission Organization and Independent System Operator Regions*, Docket No. AD25-7.

clear in the PJM Capacity Market. Both the data center load and the associated generation would have an expedited queue option that would permit both the load and the generation to be added without delays.

It has been asserted that requiring large new data center loads to bring their own new generation would be discriminatory. The relevant standard for prohibited discrimination is unduly discriminatory.[4] It is not unduly discriminatory to identify the class of large data centers and impose requirements on that class that match the impact of that class on all other customers. It would be unduly discriminatory to all other customers, from the smallest residential customer to the largest industrial customer, to allow large data centers to add massive amounts of load to the system with resulting price impacts and reliability impacts on those other customers. Preventing undue discrimination requires that data center loads bring their own new generation.

It is not an overstatement to assert that the ongoing addition of large data center loads will put PJM competitive markets at risk unless there is a solution that requires large data center loads to pay for the costs that they would otherwise impose on other customers. This does not mean just the costs of a substation or a large financial commitment to purchase power. Bringing the new generation needed to meet the data center load is a long term investment required for reliable service that signals that data centers are in the markets for the long haul and committed to the competitive market design. The other options put PJM competitive markets at risk.

## *Other Options*

There are a number of other proposed options for addressing the reliability issues that result from the addition of large data center loads, including doing nothing, a return to cost of service regulation, imposing more financial commitments on new data center loads, allowing co-located load for existing generation, allowing bilateral contracts for existing generation, and defining a new category of load that is not load in the capacity market. None of these options includes a mechanism for adding capacity to serve the new load while maintaining competitive markets. Each of the other options creates a risk of ending competitive markets either directly or as a result of the high costs imposed on other customers that would create pressure to leave competitive markets.

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[4] *See* Federal Power Act § 205, 16 U.S.C. § 824d(b) ("No public utility shall, with respect to any transmission or sale subject to the jurisdiction of the Commission, (1) make or grant any undue preference or advantage to any person or subject any person to any undue prejudice or disadvantage, or (2) maintain any unreasonable difference in rates, charges, service, facilities, or in any other respect, either as between localities or as between classes of service.").

## Status Quo.

The option characterized as just letting the markets work is the doing nothing option or the status quo. This option does not directly address the fact that the doing nothing option will result in capacity market prices being at their maximum level for the foreseeable future, recognizing that a specific maximum price and minimum price have been established for the 2026/2027 BRA that occurred in July 2025 and the 2027/2028 BRA scheduled to occur in December 2025. The costs of the doing nothing option for all other customers in PJM will be very high.

The maximum price in the 2025/2026 BRA was $451.61/MW-day for the RTO. The RTO cleared at $269.92/MW-day while the BGE LDA cleared at its maximum price of $466.35/MW-day and the Dominion LDA cleared at its maximum price of $444.26/MW-day. The maximum price in the 2026/2027 BRA was $329.17/MW-day. Currently proposed maximum capacity market prices for the future, after the 2027/2028 BRA, range from $390/MW-day to $959/MW-day.[5]

PJM does not currently study the addition of large data center loads to ensure that the loads can be met reliably.[6] In other words, PJM does not determine whether there is enough capacity with the right attributes and in the right location to serve the load when a new large data center load is proposed by a utility. PJM's studies are limited to the adequacy of the transmission system to deliver energy from either existing generation or generation that is simply assumed to exist in the future. The addition of large data center loads without the assurance that the loads can be met reliably with existing generation puts the reliability of the system for other customers at risk.

If the additional data center load is not matched by increased capacity, PJM will fall short of its required reserve margin. Prices will be at the maximum price defined by the VRR curve with the likely result that billions of dollars of data center related costs will be imposed on other customers. Customers could perceive that they would be better off in an average cost design rather than a marginal cost design and choose to leave PJM markets.

In addition, the tariff provides that the capacity market reliability backstop option will be triggered if PJM falls short of its target reserve margin for three consecutive BRAs.[7] The tariff

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5 See Monitoring Analytics, LLC presentation to the August 22, 2025, MIC- Quadrennial Review meeting. "IMM Gross and Net CONE at 8 <https://www.monitoringanalytics.com/reports/presentations/2025/IMM_MIC_Quadrennial_Review_IMM_Gross_and_Net_CONE_20250822.pdf >.

6 *See*, *e.g.*, OATT § 32.

7 *See* OATT Attachment DD § 16.3.

also triggers the backstop option if PJM is short of "baseload generation" compared to forecasted minimum hourly load for three consecutive BRAs.[8] PJM's consultant proposed an earlier triggering of the backstop auction.[9] The backstop option provides that PJM may sign contracts for capacity resources for up to 15 years at full cost of service rates.

Implementation of such long term cost of service contracts would undermine competitive markets and suppress prices for competitive entrants because the backstop capacity is required to be offered in the capacity auctions at zero price.

## Cost of Service Regulation

The return to cost of service regulation urged by some current regulated utilities would be equivalent to a pay as bid, guaranteed long term cost recovery contract for those regulated utilities. The attractiveness to those utilities of adding to rate base and receiving a guaranteed stream of revenues is clear. The results for customers would include imposing the generation related costs of data center load solely on the customers of the utility that builds the generation and would include customers guaranteeing the payment of the current high cost of building new generation. The cost of service approach would undermine competitive markets by creating subsidized generation, where customers bear the risk, that would compete with market generation, where investors bear the risk.

The cost of service approach would require the customers of the utility to subsidize investors in the data centers by paying for the generation capacity needed to serve the data centers rather than requiring those investors to pay directly for the capacity they need.

Proponents of the cost of service approach explicitly reject the PJM market approach, confusing legitimate issues with the current market design and historical interconnection issues with a failure of PJM markets overall.[10] While many of the specifics of the critique of the market design and implementation are legitimate, the conclusion that competitive markets should be eliminated in favor of a return to cost of service regulation is not supported.

If the utilities assigned the costs of the new generation directly to data centers with no impact on other customers, it would be the equivalent of a bilateral contract with the data centers and

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8 *Id*.

9 See Brattle's presentations to the April 11, 2025 MIC – Quadrennial Review meeting, "Sixth Review of PJM's RPM VRR Curve Parameters," <https://www.pjm.com/-/media/DotCom/committees-groups/committees/mic/2025/20250411-special/item-01-1-cone-and-vrr-curve-final-recommendations.pdf>.

10 See Pre-Conference Statement of Wendy Stark on Behalf of PPL Corporation Panel 2: PJM's Resource Adequacy Challenge Docket No. AD25-7 (May 16, 2025).

qualify as data centers bringing their own new generation. Instead, the utilities' cost of service approach would impose these generation costs on all other customers.

## Financial Commitments.

Some have suggested that the problem can be solved by requiring new large data center loads to enter into contracts requiring the data centers to pay for local transmission upgrades like substations and/or to commit to paying minimum fees to cover the costs of broader transmission system upgrades. Others have proposed additional financial or contractual requirements for data center customers, such as upfront collateral requirements or minimum demand provisions that require a customer to pay for a certain level of service regardless of current demand.[11] None of those proposals have included required payments to hold other customers harmless from the impact on energy and capacity prices that result from the addition of data center loads.

A positive result of this approach would be to reduce some of the speculative load growth from PJM forecasts. That would limit the forecasting excesses but not eliminate the impact on PJM capacity and energy markets. While the uncertainty and excesses included in current forecasts exacerbate the underlying issue, that underlying issue is a result of the real forecasts for real load growth based on the addition of real data centers.

## Co-Located Load.

While it is hoped that the fundamental flaws in the co-located load approach have meant the demise of the co-located approach, the ongoing flood of requests for Necessary Studies and the associated filed Necessary Study Agreements (NSA) mean that some still hold out hope that this option can be pursued.[12]

The co-located load approach is worse than the do nothing approach because it can be implemented more quickly and because it fails to draw clear lines between actual reliance on market capacity resources for backup and on the grid for grid services, and the pretense that

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[11] *See* Pre-Filed Statement of Brian D. George on behalf of Google LLC, Docket No. AD25-7-000 (May 16, 2025) at 3–4.

[12] *See* Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM, Docket No. ER25-1623-000 (April 21, 2025); *see also*, *e.g.*, Dockets Nos. ER25-1089-000, ER25-1226-000, ER24-1377-000, ER25-1385-000, ER25-1520-000, ER25-1754, ER25-1762-000, and ER25-1855-000.

the load is completely disconnected from the grid.[13] The co-located load approach would assign existing generating assets to large data center loads and remove the generating assets from the PJM supply for all other customers. This approach would simply ignore the negative reliability and cost impacts on all other customers. This approach would create significant reliability issues for other customers, significantly increase the cost of capacity and significantly increase the cost of energy and significantly increase the cost of reserves.

The co-located approach, if implemented broadly in PJM, would result in a failure to meet reliability standards, favoring new data center load over reliable service to other customers, and extreme price impacts on other customers in the energy, reserves and capacity markets.[14]

## Bilateral Contracts for Existing Resources.

Bilateral contracts for existing resources have many but not all of the downsides of the co-located load approach. Purely financial bilateral contracts, e.g. contracts for differences, work within the existing market design and have no impact on market outcomes for other participants. Bilateral contracts that provide sole rights to existing resources, effectively removing them from the capacity available to serve all load, would facilitate the short term addition of large data center loads to the system without adding generation. These bilateral contracts have the issues identified for co-located load arrangements. Such data center loads claim, in the case of bilateral contracts with existing nuclear or hydro plants, that they are served with 100 percent clean energy. Those claims are not correct. Such data centers are simply claiming rights to existing nuclear or hydro output while requiring, in fact, the addition of new emitting resources, paid for by other customers, to meet their 8,760 hour load profile. Such data center additions also assert that they do not need regulatory approval for such bilateral

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[13] *See, e.g.*, Comments of the Independent Market Monitor for PJM, Docket No. EL25-49-000 (April 23, 2025); Comments of the Independent Market Monitor for PJM, Docket No. ER24-2888-000, et al. (October 2, 2024); Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM, Docket No. ER24-2172-000 (July 10, 2024).

[14] *See* Monitoring Analytics, LLC, "Potential Impacts to the Creation of Maryland FRRs," (April 16, 2020) <*https://www.monitoringanalytics.com/reports/Reports/2020/IMM_Potential_Impacts_of_the_Creation_of_Maryland_FRRs_20200416.pdf*>; Comments to the Maryland PSC Senate Bill 1 Co-location Study Administrative Docket PC 61 (September 24, 2024) <https://www.monitoringanalytics.com/filings/2024/IMM_Comments_MDPSC_PC61_20240924.pdf> ; Supplemental Comments to the Maryland PSC Senate Bill 1 Co-location Study Administrative Docket PC 61, (December 13, 2024) <*https://www.monitoringanalytics.com/filings/2024/IMM_Supplemental_Comments_re_MDPSC_PC61_Co_Located_Load_20241213.pdf*>.

contracts with existing resources.[15] The bilateral contract approach, unlike the co-located approach, recognizes that the data center load is part of the market and it does not pretend that the load is disconnected from the grid.

The bilateral contract approach is a variant of the do nothing approach but worse because it happens faster and without regulatory oversight and therefore brings negative consequences to the market for other customers.

## Load That Is Not Load In the Capacity Market

PJM proposes that large new data center loads be treated as "non capacity backed load."[16] There is no such thing as non capacity backed load. PJM capacity resources serve all load. The current rules require all loads to pay for capacity under the PJM must buy/must sell capacity market design. The PJM proposal appears to be based on the idea that if do not consume power at peak times then you do not use capacity. That concept is incorrect. Capacity is not a peak only product. Capacity provides energy 8,760 hours per year, whether demand is high or low.

The non capacity backed load is in reality a way to allocate all capacity costs to other customers and none to the large data center loads. This allocation requires all other customers to subsidize the large data center loads. This allocation also requires rules about when the data center load would be interrupted. Should it be interrupted when this load causes prices to increase above a threshold? Should it be interrupted when reserves are below a defined threshold? Should it only be interrupted when the only alternative is to black out other customers? PJM's proposal is to interrupt this load only when PJM cannot otherwise serve load plus exports or relieve transmission constraints. PJM would interrupt this load prior to interrupting pre-emergency or emergency demand response customers. PJM's approach would result in significantly higher energy costs and reserve costs for all other customers as a result of large data center loads without additional generation and without an economic interruption trigger.

It is also hard to image how large data center loads that want 99.999 percent reliability would accept the potential for a significant and growing number of interruptions. If PJM adds 10,000 or 20,000 or 30,000 MW of large data center loads, all without adding matching capacity, the expected frequency of interruptions will increase significantly.

The load that is not load option is not a viable option. It fails to require that large new data center loads have capacity to meet their loads. It allocates the capacity costs needed to serve

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15 *See* Talen Energy Expands Nuclear Energy Relationship with Amazon (June 11, 2025), which can be accessed at: <*https://ir.talenenergy.com/news-releases/news-release-details/talen-energy-expands-nuclear-energy-relationship-amazon with Amazon*>.

16 See PJM presentation at the CIFP-Large Load Additions meeting, "Large Load Additions PJM Conceptual Proposal and Request for Member Feedback," Aug. 18, 2025.

large new data center loads to other customers. It results in decreasing reliability for the large data center loads. It results in increased energy costs for other customers. It results in increased reserves costs for other customers. It results in increased transmission costs for other customers as a result of allocating the transmission costs required to serve large data center loads to other customers.

PJM currently lacks the authority to direct highly specific load shed actions and lacks the ability to implement such load shed actions. Under the current rules, PJM may direct the transmission dispatcher to reduce the aggregate load following emergency actions. Load shed actions have always been at the discretion of the transmission owner. Under the proposed structure, PJM would have to depend entirely on the transmission owners to carry out its targeted interruptions even in the absence of any such authority.

## *PJM's Proposed Two Step Approach to Capacity Market Clearing*

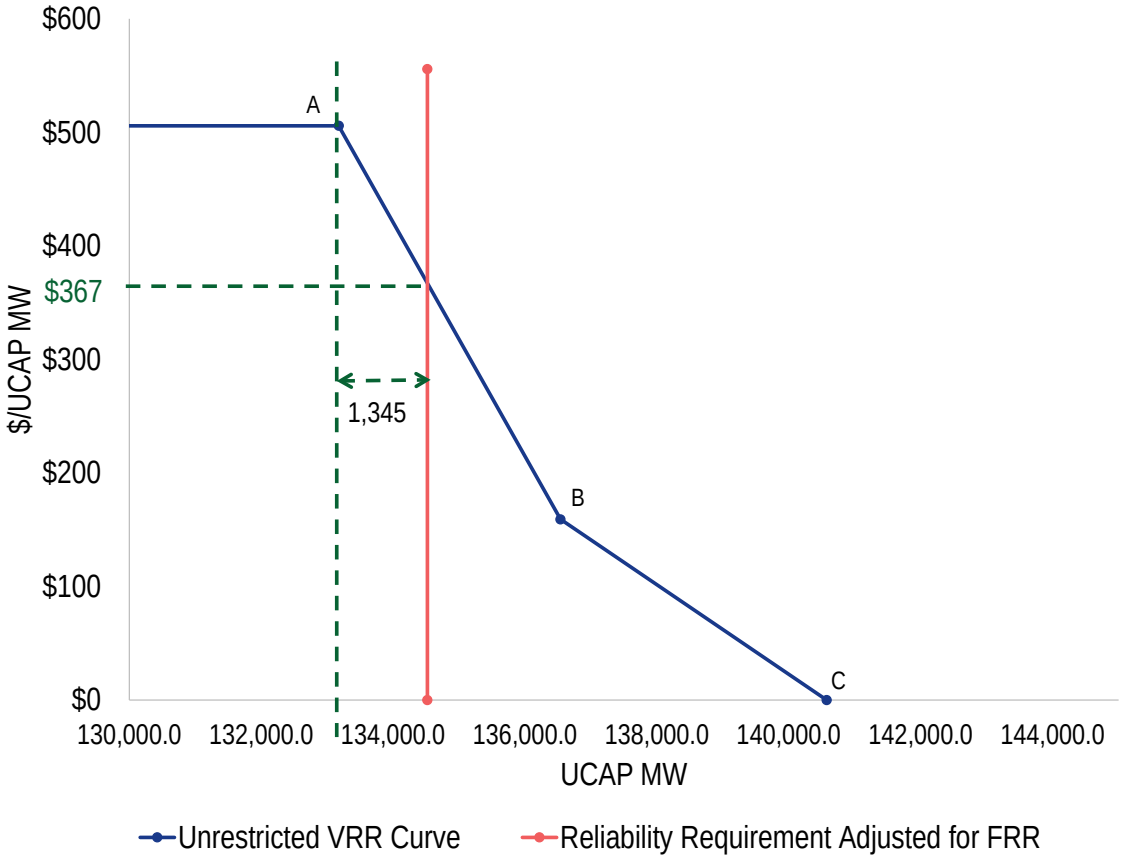
PJM proposes specific rules for triggering the requirement to be load that is not load. PJM proposes a two step approach to clearing the capacity market. In the first step, PJM would clear the Base Residual Auction (BRA) to procure capacity to serve the entire projected load, including the projected large load additions. The reliability requirement, installed reserve margin, marginal ELCC based accredited UCAP factors, LDA reliability requirements and CETL values would be calculated to meet the reliability needs of the full projected load in the delivery year. If the cleared capacity in the auction fails to meet the reliability requirement at the RTO level, PJM would implement the second step of their proposal, under which the specific LDAs that fall short of meeting their reliability requirement would be identified. The proposed rules provide for the voluntary and mandatory removal of load from the LDAs by classifying the load as non capacity backed. After the removal of load, PJM would clear a second auction. In the second auction, the reliability requirement at the RTO and LDAs would be reduced based on the load reduction. However, all other auction parameters and marginal ELCC based accreditation factors would remain the same from the first auction.

If PJM believes voluntary and mandatory load reductions are effective and enforceable as they claim, a correct approach would be recalculate all parameters of the auction that take into account those reductions.

Under PJM's proposed approach, the removal of load is triggered if the cleared capacity in the auction is short of meeting the reliability requirement. Since Point A of the VRR curve is set at 99 percent of the reliability requirement, the removal of load is triggered when the clearing price is below the maximum price. Figure 1 shows the difference between Point A and the reliability requirement in the unrestricted VRR curve used for the 2026/2027 Base Residual Auction (BRA). The difference between Point A (133,174.3 UCAP MW) and the reliability requirement adjusted for FRR (134,519.5 UCAP MW) in the unrestricted VRR curve used for the 2026/2027 BRA was 1,345 UCAP MW. If the reduction of load results in the supply curve

intersecting the demand curve at the reliability requirement, the result would be a de facto maximum price at the intersection of the reliability requirement and the VRR curve. The result would also be that the actual capacity market prices would equal this de facto maximum price for the foreseeable future.

**Figure 1 Reliability Requirement and Point A on the Unrestricted VRR curve used for the 2026/2027 RPM Base Residual Auction**



988 Howard Ave Suite 200
Burlingame, CA 94010
eolianenergy.com

**Comments of Eolian, L.P. on PJM's Critical Issue Fast Path proposal concerning large load additions**

Eolian, L.P.[1] (Eolian) appreciates the focus that PJM and its Board are placing on large load additions in this Critical Issue Fast Path stakeholder process, but cautions that unless modified, PJM's Conceptual Proposal will fail to achieve its stated goals. Eolian strongly urges PJM to expand the scope of its proposal to include tariff revisions necessary to encourage voluntary contracting between new supply and demand resources. Without such changes, the process could amount to little more than an organized process for involuntary load shed and will fail to serve as a mechanism to reliably serve new demand.

In Eolian's view, the proposal fails to offer *any* workable pathway for voluntary contracting arrangements that would form the basis for loads to elect to be treated as Non-Capacity-Backed Load (NCBL). While there are conceivably many paths through which PJM could encourage voluntary contracting, these comments focus on the need for modifications that enable contractual arrangements between new load and new supply located behind the same substation. In Eolian's view, such arrangements are particularly promising because they will generally be the most efficient and cost-effective self-supply arrangements by allowing suppliers to offer a full range of services into competitive wholesale markets while providing for bilateral arrangements for capacity supply, which is the central issue driving reliability and affordability concerns in the PJM region.

PJM is correct to place the utmost importance on ensuring its ability to reliably serve demand as market conditions rapidly change. As PJM implicitly recognizes, PJM's current capacity market structure and interconnection processes are not adequate to reliably serve demand in the region on a going forward basis given explosive growth of large load customers. Eolian supports the need for reform, as well as its insight that a core part of the solution to address the needs of large loads must be the ability of these loads to bring their own supply (including energy storage) resources. **This should include pairing co-located large loads with supply resources that serve their capacity needs—including co-located behind-the-meter and co-located in front of the meter but behind the same substation.** While PJM's concepts of voluntary NCBL elections and Bring Your Own Generation (BYOG) hold potential promise, as drafted the conceptual proposal will not encourage voluntary entry into these arrangements and so will ultimately fail.

This is for two reasons. First, the proposal fails to provide predictable long-term outcomes that are a necessary foundation to the contractual agreements large loads and their capacity suppliers will have to elect to pursue BYOG or NCBL designation. Second, the proposal does not include a mechanism to allow load electing NCBL to match demand with particular supply resources that, such that a load can avoid curtailment to the extent that it has matching resources up to its capacity obligation (e.g. in a given curtailment event, a 100 MW NCBL would avoid curtailment if and only if it had at least 100 MW of bilaterally contracted capacity injecting into the system). Eolian recommends that PJM modify the scope of the proposal to facilitate direct supply arrangements (including with resources that are front-of-meter but behind-the-substation), by

[1] Eolian, L.P. develops, owns, and operates dispatchable energy storage projects across RTO regions including PJM.

988 Howard Ave Suite 200
Burlingame, CA 94010
eolianenergy.com

working with stakeholders to expeditiously develop modifications to address these two critical shortcomings of its proposal. While time is of the essence, ultimately developing a structure that enables commercially viable paths for load and supply to coordinate will be more expeditious than attempting to implement an unworkable proposal. As currently structured, the NCBL schema will fail to address the real challenges and opportunities that PJM has identified and ultimately will not yield the outcomes PJM so desperately needs.

In addition, Eolian applauds PJM for identifying the potential for further interconnection reforms to facilitate large load interconnection. To achieve results, however, PJM must provide specific details as to how interconnection will be accelerated. In addition to reforms developed in this CIFP process, PJM should initiate a process to implement concrete reforms to its interconnection, transmission service, and transmission planning processes to induce voluntary self-supply arrangements and protect customers by better ensuring affordable, right-size system infrastructure.

**The challenge for loads contracting with co-located supply**

Under PJM's current rules, there is no effective mechanism for capacity demand and supply to contract with one another such that demand directly assumes the performance risk from co-located supply and vice versa.[2] PJM must address this challenge to achieve its goals.

Imagine, for instance, 1 GW of load, co-located with 1 GW of accredited capacity that participates in PJM's market through a front-of-the-meter arrangement. It is true that, as PJM highlights in its August 18 conceptual proposal presentation, this load and supply can enter into a bilateral capacity purchase agreement under PJM's current market rules.[3] However, under PJM's rules, the capacity supply resource must continue to offer into RPM, and the load would continue to be responsible for capacity purchase obligations (as mediated through the relevant load-serving entity). Given the fact that load and supply would continue to settle through PJM's centralized market construct, this arrangement subjects the parties to accreditation and performance risk unrelated to the ability of the supply resource to serve its contractual counterparty on the terms of the bilateral agreement.

Two distinct challenges prevent efficient contracting between co-located front-of-meter supply and load. First, forcing all capacity to separate from load in PJM's centralized construct prevents dynamic load and supply from matching with one another to cost-effectively meet the load's needs. Capacity accreditation, as determined through PJM's central market, may differ from the individual customer's actual capacity needs given the characteristics and operational capabilities of the load. Second, PJM's accreditation of resources will change over time in a manner difficult for the parties to contract around. Under PJM's effective load carrying capacity (ELCC) formula, factors such as system resource mix and weather trends will influence capacity accreditation but

[2] In response to FERC's Order to Show Cause in Docket No. EL25-49, PJM notes that its tariff currently permits Behind The Meter arrangements. *See* PJM Answer, Exhibit A, Existing Option 3. However, PJM indicates that such arrangements are not preferred for large loads. *Id.* Further, these types of structures do not allow for supply to participate in front of the meter and supply system services to the broader PJM system while contracting directly with co-located load for capacity or other values that are not delivered to PJM.

[3] Large Load Additions PJM Conceptual Proposal and Request for Member Feedback, at 7 (Aug. 18, 2025).

988 Howard Ave Suite 200
Burlingame, CA 94010
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may not impact an individual supply asset's ability to support an individual load. Further, PJM's tariff and accreditation method may be subject to further changes over the life of the asset.[4]

Overall, it is more difficult for the counterparty to assess the likely future accreditation level than it is to determine whether the resource will be needed if called upon. Under PJM's market structure that, in practice, forces suppliers and load to enter RPM separate from one another, either load or supply will need to assume the risk that the contracted supply resources will fail to meet the large load's PJM-determined capacity needs in the future. Critically, the large load may find itself with a gap between the supplier's accredited capacity and the load's capacity obligation even if a large load's actual capacity needs, as determined by the load itself, will be fully satisfied by a combination of contractual supply, flexible operation, and voluntary load shed. In other words, even if there is never a moment when the supplier is not delivering and the load draws from the broader PJM system during shortage conditions, PJM's current system for accrediting capacity could determine that the accredited capacity of the supply is less than the capacity obligation associated with the load. There is no mechanism for load to promise only to rely on specific front-of-meter capacity supply resources.

Without additional flexibility and long-term predictability, bilateral capacity supply arrangements between load and supply can only provide a limited financial hedge benefit, rather than allowing commercial relationships that would meaningfully ameliorate the region's resource adequacy concerns. Filling this gap would help facilitate the rapid entry of supply to meet new demand, without compromising reliability or affordability for other customers.

**The solution: allow for direct capacity supply**

The parties could avoid these capacity accreditation risks if PJM's rules permitted direct capacity supply obligation where the load promised to rely only on co-located self-supplied capacity resources (taking on the risk of capacity shortfall), and in turn was exempted from a capacity supply obligation. In the example above, the 1 GW load could be removed from the region's reliability requirement, promising to draw only from the 1 GW of co-located supply.[5] To the extent that the supply did not perform during a shortage event, the load would be subject to curtailment prior to capacity-backed DR. Such an arrangement would allow for supply to directly match its performance risk with load.

[4] Behind-the-meter arrangements are another potential option for supply and demand, but are also subject to significant uncertainty given the Commission's pending order to show cause proceeding in Docket No. EL25-49.
[5] Removing supply and demand from the market is not the only theoretical way to operationalize this concept, which could also be effectuated through a mechanism that paired the demand with supply in some other manner.

988 Howard Ave Suite 200
Burlingame, CA 94010
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**The Concepts in PJM's Proposal Hold Potential But Fall Short of Addressing This Challenge**

PJM's proposal introduces the concept of Non-Capacity-Backed Load (NCBL). With the right design parameters, this concept could facilitate direct self-supply arrangements that address the risk described above. But as proposed, it will fail.[6]

PJM's concept of NCBL is directionally aimed at solving the contracting issue outlined above because NCBL demand would be pulled out of PJM's capacity market, and in turn, be subjected to potential curtailment during pre-emergency conditions (before capacity-backed Demand Response).[7] However, two features of PJM's proposal will significant hamper the ability of large loads to enter into agreements with supply resources that are likely necessary to elicit voluntary NCBL:

First, the proposal frames NCBL as only a temporary transitionary measure, with the level of NCBL made available on a voluntary or mandatory basis determined for each specific auction year based on the gap between supply offering into the market and the amount needed to maintain the RTO Reliability Requirement.[8] Suppliers and load cannot reasonably be expected to contract with one another based on the uncertain proposition that NCBL may be available in a given year. And the time horizon for which PJM envisions NCBL being available does not match the asset life (or financing requirements) of supply resources seeking to serve large loads. As a result, the effect on any given load is sufficiently speculative and short term such that it offers little additional incentive for the load to bilaterally contract with capacity supply resources. Without voluntary NCBL elections, PJM's concept would, in effect, be merely a means of allocating potential shortage with little incentive or mechanism for entities to make efficient investments to mitigate such shortage conditions.

Second, the proposal appears to contemplate BYOG and NCBL as separate concepts, and does not include a specific pathway through which supply could be matched with load and load could be curtailed only if and when the matching supply is not injecting into the system. The proposal refers to BYOG as an arrangement that would exempt a given load from mandatory NCBL assignment. But it includes no details as to how BYOG would be achieved, nor does it contemplate any specific mechanisms for pairing the incremental supply associated with BYOG with the relevant load. To the extent that load and supply continued to separately offer into RPM under PJM's proposal, it would not address the capacity accreditation contractual risk issues outlined above and would not solve the fundamental risk observed by PJM that the RPM will fail

[6] Eolian supports PJM's goals to (1) "create ways for new large loads to connect as rapidly as possible and at the same time, determine a plan for how reliability is maintained in case there is a resource adequacy shortfall"; (2) "create incentives and operational pathways for incremental loads planning to connect to the system to more directly support rapid build out of new supply to serve their needs"; and (3) "enable more efficient utilization of the grid by increasing demand flexibility." However, PJM's proposed structure does not achieve these goals because it does not address the contracting risk and interconnection challenges that will impede large loads from connecting as rapidly as possible and contracting with new supply to serve their needs and enable flexibility.

[7] *See* Large Load Additions PJM Conceptual Proposal and Request for Member Feedback (Aug. 18, 2025).

[8] *Id.* at 10.

to deliver resource adequacy for the region as a whole, inclusive of large load customers, at an acceptable price.

Accordingly, while PJM's proposal seeks to induce voluntary NCBL arrangements, without modification the proposal will fail to achieve this goal. Large loads such as data centers can only achieve the level of flexibility PJM needs to avoid reliability issues and shortage via co-located or otherwise dedicated supply. But the proposal fails to address contractual risks that impair the commercial value of these arrangements for both participants. Nor, as discussed further below, does PJM propose any concrete modifications to its interconnection process to encourage the rapid development of self-supply resources.

Eolian recommends that PJM modify its proposal to include within scope the full set of tariff changes necessary in order to induce voluntary NCBL election by large loads, including a more certain investment horizon and workable self-supply arrangements.

**The proposal appropriately suggests interconnection queue enhancements are necessary to provide for the rapid integration of resources necessary to serve large loads, but does not include any specific proposals in this regard**

Another potential mechanism to facilitate voluntary self supply from co-located resources would be for PJM to provide for accelerated interconnection pathways for resources to serve large loads. But PJM does not include any specific ideas to achieve these goals.

PJM should initiate a process to provide for such measures to be rapidly developed. For example, as outlined in *Accelerating the Integration of New Co-located Generation and Loads*, an Energy Park Integration (EPI) study process could rapidly integrate loads paired with supply resources, while enhancing system reliability and affordability for other customers.[9] SPP has demonstrated, through its High Impact Large Load Generator Interconnection Assessment (HILLGA) proposal, that it is possible to jointly study interconnection requests from load and particular supply resources being developed to serve that load.[10]

Studying load and generation in a more integrated process and allowing suppliers to dedicate their capacity delivery to particular loads offers many potential efficiencies. For example, deliverability analysis to the full PJM system should not be necessary for such a resource. Rather, much more localized analysis could be adequate to ensure the resource is capable of delivering on its commitments.[11] Integrated study also offers significant potential to reduce the need for transmission system upgrades.[12] This could significantly reduce the network upgrade costs associated with new generation and new load, and could significantly improve speed-to-market for critical new large loads. But to realize that goal, PJM's processes must (1) study

[9] Andrew Levitt et al., *Accelerating the Integration of New Co-located Generation and Loads*, at 8-9 (Apr. 2025).
[10] *See generally* SPP, Revision Request 696. While the tariff changes proposed in this RR are still subject to stakeholder feedback, it is Eolian's understanding of SPP's intent that the HILLGA schema enable load and generation to be paired for accelerated interconnection purposes when the impact on the broader system is demonstrably minimal.
[11] For example, SPP proposes to offer an interconnection pathway for generation resources paired with large load that are located at a common bus or in the same local area, and to be studied accordingly. *Id*
[12] *See Accelerating the Integration of New Co-located Generation and Loads*, at 11-21 (Apr. 2025).

988 Howard Ave Suite 200
Burlingame, CA 94010
eolianenergy.com

supply and associated load in a coordinated fashion; and (2) enable co-located supply to reduce a load's transmission system needs. PJM could also encourage load to develop with co-located supply by providing for a new curtailable transmission service reflecting the reduced service needs associated with co-located self supply arrangements subject to curtailment when the co-located resource is not injecting.

PJM should include interconnection reform to accelerate co-located supply arrangements within the scope of this proposal, and reconsider its proposal not to alter its transmission planning process to account for the flexibility and curtailment of NCBL.

Ariel Horowitz
Head of Policy Strategy
Eolian, L.P.
412-848-0930
ariel.horowitz@eolianenergy.com

## Alpha Generation

Alpha Generation appreciates the opportunity to provide feedback on PJM's conceptual proposal as offered at the August 18 Pre-CIFP Workshop.

As an initial matter, Alpha Generation fully supports Vistra's feedback and will limit our feedback and questions to those issues not addressed by Vistra's comments. Recognizing that the NCBL is conceptual in nature, Alpha Generation has additional concerns than those raised in Vistra's comments with regard to potential impacts to PJM markets, planning processes and NCBL implementation.

**Capacity Market**

- As proposed, the NCBL essentially caps the market at the level of supply which runs counter to the current VRR curve design. At this critical time, where the market needs new generation, price caps set by the NCBL will be at levels far below the cost of new entry. As a side note, the proposed starting prices of the VRR curve, currently being considered in the Quadrennial Review process, are far below the true cost of construction of either a combined cycle or combustion turbine.
- It is unclear to us as to how the current RTEP process will interact with the NCBL construct. Are the current load additions being served through the RTEP process considered new or existing for the purposes of the NCBL? With regard to the RTEP, what is the cutoff of new versus existing for the purposes of NCBL? How will the Virginia Data center load be treated?
- One of the drivers of the potential capacity shortfall in PJM is the uncertainty around the development of the 46 GWs of resources with signed interconnection agreements and 11 GWs of RRI projects. Artificially capping the price of capacity through an unrealistic gross CONE currently being contemplated in the Quad Review process or through the NCBL will culminate in the self-fulfilling prophecy of those projects not being developed.
- We would like to understand how the NCBL will work from year to year. Specifically, how unforeseen retirements and deactivations will impact firm non-NCBL. If an EDC has unexpected retirements or deactivations within its territory and there isn't sufficient new supply to replace the retirements/deactivations will the EDC have to designate previously firm load as NCBL?

**Implementation**

- How does PJM envision implementing NCBL with new loads who also bring with it new generation which only partially covers the new load addition? Is it technically feasible to disconnect partial loads? Will PJM require the cutting of NCBL when cutting the NCBL will have no impact on reliability or a lessor impact on reliability if certain "firm" loads are cut?

- How does the NCBL factor into a PAI event being triggered? Can PJM foresee a circumstance where an NCBL load is online during a PAI event? If so, how would that impact the Balancing Ratio. Finally, if it is expected that all the NCBL will be cut during a shortage event, shouldn't that also apply to non-capacity backed exports as well?

**Co-location**

- There is a current co-location docket at FERC. How would a FERC order on co-location impact the NCBL proposal?

McNees Wallace & Nurick LLC
100 Pine Street
P.O. Box 1166
Harrisburg, PA 17108-1166

Susan E. Bruce
Direct Dial: 717.237.5254
Direct Fax: 717.260.1666
sbruce@mcneeslaw.com

August 27, 2025

PJM Interconnection, L.L.C.
Attn: Michele Greening and Matt Connolly
2750 Monroe Blvd.
Audubon, PA 19403

**Re: Preliminary Comments of PJM Industrial Customer Coalition on CIFP Scope and PJM Conceptual Proposal**

Dear Ms. Greening and Mr. Connolly:

On August 8, 2025, PJM's Board of Managers ("Board") initiated a Critical Issue Fast Path ("CIFP") stakeholder process for Large Load Additions ("LLA"). According to the Board's announcement letter, the goals of the CIFP process include developing rules for interconnecting data centers and other large loads to its system, with the aim of ensuring adequate resources to meet grid demands.

The PJM Industrial Customer Coalition ("PJMICC") appreciates the Board acting swiftly to develop solutions on these critical topics. In response to PJM's request for stakeholder input at its Pre-CIFP Workshop on August 18, 2025, PJMICC offers the following Preliminary Comments.[1] Especially given the early stage of the stakeholder discussions, PJMICC reserves the right to modify its view of various aspects of the CIFP proposals as additional information is generated throughout the CIFP process.

**Issue #1: Objectives and Scope of CIFP Process**

PJMICC generally agrees with the key objectives of the CIFP process as outlined on page 5 of the Conceptual Proposal presentation.[2] PJMICC particularly emphasizes the goal of achieving more efficient grid utilization through demand flexibility. PJMICC also endorses steps to facilitate the more rapid build-out of new supply to match expanding incremental load.

In PJMICC's view, finding ways to unlock more efficient use of existing infrastructure should be the central focus. Not only is this a key to resource adequacy in the near term, but the value of such an approach magnifies over time, as facility upgrades can be planned in accordance with improved grid efficiencies. In this regard, PJMICC encourages the Board to broaden its perspective to include loads, beyond just data centers

[1] In PJM's *Next Steps and Draft Work Plan* presentation, PJM asks the following: "What issues should be included or out of scope for the CIFP-LLA Issue Charge?" and "What comments would you like to provide on the PJM conceptual proposal?" See *Next Steps and Draft Work Plan*, at 2, available at https://www.pjm.com/-/media/DotCom/committees-groups/cifp-lla/2025/20250818/20250818-item-04---next-steps-and-draft-work-plan.pdf.

[2] The stated objectives are: (1) "Create ways for new large loads to connect as rapidly as possible and … determine a plan for how reliability is maintained in case there is a resource adequacy shortfall"; (2) "Create incentives and operational pathways for incremental loads planning to connect to the system to more directly support rapid build out of new supply to serve their needs"; and (3) "Enable more efficient utilization of the grid by increasing demand flexibility." *See PJM Conceptual Proposal and Request for Member Feedback* ("Conceptual Proposal"), at 5, available at https://www.pjm.com/-/media/DotCom/committees-groups/cifp-lla/2025/20250818/20250818-item-03---pjm-conceptual-proposal-and-request-for-member-feedback---presentation.pdf.

and beyond just new large loads, that may benefit from additional tools to manage their capacity costs in exchange for customers' interruptible capability and ability to shift loads to lower-demand periods. This would be a prudent path, consistent with decades of good utility planning, to address the potential gap between PJM's resource adequacy needs and the system's resources.

To that end, PJMICC recommends that PJM adopt a more inclusive and expansive approach to its Non-Capacity-Backed Load ("NCBL") proposal in this stakeholder process. If well-developed in the CIFP process, NCBL has singularly profound potential to support resource adequacy and grid stability into the future. PJMICC urges PJM to focus on the three stated objectives in the Conceptual Proposal in the CIFP process. Other issues unrelated to the three aspects of the Conceptual Proposal, including potential changes to existing PJM supply-side demand response programs and retail and non-retail behind-the-meter generation ("BTMG") rules, should not be part of this CIFP scope of work.

**Issue #2: Conceptual Proposal for Non-Capacity-Backed Load**

PJMICC commends PJM for presenting the NCBL concept and offers the following initial comments:

A. **Tap into existing load potential to make the grid more efficient.** PJMICC recognizes that any solution proposed by PJM must respect other legal and structural constraints, such as Electric Distribution Companies' obligation to serve new loads, which is rooted in their state franchise arrangements, and Transmission Owners' obligation to accommodate new transmission service requests. To mitigate the need for expensive build-outs, PJM should consider the potential of *existing* large loads to help accommodate additions of new large loads. In particular, the NCBL option should be extended as a voluntary option to both existing loads and new large loads. The NCBL option should be a permanent part of PJM's resource adequacy toolbox and should not be limited to only periods of resource adequacy risk.

B. **NCBL should be made available to smaller loads, where feasible.** The NCBL option should be extended to all large loads, as well as to medium and small loads where feasible. PJMICC questions the proposed 50 MW threshold for a purported "large load." FERC will carefully scrutinize any specific cutoff used to define "large" loads. Stakeholders should consider whether smaller loads could contribute to resource adequacy through the NCBL concept.

C. **NCBL must have appropriate enforcement provisions.** A practical, sustainable NCBL program must provide sufficient assurance that its participants will adhere to its terms, while balancing safety and operational considerations. To that end, any NCBL program should contain the following two components:

    - NCBL customers must have the option, not a mandate, of incurring a manual load dump under the NCBL construct. NCBL customers are uniquely situated to determine whether a manual load dump (as PJM has proposed) does or does not imperil operations and safety. Moreover, NCBL loads may not clearly track to a single breaker. If and in situations where it is an option, the procedures for a manual load dump, or interruption of an NCBL load, must be clear, understandable, and accessible. Reasonable procedures for any interruption of NCBL, such as a required 24-hour notice or notice after the clearing of the day-ahead energy market, may ameliorate safety-related concerns around a manual load dump.

    - NCBL customers should also be given the option of paying significant penalties for non-compliance with interruption orders, instead of a manual load dump. Penalties could be reflective of the high penalties in other energy contexts, such as those for violating Operational Flow Orders on natural gas pipelines.

D. **An accelerated BYOG interconnection process should contain a proximity requirement.** Conceptually, providing an accelerated interconnection for large loads that bring their own generation ("BYOG") has merit. However, an accelerated process should only be provided if the new generation is located on-site or geographically proximate to the new large load (i.e., within a defined distance) such that the output could be delivered directly to the new large load. Supply that is geographically proximate to loads helps minimize transmission build-out and helps avoid congestion challenges. The grid will benefit in the long term if localized generation is accommodated and facilitated. If the new generation is located distant from the new large load, the new generation should go through the "ordinary" generation interconnection process.

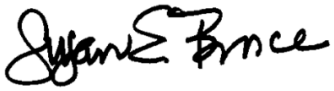
E. **NCBL should not include transmission add-backs.** Any NCBL proposal should not have add-backs for transmission costs. The very nature of NCBL reduces reliance on the transmission system during times of peak usage. To maintain pricing on a just and reasonable basis, NCBL participants should pay for their actual metered use of the transmission system, which would not include an administratively imposed "add-back."

F. **Potential exists for a permanent solution.** While PJM's goal is to submit a filing with the FERC by the end of the year, PJMICC urges PJM to consider the value of NCBL as a permanent solution available to all loads, rather than merely a transitional one to accommodate the anticipated influx of new large loads.

**Conclusion**

PJMICC appreciates the initiative PJM is taking to explore the NCBL concept and other means to accommodate new large loads. From PJMICC's perspective, this topic presents a significant opportunity to develop a comprehensive, long-term tool that effectively addresses the operational flexibility characteristics of large loads, including existing large loads. PJM and its stakeholders should take sufficient time to develop an effective proposal to present to the FERC.

Sincerely,



Susan E. Bruce
Matthew Garber
McNees Wallace & Nurick LLC
100 Pine Street
Harrisburg, PA 17101
Phone: 717-232-8000
sbruce@mcneeslaw.com
mgarber@mcneeslaw.com

Counsel to the PJM Industrial Customer Coalition

August 27, 2025

PJM Interconnection, L.L.C.
2750 Monroe Blvd.
Audubon PA, 19403

***Sent via e-mail***

**RE:** Large Load Additions PJM Conceptual Proposal and Request for Member Feedback

Dear Ms. Greening and Mr. Connolly:

Google appreciates the opportunity to provide feedback on the August 8, 2025 letter from the PJM Board of Managers ("Board") initiating the Critical Issues Fast Path ("CIFP") accelerated stakeholder process and the concepts presented by PJM at the August 18, 2025 Pre-CIFP Workshop.[1] Google owns and operates data centers across the PJM region, including in Virginia, Ohio, and Indiana, and has been actively engaged in discussions with PJM staff and leadership for the past several years around the topic of load growth.[2]

Google shares the concerns articulated by the Board, particularly around the scale, pace, volume, and uncertainty of load growth, and its impact on the reliability, affordability, and security of electricity supply in PJM's footprint. Over the past year, Google has served as a panelist at the Federal Energy Regulatory Commission's ("FERC") technical conferences on colocation[3] and resource adequacy.[4] We have been active participants in multiple large load conferences convened by state regulators, including serving as a witness at the December 2024 large load technical conference held by the Virginia State Corporation Commission[5] and the April 2025 large load workshop held by the Pennsylvania Public Utilities Commission.[6] In these venues and

[1] Letter from the PJM Board of Managers initiating the Crticial Issues Fast Path process ("August 8, 2025 Board Letter"), *available at*: https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2025/20250808-pjm-board-letter-re-implementation-of-critical-issue-fast-path-process-for-large-load-additions.pdf
[2] Locations of Google Data Centers: https://datacenters.google/locations/
[3] *See* Post-Technical Conference Comments of Google LLC, *Large Loads Colocated at Generating Facilities,* Federal Energy Regulatory Commission, Docket No. AD24-11-000.
[4] *See* Pre-Filed Statement of Brian D. George on Behalf of Google, LLC, *Meeting the Challenge of Resource Adequacy in Regional Transmission Organization and Independent System Operator Regions,* Federal Energy Regulatory Commission, Docket No. AD25-7-000.
[5] *See* Pre-Conference Comments of Brian D. George on Behalf of Google, LLC, *Ex Parte: Electric Utilities and Load Growth,* Commonwealth of Virginia, State Corporation Commission, Case No. PUR-2024-00144.
[6] *See* Comments of Brendon Baatz on Behalf of Google, LLC, *En Banc Hearing Concerning Interconnection and Tariffs for Large Load Customers,* Commonwealth of Pennsylvania, Pennsylvania Public Utilities Commission, Docket No. M-2025-3054271.

more, Google has been an ardent supporter of PJM's markets, while also highlighting areas for market design evolution and reform to ensure proper, proactive planning that works for all.

Despite the challenges of the current environment, we continue to be a firm believer in PJM's markets. The region has seen unprecedented investment in new generation resources driven, in large part, by a well-functioning and transparent capacity market, the Reliability Pricing Model ("RPM"). PJM's markets have facilitated access to wholesale suppliers that have enabled Google to execute some of our most innovative commercial transactions, including our partnership with AES Clean Energy to serve our Virginia data centers with *new* carbon-free electricity[7] and a power purchase agreement ("PPA") for 189 megawatts ("MW") of hard-to-find wind in North Carolina.[8] Earlier this month, Google announced a commercial partnership with PJM member utility Indiana Michigan Power ("I&M") to implement demand response for certain machine learning ("ML") workloads in our Ft. Wayne, Indiana data center.[9]

Core to Google's procurement approach, we strive to ensure every new MW of data center load is served with *new* generation capacity. We believe this approach is beneficial to the grid, particularly for the moment PJM is in today; by adding new capacity to serve new load, our procurement approach eases resource adequacy burden. Recently, PJM's generator interconnection queue has been the subject of intense scrutiny and focus, and has challenged our ability to bring additional resources to the grid.[10] Earlier this year, Google, PJM, and Tapestry announced a collaboration to utilize Google's advanced data analytics and artificial intelligence ("AI") capabilities through Google DeepMind to improve the generator interconnection process and reduce interconnection timelines for new resources.[11] We are encouraged by the extensive improvements implemented by PJM. However, as acknowledged by PJM during the August 18 Pre-CIFP Workshop, more can be done to improve generator interconnection.

## I. Feedback on the Board's August 8, 2025 letter to stakeholders.

Google generally agrees with the core concepts raised by the Board in its August 8, 2025 letter, with the following additions: First, Resource Adequacy should explicitly include load forecasting

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[7] *"AES Announces First-of-Its-Kind Agreement to Supply 24/7 Carbon-Free Energy for Google Data Centers in Virginia,"* PR Newswire, May 4, 2021: https://www.prnewswire.com/news-releases/aes-announces-first-of-its-kind-agreement-to-supply-247-carbon-free-energy-for-google-data-centers-in-virginia-301282750.html

[8] *"Google signs onshore wind PPA with Apex in Virginia,"* Data Center Dynamics, January 6, 2025: https://www.datacenterdynamics.com/en/news/google-signs-onshore-wind-ppa-with-apex-in-virginia/#:~:text=The%20PPA%20is%20the%20second,centers%20on%20the%20PJM%20grid.

[9] *"How we're making data centers more flexible to benefit power grids,"* Google, August 4, 2025: https://blog.google/inside-google/infrastructure/how-were-making-data-centers-more-flexible-to-benefit-power-grids/

[10] Google strives to serve all new data center load with capacity from new generation resources located in the same Balancing Authority as our load. https://sustainability.google/stories/24x7/

[11] *"Our investment in AI-powered solutions for the electric grid,"* Google, April 10, 2025: https://blog.google/inside-google/infrastructure/electric-grid-ai/

improvements, and, second, Interconnection Rules should include evaluation of rules that govern both new generation *and* new large load additions.[12] We appreciate the Board's aggressive timeline, but are concerned that in order to properly and thoroughly address each of the concepts raised by the Board, and incorporate any additional concepts raised by stakeholders, the current CIFP timeline and process may prove too restrictive. In that vein, the Board should consider a narrowly-targeted CIFP process to develop a transitional "back-stop" mechanism to address potential resource adequacy insufficiency in the near-term (*i.e.,* the 2028/29 and 2029/30 Delivery Years), and simultaneously direct an aggressive, but achievable, stakeholder process to identify, develop, and ultimately propose reforms to address the broader concepts articulated by the Board and stakeholders over the over the next nine months. We offer an alternative straw proposal for consideration during the initial CIFP process below which would only apply to the 2028/29 and 2029/30 Delivery Years.

### *A. Load forecasting should be included in CIFP scope.*

PJM's markets and planning processes are only as strong as the forecasts that serve as their foundation. New large load additions, particularly data centers and other large computational loads, are inherently uncertain, especially relative to traditional large loads (*e.g.,* a steel production facility) due to their unique operational characteristics. For example, historically, data center loads have had a relatively high and consistent load factor, whereas an AI-driven load may have a less predictable load factor, depending on the use case. Additionally, data center loads have historically ramped into full capacity reservations over time, unlike a traditional manufacturing facility, which are often on at full capacity beginning on day one. Finally, data centers have a track record of increasing efficiency over time with hardware and software improvements.[13] While these characteristics may offer benefits to grid planners, they create additional complexities.

To help address this uncertainty and complexity, Google partnered with utilities, other customers, and stakeholders, to develop revisions to large load interconnection processes at the state-level that require new large loads to put more financial "skin in the game" when requesting to interconnect. Starting with I&M, the Indiana Utility Regulatory Commission ("IURC") approved a unanimous settlement creating stringent new rules, including increased up-front collateral requirements, minimum demand provisions (*e.g.,* take or pay for new capacity requested) over the term of a contract, exit fees, and several others, for new large loads over 70 MW connecting

[12] August 8, 2025 Board Letter.

[13] Google data centers are among the most efficient in the world. The Power Usage Effectiveness ("PUE"), which is a measure of power consumed for computational load relative to ancillary load within a data center, is 1.07 for our Loudoun County, Virginia datacenters: https://datacenters.google/efficiency/. Additionally, Google recently released detailed analysis showing the improved efficiency of Gemini: https://cloud.google.com/blog/products/infrastructure/measuring-the-environmental-impact-of-ai-inference.

to the grid.[14] Since then, utilities across several PJM jurisdictions have filed large load tariff revisions similar to those approved in Indiana that have either been accepted[15] by state regulators or are pending regulatory approval.[16] By the end of this year, it is likely that more than half of the PJM footprint (based on load), and the utilities with the largest current or expected concentration of data center load, will have stringent rules at the retail level governing new large load interconnection requests. These state-level efforts will lead to increased confidence for PJM's load forecast over the longer-term (*e.g.,* five to eight year timeframe and longer).

To help improve confidence in PJM's load forecast, particularly in the near-term, we have developed the attached load forecasting concept, which has been shared with PJM and several other stakeholders (including other load interests and generators), and FERC.[17] The proposal requires new large load additions be subject to financially stringent interconnection rules at the state-level in order to be included in PJM's load forecast. Stakeholder feedback to date has been positive. While we recognize load forecasting requires a balance between state and federal jurisdiction, we believe our conceptual proposal appropriately strikes that balance. PJM Business Practice Manual ("BPM") 19 gives PJM the authority, and arguably requirement, to do this today, and says new large load additions must be "real and significant."[18] PJM efforts to improve load forecasting confidence are complementary to state-level efforts.

Several other stakeholders raised the inclusion of load forecasting in the CIFP process during the August 18, 2025 Pre-CIFP Workshop. The proposal offered here is a good starting point for additional stakeholder input and refinement. We welcome the opportunity to provide further detail and stakeholder education on the load forecasting proposal as part of the CIFP process.

### *B. PJM should explore implementation of a large load interconnection process.*

Given the scale, pace, and volume of large load additions that are interconnecting primarily at the transmission level, the Board should consider reforms that improve PJM's visibility into the location, timing, and size of those specific interconnection requests. Historically, load side interconnection has been managed by utilities and transmission owners, subject to the

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[14] *See Order of the Commission*, Cause No. 46097, Indiana Utility Regulatory Commission (issued February 19, 2025).
[15] Revisions to large load tariffs have been approved by state regulators in the Appalachian Power Company's ("APCo") West Virginia service territory, and in American Electric Power's ("AEP") Ohio service territory.
[16] Both the Virginia Electric and Power Company ("Dominion") and APCo Virginia have large load tariff provisions pending before the Virginia State Corporation Commission; final outcomes are expected by the end of 2025. Additionally, Commonewath Edison ("ComEd") has proposed large load tariff revisions.
[17] *See* Pre-Filed Statement of Brian D. George on Behalf of Google, LLC, *Meeting the Challenge of Resource Adequacy in Regional Transmission Organization and Independent System Operator Regions,* Federal Energy Regulatory Commission, Docket No. AD25-7-000.
[18] PJM Manual 19: Load Forecasting and Analysis, Revision: 37, Effective Date: December 18, 2024, at p. 26. *Available at:* https://www.pjm.com/-/media/DotCom/documents/manuals/m19.

jurisdiction of the states. However, as the number of interconnection requests has increased, so too has the direct impact of those requests on the need for new generation and transmission.

Existing large load interconnection processes, especially in areas with a significant volume of requests, have become overwhelmed and insufficient, and interconnecting customers are facing interconnection times of several years, at best, and unknown times at worst, with little insight into the constraints driving those timelines or how interconnection requests are differentiated among customers.[19] This makes it nearly impossible to make capital intensive business decisions. Further, we are concerned that system planning may be occurring in silos and believe there are opportunities for improvement. As such, there may now be the need for a more structured load-side interconnection process, conceptually similar to the generator interconnection process that works alongside existing state-level processes, to effectively manage large load interconnection at the RTO level.

As a practical example of why such reforms are necessary, reforms aimed at motivating new large load customers to bring their own generation (henceforth referred to as "BYOG") necessitate additional insight into, and management of, transmission-level load-side interconnection requests in order to be effective. For example, suppose a large load customer identifies a new generation resource to serve its demand as a BYOG resource, and that resource helps PJM's overall resource adequacy burden. However, the large load customer is still unable to interconnect new load due to a transmission constraint identified by the interconnecting utility. In many cases, the constraint on new large load interconnection is transmission capacity, *not* generation capacity, particularly in the near-term. In this instance, if a customer brings sufficient generation to match new load but is still unable to interconnect, the benefits of BYOG for large loads are eliminated. Having PJM play a more active and assertive role in transmission-level large load interconnection requests will help address these issues, and is required to make proposals like BYOG effective.

## II. Feedback on PJM's concepts presented at the August 18, 2025 Pre-CIFP Workshop.

As proposed, PJM's concepts will likely fail to incentivize the expected behavior from data center loads, fail to produce desired outcomes, and ultimately fail to address PJM's anticipated resource adequacy shortfall. First and foremost, PJM has not clearly defined what types of load are subject to PJM's proposed new requirements. Throughout the August 18, 2025 Pre-CIFP Workshop, PJM referenced "new" and "incremental" large load; however, this is not an

[19] Earlier this year, Dominion proposed a new batch process to evaluate new large load interconnections of 100 MW or greater to the transmission system. As part of the ongoing biennial review proceeding (*See Application of Virginia Electric and Power Company for a 2025 biennial review of the rates, terms and conditions for the provision of generation, distribution and transmission services pursuant to § 56-585.1 A of the Code of Virginia*, Case No. PUR-2025-00058), additional information is surfacing as to the mechanics of that process. However, the process has increased timelines for new large loads to interconnect to the system.

appropriate or clear designation. PJM should instead look at large loads based on whether an Energy Service Agreement ("ESA") has been executed or not. Large loads subject to an executed ESA are much more likely to materialize than large loads that are not. Finally, as Google articulated on the August 18, 2025 Pre-CIFP Workshop, PJM needs to clearly and explicitly define the "critical large loads" that are excluded from the new requirements.[20]

### *A. BYOG is conceptually appealing but requires additional detail.*

Throughout numerous discussions with PJM, Google has relayed an openness to BYOG, provided it creates an accelerated pathway for new generation and new load to interconnect. Indeed, BYOG is conceptually aligned with our procurement philosophy to serve new load with new generation. Unfortunately, PJM's conceptual proposal lacks sufficient detail for us to adequately evaluate options to participate in a BYOG program. An initial, non-exhaustive list of questions on PJM's BYOG concept are articulated below:

- **BYOG program participation requirements:** What generation resources can qualify for participation in a BYOG program? Do BYOG resources need to match load on a one-for-one accredited MW basis? What are the deliverability timelines expected of BYOG, particularly if the associated large load ramps into its capacity reservation over time? What happens if BYOG is delayed but there is sufficient supply to serve the large load, can the load still interconnect? Does a load need to show full one-for-one MW matching with new generation on day one, or can a load match new generation with the load's appropriate ramp schedule? Could a portfolio of resources participate as BYOG (*e.g.,* a combination of solar plus storage)? How does PJM plan to enforce compliance with BYOG program rules? Does PJM plan to make BYOG a permanent feature of its markets or is it only intended to be in place for a predetermined period of time?
- **BYOG interconnection benefits:** Does generation participating in BYOG qualify for accelerated interconnection studies or expedited interconnection timelines? Are there opportunities to fast-track new generation resources that participate as BYOG, provided that participation as a BYOG resource is non-discriminatory and open to all types of generation? Google is very much open to pathways to expedite new generation.
- **BYOG deliverability and alignment with transmission interconnection:** Does generation participating in BYOG need to be in the same Locational Deliverability Area ("LDA") as the load it's being matched with? What happens when a BYOG resource located in one LDA cannot be matched with a large load in another LDA due to import and export limits between the LDAs (or is not deliverable due to sub-LDA transmission constraints)? What happens if a new load participates in BYOG regime but the large load

[20] Large Load Additions PJM Conceptual Proposal and Request for Member Feedback, August 18, 2025 at slide 12. *Available at:* https://www.pjm.com/-/media/DotCom/committees-groups/cifp-lla/2025/20250818/20250818-item-03---pjm-conceptual-proposal-and-request-for-member-feedback---presentation.pdf.

customer is told by the interconnecting utility that it cannot interconnect due to transmission constraints?

- **BYOG demonstration:** Are there opportunities to show a commitment or pathway to BYOG, via a less binding commercial arrangement than a PPA, subject to the generation resource meeting all of the technical criteria for interconnection? Can generation taking provisional interconnection service participate in BYOG?
- **Impact of ELCC valuation on BYOG:** Underlying any BYOG program is the risk presented by volatile ELCC values. How will PJM mitigate ELCC volatility for BYOG participants?

Answers to these questions will help inform large load customers about their options to participate in a BYOG program to meaningfully address PJM's resource adequacy shortfall, and also expedite interconnection timelines. Such a program has significant appeal for Google, however, we need to see a much greater level of detail than currently exists.

### *B. PJM should accept any DR provided by large loads.*

Google recently announced a new commercial partnership with I&M to have certain ML workloads participate as DR. Importantly, this new capability involves load reduction, as opposed to utilizing backup generation to serve load. Given business requirements and the need to provide our customers with certainty, the number of hours Google can participate as a DR resource is capped. Unfortunately, PJM's current DR rules require a participating resource be subject to an unlimited number of curtailment hours. We have conveyed to PJM that this is unworkable for our current capabilities. We encourage the Board and PJM to pursue reforms to existing DR rules that enable any flexible load, particularly from data center loads, to participate in PJM's markets. Alternatively, PJM could expand the opportunities for additional DR to participate in its markets.

### *C. Significant concerns with mandatory NCBL as proposed.*

Finally, we have **significant** concerns with the proposed mandatory non-capacity backed load ("NCBL") designation for certain (yet undefined by PJM) large loads. Google shares all of the concerns on mandatory NCBL articulated in feedback submitted by the Data Center Coalition ("DCC").

## III. An alternative straw proposal for consideration.

In line with our suggestion for the Board to consider a narrowly-targeted CIFP process to develop a transitional "back-stop" mechanism to address potential resource adequacy insufficiency in the near-term (*i.e.,* the 2028/29 and 2029/30 Delivery Years), we offer the

following straw proposal for consideration. Even with this alternative straw proposal, it is *critically important* that PJM clearly define a) the large loads subject to these new requirements and b) the terms governing NCBL designation. If both of those can be adequately defined, and consensus achieved among stakeholders, PJM could utilize a three step test to determine which large loads should be subject to mandatory NCBL designation:

1. Is the large load backed by an executed ESA? If yes, that load is **not subject** to any additional requirements or PJM's mandatory NCBL designation.
2. Is the large load backed by a PPA or other contractual arrangement with a resource (or resources) located within the PJM footprint? If yes, that load is **not subject** to any additional requirement or PJM's mandatory NCBL designation.
3. If the answer to questions 1 and 2 is no, then a large load must either: bring new generation via the BYOG program, participate as DR, or participate in PJM's voluntary NCBL designation. If a large load does not participate in any of these options, **only then** will it be subject to mandatory NCBL designation.

## IV. Conclusion

Google appreciates the opportunity to share feedback on the Board's August 8, 2025 letter initiating the CIFP process and PJM's conceptual proposals shared at the August 18, 2025 Pre-CIFP Workshop, and we welcome additional opportunities to share our perspectives with the Board, PJM, and other stakeholders.

Sincerely,

Brian George
Sr. Lead, US Energy Markets
Google, LLC
655 New York Ave., NW
Washington DC, 20001
briangeorge@google.com
202-999-0990

**Attachment:** PJM should incorporate a requirement that near-term large load adjustments to the load forecast requested by TOs include only new large load requests that are backed by stringent financial commitments at the state-level that reflect large load customers putting more financial "skin in the game" when requesting to interconnect. This is aligned with state-level efforts underway across the PJM footprint to revise large load tariffs to require more financial commitment from new large loads.

- As part of its load forecast adjustment verification process, PJM should adopt a new protocol stating that TOs requesting load adjustments due to large load interconnections (*e.g.,* 50 MW or greater) must demonstrate that such large load interconnections are backed by stringent firm financial commitments in order to be included in PJM load forecasts used for generation and transmission planning.
- PJM should require 100% of large load adjustments be commitment-backed in near term (under 5 years) load forecasts; forecasts beyond 5 years should allow flexibility in the required percentage of adjustments due to large load interconnections that must be commitment-backed to justify inclusion in the load forecast.
- PJM has the authority under the existing Tariff and Business Practice Manual (BPM) 19 to require this today. Minimal changes to BPM Manual 19 to reflect this more stringent verification process will enhance PJM's ability to accurately quantify real and significant large load additions and increase certainty in the load forecast.
- Through the Load Analysis Subcommittee (LAS), PJM should report the requests that are and are not backed by firm financial commitments at the EDC level. **Because the approach is effectively a reporting obligation for the EDCs and LSEs, and a load adjustment request verification method for the RTO, it preserves the states' jurisdiction over load interconnections as retail service transactions.** The approach provides the states with flexibility to craft appropriate load interconnection standards for their jurisdiction while also improving PJM's load forecast.

**Background and Summary:**

Load forecasting is a foundational input to all utility and RTO planning. To ensure transmission and generation infrastructure is developed in a responsible, timely, and efficient manner, we need to adapt load forecasting methodologies to meet emerging market conditions and adopt best practices to ensure robust and consistent forecasts. Opportunities are both available and exist today to improve transparency at the RTO level and consistency at the EDC level so as to enhance insight and increase confidence in RTO, EDC and TO load forecasts.

It is expected that a significant investment will be required to meet currently forecasted load growth. While LSEs have traditionally borne the risk of accuracy in load forecasting, as we see significant growth from new large loads profoundly contributing to investment needs, it is

appropriate to consider new policies that place the risk of customer-specific forecasting inaccuracy on the individual customer. These policies will protect other ratepayers from exposure to changes in individual customer business plans and are expected to reduce the occurrence of duplicative and/or speculative requests. Requiring load adjustments due to new large load interconnections to be commitment-backed through stringent financial commitment is a proactive approach to load forecasting that standardizes the processes for verifying large load additions before inclusion in PJM's load forecast. It effectively mitigates the equally significant risks of over development of infrastructure and potential stranded costs and under investment in critical infrastructure to accommodate these important sources of economic growth.

Given the volume, scale, and pace of new large load requests particularly over the 3-8+ year timeframe, more is required to ensure that PJM's load forecast is informed by a sound planning signal, backed by financial assurances from new large loads. As is the case with developing any large industrial infrastructure projects, it is reasonable to anticipate some of these proposed facilities will not materialize. Mindful of this fact as well as the new and historic load growth anticipated, PJM, the EDCs/LSEs and state regulatory agencies would benefit from incorporating an approach that affords time to obtain real-world indicators and develop adequate tools to accurately estimate this attrition rate and confidently forecast future energy demand.

Under PJM's Manual 19, PJM must verify that proposed load adjustments are "real and significant." To manage the near term risk of significant capacity and transmission-driven cost increases over the next 5-8 years, PJM should only include in the load forecast requested load adjustments due to new large load requests (50 MW or greater) when the requesting EDC/LSE demonstrates that the large load interconnections are backed by financial commitments.

These financial commitments create "skin in the game" by requiring sponsors of projects with a large minimum peak demand to post a material financial commitment at the time they apply for service from an EDC or LSE, and institutes minimum demand provisions over the term of new ESA contracts. The specifics will vary by state and utility territories based on specific regional circumstances. **Importantly, this would fully preserve the states' authority to continue regulating retail load as they do today.**

The proposal simply refines the process that PJM currently uses to verify large load adjustments before adding them to its annual load forecast. PJM would only accept large load additions into its forecast that are subject to firm financial commitments at the state-level. This approach to load forecasting is a non-arbitrary, non-discriminatory way to inject discipline into PJM's load forecast by ensuring that requesting customers bear the financial risks associated with their demand requests.

DAVID S. LAPP
PEOPLE'S COUNSEL

WILLIAM F. FIELDS
DEPUTY PEOPLE'S COUNSEL

JULIANA BELL
DEPUTY PEOPLE'S COUNSEL

OPC
OFFICE OF PEOPLE'S COUNSEL
State of Maryland

6 ST. PAUL STREET, SUITE 2102
BALTIMORE, MARYLAND 21202
WWW.OPC.MARYLAND.GOV

PHILIP L. SUSSLER
SENIOR ASSISTANT PEOPLE'S COUNSEL
PHILIP.SUSSLER@MARYLAND.GOV

# Preliminary Comments of the Maryland Office of People's Counsel To PJM's Critical Issue Fast Path Initiative. Conceptual Proposal for Large Load Additions.

**Aug. 27, 2025**

The Maryland Office of People's Counsel ("MPC") submits the following general comments regarding the accelerated Critical Issue Fast Path ("CIFP") initiative for large loads described in the letter from the Chair of the PJM Board of Managers, dated Aug. 8, 2025, and as further described in the PJM presentation entitled "Large Load Additions PJM Conceptual Proposal and Request for Member Feedback", dated Aug. 18, 2025. As the CIFP progresses toward the intended December, 2025 FERC filing date for the CIFP Initiatives' deliverables, MPC reserves the right to comment further on the CIFP initiative and its evolution.

MPC agrees with PJM that the on-rush of large load additions to PJM's load forecast, primarily due to data center developments, is unprecedented in its absolute and relative scale. These large load addition forecasts are accompanied by very large uncertainty about their accuracy (and consistency across the PJM footprint). PJM's load forecast, in turn, is a fundamental building block of both PJM's capacity market construct (the "RPM") and transmission planning. The large load additions will also have impacts on PJM's energy markets.

PJM's current rules for both the RPM and transmission planning and its forecasting of load will lead to intolerable adverse impacts both on the affordability and reliability of electric service and the equity of allocation of these impacts across the PJM footprint. MPC supports PJM's commencement of the CIFP directed at formulating changes to PJM's rules (which should also include those affecting transmission planning). These changes must entail thorough and comprehensive re-thinking and reform. To accomplish such fundamental reform, PJM should be more ambitious, as detailed below, in the conduct of the CIFP and its planned outcomes.

Echoing and adding to the issues raised in the PJM Chair's letter, large load (data-center driven) additions have and will have very adverse impacts on electric affordability and reliability within the PJM footprint. These impacts include the following:

- Large loads (primarily data centers) have massively impacted PJM's load forecast. The PJM 2025 annual forecast projects an increase in PJM's 50/50 summer peak demand from 151 GW (2025) to 184 GW (2030) to 201 GW (2032) - a cumulative increase of 33% or 48 GW between 2025 and 2032. 48 GW is approximately the peak load served by the California Independent System Operator.
- Filings by individual transmission owners (TOs) this year with the PJM Transmission Expansion Advisory Committee (TEAC) reveal many more 1000s of MWs of load for supplemental projects driven by new data center load. These new loads are likely to be included in PJM's annual 2026 load forecast, adding to the already very large increases incorporated in the 2025 annual forecast.
- The major reason for these load forecast increases is data center development, in particular localized areas of PJM.[1]
- Recent and increasing commentary and review of data center development raises serious questions about the robustness of data center load forecasts and their speculative nature.[2] Accordingly, there is a substantial risk that building the electric grid to meet the forecasts may result in large amounts of stranded costs charged to residential and other customers whose consumption is not driving these costs.
- PJM's outsized load forecasts are the major driver of current and pending drastically adverse impacts on the cost of wholesale power. Specifically: (i) PJM's 2025 load forecast increase was a major driver of the 800% plus increase in capacity prices between delivery years 2024/2025 and 2025/2026 and 2026/2027; (ii) the data center load growth caused increases in the PJM 2025 load forecast

[1] Monitoring Analytics, *Analysis of the 2025/2026 RPM Base Residual Auction, Part G* (June 3, 2025). *Compare*, Table B-9 (Large Load Adjustments) to Table B-1 (50/50 Summer Peak Load) (PJM 2025 Load Report) (large loads, primarily data center loads, comprise above 90% of the increase in forecasted RTO total peak load for each year, 2026-2032).

[2] *See, e.g.*, London Economics International, *Uncertainty and Upward Bias are Inherent in Data Center Electricity Demand Projections* (July 7, 2025).

(and immediately prior and the pending PJM 2026 load forecasts) are driving billions in capital expenditures on transmission facilities.

- New generation resource entry remains insufficient and not timely to address the scale of load growth caused by data centers, notwithstanding PJM's efforts to stream-line its interconnection queue and through its Reliability Resource Initiative, approved in FERC docket No. ER25-712.[3] Further, new generation cannot be built as fast as data centers can be built, exposing a mismatch between projected demand and supply that even PJM's best efforts cannot overcome.

These impacts demand proactive and ambitious policy responses to address affordability, reliability, and fairness considerations. MPC urges PJM to consider and embrace the following concepts within the CIFP process.

1. PJM should establish and facilitate rules, procedures, and cost allocations that require large loads to source new local generating resources.[4] The overriding principle should be as follows: *No interconnection for large load additions absent the coupling of their related service requests with new locally sourced generation sufficient to meet their electric demand.* This necessary principle is anchored in the failures of PJM's current practices to address the scale and timing of large load additions. Specifically, PJM's existing rules, procedures, and cost allocations for the conduct of its capacity market procurement and transmission planning are down-stream reactive responses to unconditioned customer service requests that are anachronistic when it comes to the scale and timing of forecasted large load additions.

2. Coupled with item 1 above, PJM should adopt a framework for the management of large load additions through a PJM-supervised and managed queue process, similar in many respects to that currently required for generating resources. The queue process should manage both the locational and regional feasibility of connecting large loads to the electric grid (both for purposes of the RPM and for transmission planning).

[3] *PJM Interconnection, LLC*, 190 FERC ¶61,084 (2025).

[4] We continue to evaluate the impact on existing customers of the potential treatment of large load as "non-firm" load.

3. PJM should also adopt procedures to assure much greater uniformity, consistency and rigor for incorporating large load additions into the PJM load forecasting process.

4. PJM should also consider rule reforms to address the adverse energy market impacts of large load additions.

MPC notes that some will argue that full and proper consideration of these issues may technically be deemed "out of scope" for consideration by the CIFP in line with PJM's customary gradual incremental policy development. Given the outsized dimensions of the challenges faced by PJM due to forecasted large load additions, PJM, to be effective in meeting the moment, needs to be more ambitious in its efforts, which, in turn, requires consideration of these issues.

PJM should also consider and prioritize changes to its current rules, overlapping in impact with the CIFP subject matter, in coordination with the conduct of the CIFP. If these additional matters discussed below in these comments are left to be dealt with under PJM's current rules, even as updated under PJM's current stakeholder processes affecting the RPM and PJM's transmission planning, they will be inadequately addressed in silos, without the necessary holistic consideration together with the CIFP. Without this coordination, the postulated extreme adverse impacts on affordability and reliability resulting from forecasted large load additions may not be avoided. Without this holistic consideration (or at a minimum the coordination of the CIFP with the other stakeholder processes), the ability to make reasonable judgments about the CFIP process and its outcome based on its potential impacts on cost and reliability will be foreclosed.

Among the areas needing consideration within or coordination with the CIFP are the subject matter under consideration in PJM's current stakeholder processes addressing the Quadrennial Review and Effective Load Carrying Capacity ("ELCC").

Among the specific issues under consideration in the Quad Review and ELCC overlapping with the subject matter of the CIFP are the following:

1. Quadrennial Review –
    - Definition of qualified "load" defining the reliability requirement.
    - Incorporation of CIFP recharacterization of qualifying load, excluding non-firm load from the reliability requirement procured under the RPM.
    - Quantification of level of reliability/risk of outage for non-firm load if not used to meet RPM reliability requirement target.

- Compensation required from qualifying non-firm load if not "served" by PJM capacity market.

2. ELCC –
    - Inadequate recognition of "regime switches/changes" in operating rules (e.g., conservative operations in winter, capacity performance).

MPC appreciates the opportunity to comment on PJM's CIFP initiative to address large load additions. MPC intends to engage with and comment further, as deemed necessary and appropriate, on the CIFP initiative as it progresses.

**OFFICE OF THE ATTORNEY GENERAL OF THE STATE OF ILLINOIS**
**MEMORANDUM**

**To**: Michele Greening, Chair, Critical Issues Fast Path – Large Load Additions
Matt Connolly, Secretary, Critical Issues Fast Path – Large Load Additions

**From:** Susan L. Satter, Chief, Public Utilities Bureau
Scott Metzger, Senior Assistant Attorney General
Kimberly B. Janas, Counsel to the Attorney General

**Date**: August 27, 2025

**Re**: Feedback on PJM Critical Issues Fast Path – Large Load Additions: Issue Charge and PJM Conceptual Proposal

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## I. Introduction

The Office of the Illinois Attorney General on behalf of the People of the State of Illinois ("IL OAG") appreciates the opportunity to provide initial feedback on the PJM Critical Issues Fast Path – Large Load Additions ("CIFP-LLA"). IL OAG represents the interest of Illinois ratepayers in the provision of public utilities, including electric service.[1] For the more than 4 million customers in Illinois served by PJM in its ComEd zone, affordability and reliability of their electric service are primary concerns especially considering the recent results of the PJM Base Residual Auctions ("BRA") and other price pressures. The addition of unique and extraordinary large loads has put pressure on the electricity markets, resulting in higher prices for all PJM customers and raising questions about sufficiency of supply.

We offer these comments, which can be attributed to the Office of the Illinois Attorney General.

## II. IL OAG Comments on Issue Charge for CIFP-LLA

### A. The objectives of the CIFP-LLA should include the impact on ratepayers and preventing socialization of large load costs across customer classes that are not causing the related costs.

[1] 15 ILCS 205/6.5.

PJM's current draft objectives of the CIFP-LLA focus only on serving extraordinary large load instead of identifying the multiple impacts of extraordinary large loads on the grid and on costs and prices, and the problem of shifting costs to the 67 million ratepayers of PJM. This omission of the effects on ratepayer costs is significant and unreasonably limits the scope of the process and potential solutions. The conclusion of PJM's Independent Market Monitor ("IMM") that the influx of extraordinary large load resulted in an increase in the 25/26 BRA revenues of over $9 billion dollars demonstrates the extensive impact of anticipated extraordinary large load customers on the grid, customers, and the economy as a whole.[2] The price increases extend to energy prices as well.[3]

We understand that the PJM BRA is designed to produce a price signal to incentivize the development of new generation. However, the future load growth identified by PJM is driven in large part by customers with energy needs of such a magnitude that the investment needed to serve them cannot be met by creating a potential price signal to incent incremental new generation. Due to both the nature of this new load – caused by companies that require copious amounts of power to create and run artificial intelligence (AI) – a new approach to capacity must be within the scope of this CIFP.

Treating data center large loads as if they are the same as traditional load or organic load growth that PJM has used the BRA to address ignores the unique nature of this load. Importantly, it will likely result in unsustainable and unaffordable electricity charges for customers who rely on federal markets to produce just and reasonable rates. Thus, PJM must put ratepayer concerns about affordability as well as potential solutions to address this unique load growth at the forefront of its objectives for the CIFP-LLA.

### B. The objectives of the CIFP-LLA should explore how to most fairly and effectively connect large loads and not necessarily conclude that it should occur as rapidly as possible.

PJM's first draft objective prioritizes connecting large loads "as rapidly as possible and at the same time" and consequently, requiring a plan for how to maintain reliability in case there is a resource adequacy shortfall. This focus is too narrow and presupposes the outcome. IL OAG questions whether the simultaneous and rapid connection of large load should be the core objective. Rather, a more prudent objective and scope would be consideration of how extraordinary large loads can and should be connected given their unique characteristics, PJM's load forecasting assumptions and practices, the effect that large load forecasts have had on electricity prices to date, the accuracy of large load addition projections, and whether changes in load forecasting, possibly combined with other changes to the BRA, can address the obstacles to connecting this load while protecting customers from large load related costs.

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[2] *See* Monitoring Analytics, Analysis of the 2025/2026 RPM Base Residual Auction Part G, June 3, 2025, p. 1, 14, Tbl. 7, https://www.monitoringanalytics.com/reports/reports/2025/IMM_Analysis_of_the_20252026_RPM_Base_Residual_Auction_Part_G_20250603_Revised.pdf.

[3] *See* Monitoring Analytics, 2025 Quarterly State of the Market Report for PJM: January through June p. 18-26, Tbl. 1-9, https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2025/2025q2-som-pjm-sec1.pdf.

Instead of deciding now that large load additions should be connected rapidly and at the same time under current rules and moving on to how to accomplish that objective with relatively small tweaks to the BRA, IL OAG believes that the objective and goals of this process should be widened. For example, this process should explore other ideas, including but not limited to:

- an assessment of the likely actual pace of adding these loads,
- the possibility of a separate large load queue,
- the role of bilateral contracting of new supply and the expressed agreement among data centers that their costs should not be borne by other customers, and
- changes to how the load forecasts used in the BRA are developed and used.

### C. The objectives of the CIFP-LLA should clearly include an exploration of ways for extraordinary large loads to bring their own generation.

PJM's current draft of the CIFP-LLA objectives references the creation of "incentives and operational pathways" for "incremental loads" to support "new supply" to serve "their" needs. IL OAG believes that this statement obliquely references the concept of requiring a large load customer to bring its own generation ("BYOG"). IL OAG believes that this objective should be more clearly articulated as within the scope of this process, including the possibility to require extraordinary large loads to procure their own capacity (and energy) without any "incentives."

At this point, it is unclear why new supply for extraordinary large load additions needs to be incentivized, especially given the unique nature of the entities that are bringing large load additions onto the system, unprecedented capacity prices that are already providing huge profits to generators while burdening the public, and the understanding that "incentives" are a form of cost-shifting that are paid by other customers who do not cause these loads or benefit from their addition to the grid. PJM should not be different from other markets: when demand requires supply, there is sufficient "incentive" for the parties to enter into contracts that appropriately value the service needed. Given the nature of the demand and the resources of the parties driving this unique growth, deferring to the interested parties will (1) accommodate the willingness of data centers to avoid imposing costs on other customers and (2) allow data centers and generators to set prices that reflect their needs and abilities.

Further, the concept of BYOG should not be limited only to "incremental" or new large load. PJM markets are already being driven by existing and forecasted large load. In addition to driving up prices, large load forecasts present the risk that contracts with existing generators (e.g. collocated service) will siphon power from the grid and leave customers who rely on grid power vulnerable to scarcity pricing and possible shortage. These issues are facing PJM and customers today and should be part of this process.

## III. IL OAG Comments on PJM Conceptual Proposal

### A. The "pillars" of PJM's Conceptual Proposal are limited to the general framework of the BRA and fail to consider other, more significant changes to

**address the unprecedented issues presented by extraordinary large load additions.**

IL OAG continues to evaluate the PJM Conceptual Proposal outlined by PJM in the pre-CIFP-LLA meeting. One primary issue with the "pillars" identified by PJM as supporting this initial conceptual proposal is that these pillars are all derivative or part of the existing BRA framework. We agree with the PJM IMM that this large load growth is "unique, unprecedented and uncertain." Consequently, IL OAG believes that the potential solutions going forward to address large load growth require a broad scope and a new approach that should not be limited by the existing BRA structure.

IL OAG understands and appreciates that the PJM Conceptual Proposal represents initial thoughts to address a complex problem facing PJM as a Regional Transmission Organization ("RTO"). As the pillars supporting the conceptual proposal address changes to the BRA with the introduction of the Non-Capacity Backed Load ("NCBL") concept, and include further changes to the interconnection queue, and new demand response, these pillars appear to grow out of the same assumptions and rules governing the BRA that are not currently able to fairly or effectively respond to the influx of extraordinary large load.

Rather, IL OAG maintains that PJM and other stakeholders need to develop ideas to address extraordinary large loads that are beyond the four corners of the existing BRA and/or expand upon existing reliability mechanisms to meet the challenges posed by extraordinary large load additions. For example, one concept to address the reliability and costs concerns posed by extraordinary large load additions is a separate capacity market only for extraordinary large load (more than 50 MW) utilizing only the excess capacity available after the BRA is run. The price set in such a segmented market would provide a targeted price signal to both extraordinary large load customers and generators. Extraordinary large load customers could also work with PJM to implement a Request For Proposals process for new generation to serve extraordinary large load.

PJM's current tariff contains a "reliability backstop" mechanism allowing PJM to investigate capacity shortfalls if certain conditions are met for three consecutive delivery years and also implement a Reliability Backstop Auction.[4] This existing mechanism to address reliability may provide a way to build upon an existing tariff mechanism that was designed for extraordinary circumstances and apply it more directly to the extraordinary large load additions that are currently forecasted.

Further, potential solutions may also include considering ideas or changes that are not within the existing jurisdiction of PJM. For example, NERC has recently published a white paper detailing several concerns about large loads and their impact on the Bulk Power System.[5] While part of the solution to extraordinary large load additions may lie outside of PJM's jurisdiction, a comprehensive and effective response means that PJM and its stakeholders cannot

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[4] *See* PJM Open Access Transmission Tariff, Section 16, Reliability Backstop, https://agreements.pjm.com/oatt/5170.

[5] NERC, Characteristics and Risks of Emerging Large Loads: Large Loads Task Force White Paper, July 2025, https://www.nerc.com/comm/RSTC_Reliability_Guidelines/Whitepaper%20Characteristics%20and%20Risks%20of%20Emerging%20Large%20Loads.pdf.

simply ignore other changes that may need to be considered if those changes involve the reliability responsibilities of entities outside of PJM. While PJM has a defined jurisdiction as an RTO, PJM and certainly PJM stakeholders can seek feedback from other jurisdictional authorities and seek to craft multi-faceted solutions to address the challenges posed by extraordinary large load additions. The 67 million customers served by PJM deserve more than a statement that certain solutions are outside the jurisdiction of PJM.

### B. Further discussions of PJM Conceptual Proposals should not be "siloed" to prevent consideration of other potential effects of the proposal.

Finally, to the extent that questions or concerns about the PJM Conceptual Proposals or extraordinary large load generally occur in other PJM stakeholder committees, we request that instead of those questions being left unaddressed or ruled out-of-scope for that particular committee, that PJM note the question or concern and direct the conversation to the CIFP-LLA for follow-up. Of particular concern, we observed that a question related to Non-Capacity Backed Load was raised during the special session of the Market Implementation Committee on the Quadrennial Review held on August 22, 2025. The initial reaction to that line of questioning was to simply say that the inquiry was "out of scope" for the Quadrennial Review discussion.

IL OAG strongly recommends that the intersection of NCBL and potential Quadrennial Review changes should be discussed in this CIFP-LLA process, which was the resulting recommendation at the MIC special session. Put another way, simply stating an issue is "out-of-scope" for a particular meeting is not productive, silos, and potentially stifles important discussion on how to address the unprecedented impact of extraordinary large load additions, the effects of which are extensive and can be expected to come up in conversation at various PJM committees. Acknowledging the potential intersection of the various policy discussions ongoing in various PJM committees and thoughtfully referring the discussion to the CIFP-LLA is an important way to address important issues, avoid missing key issues and potential solutions, while also keeping meetings organized.

## IV. Conclusion

The Office of the Illinois Attorney General is appointed by Illinois law to represent the interest of end-use electricity customers in Illinois who benefit greatly when their electric service is reliable and provided at least cost. We appreciate the opportunity to engage in finding solutions to this unique and unprecedented set of challenges facing PJM in its mission to serve the 67 million customers in its footprint.

**Talen Energy Corporation Comments, Large Load Additions PJM Conceptual Proposal**

Talen Energy Corporation ("Talen") respectfully submits the following comments regarding PJM's Large Load Addition ("LLA") conceptional proposal to create an additional "Non-Capacity Backed Load" service for new large loads ("NCBL proposal"). We appreciate the opportunity to share our comments on this important topic.

Given the forecasted growth in electric demand over the next decade and the need to devise strategies to integrate large loads efficiently, rapidly, and reliably, PJM Interconnection, L.L.C's ("PJM") consideration of resource adequacy and large load additions is timely. It falls far short, however, in legally meeting our nation's policy objective to "facilitate the rapid and efficient buildout of artificial intelligence data centers and infrastructure."[1]

First, PJM's proposal lies outside of its power to impose. Questions of when and how large loads can connect to the distribution system are retail in nature and beyond the jurisdiction of the Federal Energy Regulatory Commission ("FERC") and PJM. Instead, these issues should be addressed on a state-by-state basis, as needed given each state's unique circumstances, through amendments to utility retail tariffs approved by state public utility commissions ("PUCs"), not the FERC.

Even if PJM could overcome the jurisdictional infirmities, the concepts contained in the NCBL proposal create discriminatory conditions on how large industrial loads can connect to the grid and when they can draw power. Instead of discriminating against a single form of demand, PJM should focus on improving load forecasting and a market-based solution that encourages more generation supply to be built so that the "golden age for American manufacturing and technological dominance"[2] can be achieved.

**The NCBL Proposal Exceeds PJM's Authority Because Electricity Sales to Large Load Consumers are State-Jurisdictional**

The NCBL proposal exceeds PJM's authority by establishing a regime where PJM holds the power to withhold electric service unlawfully from certain categories of large load. These decisions are retail actions and are subject to the domain of state PUCs, not RTOs or FERC.

It is well settled that states have exclusive jurisdiction over retail sales of electricity, and generation and distribution facilities, and that FERC's jurisdiction is limited to wholesale sales and transmission of electricity in interstate commerce, the facilities used for such sale and transmission, and rules or practices that "directly affect the wholesale rate."[3] Retail sales and service of electricity to end-use customers are beyond the reach of FERC's jurisdiction and are an issue reserved for the state PUCs to assess and determine.

[1] Exec. Order "Accelerating Federal Permitting of Data Center Infrastructure," 90 Fed. Reg. 35,385 (July 23, 2025).

[2] *Id.*

[3] *See FERC v. Elec. Power Supply Ass'n*, 577 U.S. 260, 278 (2016) ("*EPSA*") (citation omitted); *see also New York v. F.E.R.C.,* 535 U.S. 1, 23 (2002); *Citizens Action Coalition of Indiana, Inc. v. FERC,* 125 F.4th 229, 239 (2025).

Section 201(b) of the Federal Power Act ("FPA") clearly states that FERC's jurisdiction applies to "the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce," but "shall not apply to any other sale of electric energy."[4] This statutory language means states maintain an exclusive zone of jurisdiction over retail sales, which involve direct transactions with end-users.[5] That exclusive state jurisdiction includes retail sales made directly to large, co-located loads, including AI driven data center additions.

PJM's proposed NCBL service is a type of in-front of the meter retail service. Therefore, even in instances where a large load industrial consumer sits merely hundreds of yards away from a generation facility, the industrial consumer is an end-use customer and the sale is retail in nature. Thus, PJM's attempt to determine the type of network service that is available to various categories of large industrial load is an intrusion into the exclusive zone of retail jurisdiction reserved to states.

**PJM Must Solve the Fundamental Issues that Currently Exist With Load Forecasting**

PJM's NCBL proposal is overbroad in its approach and puts the cart before the horse by imposing mandatory curtailment on new large industrial consumers without first solving fundamental issues with load forecasting. PJM and the state PUCs should work together and solve for the immediate problem – a backlog of speculative projects embedded in load forecasts – before they undertake to impose a new, unilateral (mandatory) curtailment requirement on new industrial consumers as a condition to acquiring power. If PJM and the PUCs require new industrial consumer projects to demonstrate the viability of and commitment to their projects, PJM and the market will have a clearer, more accurate picture of a realistic demand curve. Every project counted in the forecast will have been required to provide assurance to load serving entities that the project is in fact coming to fruition. Currently, like countless projects in the generator interconnection queue, many of the industrial consumer projects counted in the load forecast will never materialize.

**Even if PJM and FERC had Requisite Jurisdiction Here, the NCBL Proposal Improperly Discriminates Against New Industrial Large Load**

The FPA expressly provides that public utilities may not "maintain any unreasonable difference in rates, charges, service, facilities, or in any other respect."[6] While "mere differential treatment of two entities does not violate the statute,"[7] "undue discrimination occurs [] if the entities are 'similarly situated,' such that there is no reason for the difference."[8] Further, there must be a "legitimate factor" that justifies a difference in rates or services among similarly situated customers.[9]

Under these authorities, the NCBL proposal impermissibly discriminates against similarly situated classes of consumers. PJM proposes to impose the plan for mandatory curtailment upon only *new* large load industrial consumers as a pre-requisite to allowing that class of consumers to join the grid.[10] As a result, PJM unreasonably distinguishes between new and existing large loads, *i.e.*, similar large industrial load customers that interconnected prior to the proposal are not subject to the same curtailment regime.

[4] 16 U.S.C. § 824(b).

[5] *EPSA*, 266.

[6] 16 U.S.C. § 824d(b); *City of Lincoln v. FERC,* 89 F.4th 926, 935 (2024).

[7] *City of Lincoln v. FERC,* 89 F.4th 926, 935 (2024) (citing *Mo. River Energy Servs. v. FERC*, 918 F.3d 954, 958 (D.C. Cir. 2019)).

[8] *Id.* (internal citations omitted).

[9] *El Paso Natural Gas Co.,* 104 FERC ¶ 61,045 at P 115 (2003) (internal citation omitted).

[10] Large Load Additions PJM Conceptual Proposal and Request for Member Feedback, Slides 8, 11 (Aug. 18, 2025).

Although FERC has "wide discretion" to determine what constitutes undue discrimination,[11] if the NCBL proposal goes into effect it would violate the FPA because it would force at least some new large industrial load customers to take a lower class of less-than-firm electric service purely because they are "new," while in all other ways they are similarly situated to all other large load customers.[12] If PJM moves forward with its NCBL proposal, it must revise the proposal so it treats all categories of load the same and does not single-out and discriminate against new large industrial load over others. This is especially important in the country's race to build and operate new AI driven data center load.

In addition to discriminating between existing and new, the NCBL proposal impermissibly applies only to a specific-sized category of consumer— new load over 50 MW (thinly veiled code for new AI-driven data centers). The NCBL proposal is not a new demand response-like product. PJM suggests that large load industrial consumers have the option to voluntarily elect a non-capacity backed (i.e., less-than-firm) transmission product that is less expensive than firm transmission service. But the option is illusory unless sufficient users "volunteer." Of course, PJM also requires these consumers accept the condition that their load will be shed before participants in the traditional demand response program are asked to reduce their energy usage. None of this is demand response.[13] It is discriminatory load shed and curtailment. It is regulation of retail customers. Demand response is a load determining when it will reduce its own demand, and it is paid to do so. Under its NCBL proposal, PJM chooses when to curtail load on a non-voluntary basis. That is non-firm service, not demand response.

Finally, there is a third layer of discrimination here, between new and existing *generation*. Though worded ambiguously, it appears new large loads may be considered "capacity-backed" (and therefore not subject to curtailment regimes) only if they acquire power from a new generating resource. New large load that contracts with existing generation will be subject to mandatory curtailment. Data centers, however, need stable 24/7 electricity -- and new generation cannot be built in short periods of time. In short, PJM's proposal is a referendum on data center development in sheep's clothing.

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Thank you for the opportunity to provide these comments. This issue is of vital importance to Talen and the reliability of the grid. We believe that any proposal the Board endorses must address these issues in a way that will not only ensure reliability of the grid, but also promote additional growth of essential generation assets in the future.

[11] *City of Lincoln v. FERC,* 89 F.4th 926, 935 (2024).

[12] Large Load Additions PJM Conceptual Proposal and Request for Member Feedback, Slide 8 (Aug. 18, 2025).

[13] Talen supports the enhancement of PJM's demand response program and believes that more emphasis and thought should be placed behind that portion of PJM's proposal.

August 27, 2025

Timothy Horger
PJM Interconnection
2750 Monroe Blvd.
Audubon, PA 19403

**RE**: Large Load Additions PJM Conceptual Proposal and Request for Member Feedback

Amazon Data Services, Inc. (ADS) thanks PJM for the opportunity to comment on the items highlighted in the PJM Board's letter from August 8, 2025. The concepts PJM proposed in the August 18, 2025, Pre-CIFP Workshop Stakeholder Meeting presented several options that, if implemented as drafted, will harm comprehensive transmission planning, create competing capacity products, unfairly discriminate against data centers and other large load customers, and create market distortions that undermine the fundamental principles of efficient market design and reliable system operation. With the significant investment flowing through PJM for data center infrastructure to support new customer demand for cloud computing services, ADS believes this process should be more thoroughly studied among PJM stakeholders rather than be considered under the designation of a Critical Issues Fast Path (CFIP).

ADS launched its first cloud computing service region globally in Northern Virginia in 2006. Since then, ADS has demonstrated a longstanding commitment to economic development throughout PJM announcing multiple billion-dollar investments in Ohio, Indiana, Pennsylvania, and Virginia. Since 2020, Amazon has been the world's largest corporate purchaser of renewable energy annually. By the close of 2024, ADS enabled more than 104 energy generation projects in PJM alone.

Data centers provide critical services that support local and global businesses, essential services and critical functions (*e.g.*, transportation, banking and commerce, hospitals and medical care, first responders, government agencies), through cloud services that securely host customer data, that support national security interests and expand the use of generative AI and Machine Learning workloads. These services make up the backbone of both the U.S. and global economy, ensuring business and critical services can function without interruption. With this in mind, ADS strongly encourages PJM to consider integrating the following challenges in order to establish a foundational understanding of anticipated load, improve forecasting, and promote improved system reliability.

- **Improve Forecasting to More Accurately Understand Demand Growth, Needed Infrastructure Investments, and Protect All Customers.** Current market challenges highlight a critical need for PJM to enhance its load forecasting methodologies and increase transparency in its planning processes. The rapid electrification occurring across society, within manufacturing, commercial sectors, transportation, and heating, coupled with the growth of data centers and other emerging high-load industries, demands more sophisticated forecasting approaches. Improved data sharing between the large load

customer, the load serving entity and PJM in the forecasting process could lead to more accurate predictions of load growth. PJM's own planning documents and stakeholder feedback acknowledge the high level of uncertainty around some projected large loads, including non-firm data centers and AI requests that carry a high degree of uncertainty. Strengthening screening and documentation processes for these speculative projects would ensure they do not inflate demand forecasts or drive unnecessary transmission and capacity procurement. Improved forecasting will also provide better inputs for planning new transmission and generation needed to serve new load.

- **Maintain Voluntary Procedures for Customers Able to Support the Development of Generation Within an RTO.** While we recognize the concerns, a requirement for large load customers to provide their own generation capacity raises serious market efficiency concerns. Such a requirement would be inconsistent with PJM's open-access market structure, could create barriers to entry, and risks unintended consequences by shifting system planning away from a transparent, least-cost framework that benefits all customers to complicated planning that could drive up costs. Currently, the more effective way to protect consumers and ratepayers is through accurate forecasting and fair cost allocation. While self-generation can provide valuable system benefits, mandating it could create a parallel capacity market that competes with, and potentially undermines, the existing capacity market structure. ADS enabled the delivery of new generation, continued operations, and new investments in existing generation across the PJM portfolio. ADS has worked with developers, generators, and utilities in PJM through a wide array of structures under the current landscape, including long-term agreements with assets that have capacity rights (*e.g.,* solar, wind, battery storage, nuclear, and thermal), long-term energy services agreements, special contracts, and tariffs. Any PJM proposal related to new capacity structures must recognize the substantial investments that customers like ADS have made to date and not disincentivize similar investments, which have been integrated fairly and efficiently, to improve the grid for common benefit.

- **Ensure Proposals Maintain Fair Customer Treatment.** Obligating large load customers to bring their own generation, developing mandatory or voluntary non-firm service, and establishing demand response requirement would unduly burden a specific customer class without considering the various business models that exists among large load customers. The non-firm service product creates a two-tiered system where some customers receive preferential treatment in transmission planning and cost allocation. Further, this proposal falls short of solving the resource adequacy challenges currently existing within PJM. Instead, PJM should consider proposals to further refine its generation interconnection process by incorporating AI products and services to improve efficiencies and accelerate both generation and load energization.

- **Encourage Development of Voluntary Demand Response Products for Interruptible Customers.** The proposed mandatory demand response requirements for large load customers presents operational challenges that do not necessarily align with commercial realities and existing permitting regimes. Many data center customers require continuous,

reliable power supply and cannot readily curtail usage nor can ask our customers to curtail cloud computing services. Outside of the financial and reputational harm this could cause to cloud providers, there are very real societal, economic, and individual consequences that could result from disruptions in service for commerce and the broader economy; the delivery of vital services from financial services to healthcare to transportation; and even key government functions. Instead, we encourage PJM to separately consider voluntary flexibility and demand response frameworks. Such programs should be provided as a voluntary option for customers.

PJM's proposal will create market distortions that undermine the fundamental principles of efficient market design and reliable system operation. Instead, ADS encourages PJM to reconsider its CIFP proposal and instead provide stakeholders with a more holistic conversation that properly considers forecasting improvements, strengthens regional transmission planning requirements, refinements to interconnection that support greater resource adequacy, and opportunities to voluntarily bring energy resources in exchange for accelerated load interconnection timelines.

Best Regards,

**Brandon Oyer**
Vice President
Amazon Data Services, Inc.

*Intro*

MN8 Energy is an independent power producer with nearly 4 GW of operational solar and several hundred MW battery energy storage projects across the United States, including more than a dozen projects operating in PJM today and many more in its queue. We appreciate the opportunity to provide comments on PJM's initial CIFP-LLA proposal.

PJM has proposed the CIFP-LLA to address the complications that are arising from rapid and unexpected load growth, mostly driven by new large load additions (LLAs) from data centers. These complications are 1) increased costs to consumers and 2) resource adequacy (RA) outcomes that fall below that 1-in-10-day reliability standard, both of which are caused by unanticipated demand increases that have outpaced the rate of new entry for supply.

In light of this challenge, it is appropriate for PJM to consider changes to the status quo. In the process of doing so, PJM and its stakeholders should prioritize non-discriminatory interventions to mitigate the cost and reliability concerns as much as possible. To the extent that PJM and its stakeholders do move forward with discriminatory actions (e.g., differentiated treatment of "new" versus "existing" loads, reliability queues), such actions should be temporary, minimize adverse impacts to other market participants, and avoid undue discrimination.

*The scope of the CIFP-LLA should include transmission as well as RA solutions*

New loads seeking full network service will be challenged not only by RA constraints (i.e., the addition of the load would cause PJM to fall short of its 1-in-10 standard), but also, and likely more often, by transmission constraints (i.e., the new load cannot be reliably served until transmission upgrades are completed). The new transmission infrastructure needed to interconnect these new loads will also drive substantial new costs in PJM. By requiring that LLAs be "capacity-backed" when PJM's supply is at or below the reliability requirement, PJM's proposal is implicitly designed to address resource adequacy (RA) constraints. However, it does not address transmission constraints and costs, which are also of concern for LLAs, TOs, and ratepayers. As PJM considers reforms throughout this process, it should keep both of these challenges in mind.

*PJM should reduce the size of the problem with improved planning practices and voluntary solutions*

PJM should avoid discriminatory actions to the greatest extent possible. First and foremost, this requires capturing the size of the challenge correctly by developing as accurate a load forecast as it can.

PJM and TOs should standardize the large load interconnection process and implement basic commercial readiness requirements (e.g., site control requirements and financial security) to curb speculative load requests from the queue. This may reduce the volume of MWs that need to be served with new transmission and RA and would reduce stranded cost risks to ratepayers. While this is largely under the jurisdiction of TOs and state utility commissions, PJM can send a strong incentive for them to make these changes. For instance, PJM might only incorporate load requests that meet certain minimum maturity and financial deposit requirements into its load forecast. This will also increase transparency and predictability for impacted stakeholders, creating a clearer bar for what is and is not in the load forecast, and reducing concerns about "black box" adjustments to load forecasts made by PJM.

PJM should incentivize resources to voluntarily mitigate the challenges being faced, whether through Non-Capacity-Backed Load (NCBL), Bring-Your-Own-Generation (BYOG), and/or Demand Response (DR) programs, through "carrots" as opposed to sticks wherever possible. Following SPP's example[1], PJM should look for ways to accelerate time-to-market in exchange for an LLA committing to one or more of these voluntary solutions.

As it considers these voluntary mitigations, PJM should aim to design them in such a way that is likely to result in their uptake. For example, an unbounded NCBL option is likely to be difficult for large loads to use. Without limits on how frequently a load may be curtailed, and a system for giving loads some "heads up" for when such curtailments are coming, they are unlikely to use this program. PJM should explore an interruptible load service option that limits the number of times it can be curtailed over a given period(s) (e.g., a "partially-capacity-backed" load) and guarantees a minimum notification period in advance of curtailments. The upper bound on curtailment may depend on the specific characteristics of the transmission and/or RA constraint in question. The capacity value of PCBL could be determined as a unit-specific DR product using PJM's ELCC model.

Finally, LLAs should always be able to accept a later in-service date for full capacity backed/networked load status. Under PJM's current proposal, it seems that LLAs that do not elect the NCBL, BYOG, or DR options may be unable to get any firm in-service date. Similar to generation interconnection, PJM and the TOs should always give the load a firm date when it can be interconnected, based on the lead time needed to construct transmission upgrades and/or a forecast of when there will be sufficient RA to serve the load.

[1] SPP High Impact Large Load Policy, August 14, accessed via MOPC meeting materials https://spp.org/spp-documents-filings/?id=485095

By firming up the load forecast, creating positive incentives to alleviate RA and transmission constraints, and offering the option for a later in-service date, PJM may find that the volume of NCBL MWs that it needs to mandate is much smaller than if it forgoes these actions.

*BYOG program design should focus on RA attributes and minimize adverse impacts*

"Generation" does not appear to be defined in PJM's BYOG proposal. In general, any such tool should be technology-agnostic and geared toward sourcing the attributes necessary to address the problem PJM is aiming to solve. For instance, if the problem is RA, then LLAs participating in BYOG should be required to bring at least an equivalent amount of UCAP to the market as their load adds to the reliability requirement.

BYOG should minimize adverse impacts on already-queued generation. If a reliability queue is needed to get generation online faster than the Open Access queue or surplus IX queue can provide—we think that it generally should not be, particularly once PJM gets through the transition process—then PJM should employ an interconnection study process that does one of the following:

a. If reliability resources are added to an ongoing cluster, PJM should develop a counterfactual case that determines IX costs for the ongoing cluster as though the reliability resources were not there, and use the results of the counterfactual to hold the prior-queued projects harmless in IX cost allocation.
b. If reliability resources are studied separately but concurrently with an ongoing cluster, PJM should ensure that all prior-queued projects are included in the models to ensure that prior-queued projects are not deprioritized in awarding residual transmission capability.

*Better forward planning can mitigate the need for this in the future*

Ideally, LLAs would be anticipated and planned for in advance, allowing all loads to get service in a non-discriminatory fashion and the standard interconnection queue to be used to bring on the new supply needed. States and utilities should take a more pragmatic approach to hedging retail exposure through a mix of RFPs, bilateral contracts, and market purchases as was intended under the Base *Residual* Auction. While uncommon in PJM, this would entail more forward resource planning and longer-term procurements, which is compatible with PJM's current wholesale market designs. PJM should also take steps to incentivize a more robust forward procurement environment. Two solutions here might be 1) moving to a prompt capacity auction and 2) avoiding constant rule changes, particularly those that undermine market integrity such as the last-minute changes to capacity market price formation (e.g., the current price collar).

Earth Justice and the Natural Resources Defense Council (Public Interest Organizations) thank PJM for this opportunity to comment on the Large Load Additions PJM Conceptual Proposal presented on August 18, 2025.

These comments present an alternative "Bring Your Own Capacity" model that only obligates PJM to provide firm service (i.e. capacity) to support the intrinsic load growth of its LSEs. New large loads will only receive interruptible service from PJM until they add new capacity (which could include generation, storage, demand response, or reductions in capacity need from load shaping efforts) to the system equal to the amount of capacity needed to serve them. This "Bring Your Own Capacity" approach will ensure that capacity market prices are just and reasonable, while also preserving reliability against resource adequacy challenges associated with large loads deploying more quickly than supply can be built to serve them.

Our comments cover these major areas:

1. Because PJM's proposal focuses nearly exclusively on protecting reliability, it does little to protect the public from an extended period of very high capacity costs driven by large loads. We propose changes to keep capacity prices just and reasonable by making new large loads responsible for bringing new capacity to serve their needs and preventing the public from taking on the risk associated with purchasing capacity for speculative large load projects.

2. Some version of PJM's Non-Capacity-Backed Load ("NCBL") proposal is likely to be necessary as system load exceeds capacity. However, we urge that PJM use existing demand response products and load-shed protocols to meet these needs. We believe this is preferable for reliability, legal, and practical reasons. We propose an alternative that boils down to strongly encouraging retail regulators to create retail tariffs that enroll large loads in PJM's existing demand response system, and calls upon existing load shed rules if they don't.

3. We present several new ideas on how large loads may work with provisional interconnections and other energy-only resources while those resources await CIRs. These proposals are aimed at providing the maximum amount of flexibility to new large loads without further disrupting interconnection queues.

4. We include a section supporting FERC and PJM jurisdiction over large loads in the capacity market.

## I. Public Interest Organization Proposal

- PJM 'freezes' large load additions with the amount already included in the 2026/27 BRA. The demand curve of all future RPM auctions will only include load growth as determined by PJM's modeling[1] plus the large load additions already included in the 2026/27 demand curve. Additional large load additions submitted by LSEs or TOs will no longer be included in RPM procurements. For clarity, large load additions for 2027/28 and beyond that have already been submitted but exceed the 2026/27 level will not be included.

[1] This modeling includes PJM's standard economic long-term forecast for peak loads, net energy, load management, distributed solar generation, electric vehicles, and battery storage. Large load adjustments submitted by EDCs, LSEs, or TOs, pursuant to PJM Manual 19, attachment B, will not be included in the RPM until new capacity is able to support them.

- New large loads beyond PJM's forecast will be added to RPM once new capacity is added to the system to support it. This new capacity may take the form of:
    - New generation or energy storage that notifies PJM it is for the benefit of an LSE or particular large load. In this case, the full UCAP of the new resource is added to the amount of firm load in the appropriate zone/sub-zonal LDA that PJM will procure capacity for through RPM.
    - New demand response or distributed energy resources offered into an RPM auction. In this case, the UCAP of new demand resources designated as for the benefit of an LSE or particular large load is added to the amount of load PJM will serve through RPM as long as the resources continue to offer into the BRA.

  Note that these two provisions combined allow new large loads to quickly enter service as fully interruptible, and acquire more firm service over time as they bring new generation or storage on-line.

- Rather than NCBL, large load flexibility is recognized through existing demand response and load shed procedures.
    - This approach avoids any jurisdictional conflict over whether PJM may directly curtail specific end-use customers by instead leaving the issue of curtailment of specific end-use customers as a retail function. LSEs and state regulators will be on notice as to what portion of their load is not backed by firm capacity. Regulators should, in turn, require or encourage customers—especially new large loads—to enroll in retail demand response programs, and obtain more firm service by presenting that demand response capacity to PJM. As this can be done equally well in incremental auctions, it allows flexibility for regulators and large loads to respond to BRA results before committing to DR programs.
    - To remain consistent with NERC regulations, environmental restrictions, and long-standing industry precedent, load shed (i.e., Mandatory NCBL) remains at its current place in emergency procedures. The zonal prioritization of load shed described by PJM in the allocation of Mandatory NCBL remains, and should be incorporated into the Manual 13 procedures that PJM currently uses to determine deficient Control Zones and their share of load shed required. (Manual 13, pp43-44).

  These two provisions address the same issues as NCBL. They avoid jurisdictional challenges associated with whether PJM or state regulators have authority to designate specific customers for curtailment. Additionally, these provisions avoid thorny jurisdictional questions about whether PJM has authority to designate specific end users for load shedding, or whether that designation must be the responsibility of retail regulators. Regulators should require or encourage participation in retail DR tariffs that feed into PJM's demand response program, and as a fallback, necessary curtailments may be accomplished through established load shed plans.

  We propose these changes to (1) use existing structures to guarantee reliability and comparable treatment with other demand response participants; (2) avoid jurisdictional

challenges associated with whether PJM or state regulators have authority to designate specific customers for curtailment; (3) not undermine existing rules regarding load sheds; (4) provide more options to recognize all load flexibility capabilities; (5) improve administrative efficiency and avoid arbitrage opportunities or seams issues between NCBL and existing DR.

- Energy-only resources may contract with demand resources to net the output of the energy-only resource with the DR resources' performance during events. This should be subject to the limitation that the energy-only resource is not on the wrong side of a binding RPM transmission constraint from the DR resource (e.g., energy-only resources outside a transmission-constrained LDA cannot help DR in that LDA). Should the energy-only resource be curtailed by PJM dispatch, the DR provider must still meet their obligations. We propose this approach to (1) make maximum use of existing provisional interconnection rules; (2) provide incentives for large loads to contract with energy-only resources; and (3) allow market participants to make use of the resource adequacy contribution of energy-only resources without passing deliverability risk on to others.

- PJM should clarify and if necessary improve the means by which load-shaping efforts to reduce load in periods of peak risk are incorporated into load forecasts. There is significant capacity benefit to be had from energy efficiency, especially in areas with electrical winter heating. With energy efficiency's removal from the capacity market, PJM should support any means by which regulators or large load developers can shape loads to provide capacity headroom.

## II. Comments on PJM's Proposal

*1. The cutoff for non-capacity backed load should be intrinsic load growth, not the reliability requirement.*

Consistent with PJM's obligation to preserve reliability, PJM proposed that all load beyond the amount that can be reliably served by cleared RPM resources be assigned NCBL status. In a sense, this is just acknowledging reality and providing a structure to triage load sheds.

However, PJM's responsibility to ensure just and reasonable rates goes beyond maintaining reliability, as discussed in more detail in section II below. While we commend PJM's Board of Managers for commencing this Critical Issue Fast Path—and in particular the Board's recognition that large load growth "has created significant upward pricing pressure"—we are concerned that PJM's Conceptual Proposal does not devote sufficient attention to affordability. Instead, PJM's Conceptual Proposal will ensure that the capacity market continues to clear at extremely high prices for the foreseeable future.

As recent FERC chair Christie pointed out, the Federal Power Act's "primary aim is the protection of consumers from excessive rates and charges"[2] Deregulated markets such as RPM should serve to shift risk from consumers to investors. Under current conditions, RPM fails both tests: It subjects consumers to excessive rates, and shifts risk from investors to consumers. Specifically:

- Delays to new entry make RPM prices unactionable, making claims that high prices are a necessary market signal irrelevant.

[2] Quoting *Towns of Alexandria, Minn. v. FPC*, 555 F.2d 1020, 1028 (D.C. Cir. 1977).

- New entry in PJM peaked in 2015-2020, when capacity prices averaged $109/MW-day and load growth forecasts were flat. The current boom in large loads was unforeseeable at that time. This contradicts any claims incumbent generators might make that they relied on expected future periods of high prices in making their investment decisions, or that high prices are necessary to drive investment.

- Since RPM is a forward market, it puts all the risk of large loads not materializing on consumers. Retail regulators might require new large loads to put down security deposits or otherwise face responsibility for investments made to serve them. But PJM does not, meaning that a large load that influences RPM outcomes but then does not get built simply transfers wealth from ratepayers to generation owners for no benefit.

- Intrinsic load growth is widely distributed, and so it is reasonable for costs associated with that to be widely spread. The general public benefits from a capacity market that supports intrinsic load growth. On the other hand, the benefits from accommodating large load additions flow to a small number of identifiable entities. Based on the overnight prices published in recent Quadrennial Review sessions, power generation to support a data center costs 20 – 35% of the data center itself. Right now, the capacity market is socializing those costs to the general ratebase.

- The capacity market is a spectacularly inefficient means of driving the investment needed to support data centers. The market monitor reports that the 4,654 MW of large load adjustments in the 25/26 BRA raised costs by $7.743 billion. That amounts to $1.664 million in ratepayer costs for each MW of large load adjustment. For comparison, Brattle's most recent analysis for the Quadrennial Review reports an overnight cost of $1.247 million/MW to build a CT with a 79% ELCC, or $1,578/$MW_{ucap}$. In other words, RPM is charging ratepayers more *every year* than it would cost to simply build new power plants to serve the large loads and give them away. This cannot be an efficient outcome.

Anchoring RPM procurements on intrinsic load growth allows RPM to serve its purpose of retaining the generation needed to serve load, while correctly placing responsibility for procuring new generation on the entities that create the need for and benefit from it. This change would explicitly acknowledge what has been a tacit understanding for a long time: the capacity market functions well at sending retirement or retention signals to existing generation, but is not an effective driver of new entry.

Similar to how NYISO is considering restructuring its capacity market around the reality that new entry will be driven by state policy, PJM's capacity market should be adjusting to the reality that arrangements with large load developers will be a major driver of new entry in the coming years. Setting market prices based on the fiction that RPM, rather than bilaterals with new large loads, drives market entry will simply transfer tens of billions of dollars from ratepayers to incumbent generation owners while incenting little new generation.

This Critical Issue Fast Path presents PJM with an opportunity to repair its relationship with states and consumers and to ensure just and reasonable rates in the capacity market, but PJM can only do so if it makes affordability an explicit priority in this process. As described in our discussion of FERC's jurisdiction over this issue, we believe that a focus on affordability is a requirement under the FPA. However, we also stress that PJM should view this process as an opportunity to better promote

affordability and to re-establish a role as a trusted partner to states—especially those that do not host many new large loads but still face paying for them—as the region continues to grapple with how to ensure energy affordability.

*2. The goals of voluntary NCBL are much better served by using existing demand response.*

PJM's NCBL proposal acknowledges the reality that if load grows faster than the generators to serve it can be built, load shed is inevitable. It responds by attempting to create an orderly procedure for allocating load sheds, starting with customers who volunteer for interruptible service.

However, PJM already has demand response rules that do precisely that. PJM's DR allows customers to declare what level of firm service they are willing to forgo at what price, incorporates that into the capacity market, and pays participants appropriately. By using these DR rules, PJM would take advantage of the decades of experience and thousands of hours of stakeholder work that have gone into making those rules a well-functioning program.

Otherwise PJM will have to design a new DR program from scratch, in a matter of weeks. The CIFP is not well suited for this task, and any outcome is likely to have multiple unintended outcomes. For example, take the most basic question: what is a 1MW NCBL obligation? Is it an obligation to decrease instantaneous load by 1MW? An obligation to curtail sites with a 5CP of 1MW? An off switch for the customers the utilities were thinking about when they submitted their LLAs? Something else? PJM has yet to explain what NCBL is even at that level of detail, and any decision will have far-reaching implications for NCBL's feasibility and reliability contribution.

Most obvious definitions of NCBL create hidden resource adequacy gaps. For example, NCBL is tied to large load adjustments, which are expressed in terms of summer peak. That suggests a straightforward way to define NCBL would be curtailment of loads with summer peaks (or 5CPs) that total the NCBL obligation. But that type of curtailment delivers uncertain resource adequacy value in the winter. A second choice might be that NCBL is a commitment to instantaneous load drop, but there is no reason to believe new large loads can deliver that, as there is no guarantee they run at 100% capacity factor. In any event, , as evidenced by the ELCC of DR, a commitment to instantaneous load drop also does not create UCAP equal to that load drop. As a third option, at some points during the CIFP introductory session PJM suggested that NCBL would mean direct PJM control of certain loads. This is equivalent to DR participation with an FSL of zero, which under PJM rules supplies less capacity than is needed to serve the curtailed load.

Most intuitive definitions of NCBL will create either or both of two problems. They may overstate the resource adequacy contribution of load drops, in which case they create reliability problems and implicitly subsidize large loads though decreased reliability to the general public. They may also overcompensate NCBL loads relative to a demand response participant with equal resource adequacy value and thus be unjustly discriminatory.

Beyond threshold reliability and legal requirements, there are a host of other issues that need to be resolved to develop a workable NCBL option:

- How does NCBL interact with the energy market?

- How are NCBL curtailments measured and verified?
- What are the penalties for failing to meet NCBL obligations? (Remember, simply giving PJM an off-switch does not create the needed UCAP!)
- How will PJM determine the capacity value of NCBL locations?
- How should loads decide between offering DR into the capacity market or volunteering for an uncertain chance of being selected for voluntary NCBL?
- How is limiting voluntary NCBL opportunities to certain loads made nondiscriminatory?
- The effort to develop new software and systems.
- How does NCBL interact with backup generator permits? (More on this below.)
- Are partial curtailments recognized?

Our point is not that these problems are insolvable, but that they have already been solved through the development of PJM's existing demand response program, and that PJM is inviting unnecessary trouble by trying to reinvent demand response in a few weeks.

PIO's proposal is to encourage new large loads to participate in existing DR programs. This ensures that the resource adequacy benefits of curtailable large loads is accurately measured and that all loads are treated comparably. In some ways, the difference is slight: where PJM aims to encourage large loads to volunteer for NCBL, we suggest large loads communicate their willingness to curtail by participation in existing DR programs.

*3. Mandatory NCBL is just load shed under a different name, and should be treated as such.*

We agree with PJM that the degree to which new large load additions exceed available capacity requires PJM to design methods to triage load sheds in the event of capacity shortages. We further agree with PJM's general approach of allocating the risk of such load shedding to LSEs/TOs based on their new large load additions. However, PJM's mandatory NCBL proposal is just a way of organizing load dumps: customers who did not volunteer will be turned off. This raises several concerns:

- PJM has not clearly articulated the basis for its purported authority to dictate which retail customers are shed during a load dump event. It is unclear whether this is within PJM's authority, or if it lies with the retail regulator. This lack of clarity could lead to difficult jurisdictional challenges.
- PJM's proposal risks contradicting NERC regulations that generally call for load shed only after all other available measures have been taken, including NERC EOP-002-3-R7 and EOP-003-R1.
- By calling for load shed much earlier in emergency procedures than is usual, PJM's proposal risks conflict with NERC reporting requirements, capacity market incentives, and air quality requirements.

4. *Use of backup generators must be consistent with state and federal law.*

We are particularly concerned about the role of emergency generation. Many states provide emergency generation with permits that only allow them to run when utility power is lost, and even specifically exclude participation in demand response. (e.g., Maryland). The EPA and nearly all states limit emergency backup generation running for financial reasons or in non-emergency situations. Rules often tie emergency generation to NERC EEA levels.

These rules were the motivation behind the pre-emergency and emergency demand response distinction. Pre-emergency DR exists so that demand response that does not rely on emergency-only generators could be called before PJM declares an EEA1. Emergency DR is for demand response that requires an EEA1 to operate. Any rules for incorporating data center backup generation must respect this framework; specifically, emergency backup generation must be tied to PJM declaring an EEA1.

Other backup generators are truly emergency only, in that they can only run when utility power is interrupted. It is only appropriate for PJM to call upon such generators after all other options have been exhausted. In particular, calling upon emergency-only generators before a maximum generation action for generators with unrestricted permits is just substituting bad generators for good. We suggest emergency procedures step 8, "Load Dump Warning," as the stage in which true emergency-only generators should be run. Such generators may not be run as part of a financial arrangement. As NCBL trades interruptible service for lower capacity charges, it is a financial arrangement.

PJM rules should never encourage gaming air quality rules by designating loads with emergency-only generation as "interruptible" in the expectation that generators permitted to only operate when power is lost are effectively dispatched by PJM. Whether voluntary or mandatory, such arrangements would violate laws prohibiting emergency-only generators from operating as part of a demand response program or financial arrangement with a utility.

5. *PJM should facilitate provisional energy-only interconnections for resources in the queue instead of new accelerated interconnection pathways.*

PJM's CIFP Conceptual Proposal seeks feedback on the "concept of additional accelerated interconnection pathways for projects contracted with large loads." PJM's proposal does not go into additional detail, and at this stage it is difficult to provide meaningful feedback. In general, PIOs are opposed to interconnection fast-tracks that cause harm to projects in, or entering, the interconnection queue, undermine state policies, and are not genuinely technology-neutral. In other words, PIOs would vigorously oppose fast-tracks that are similar to the one-time RRI. Large loads should not be allowed special privileges to fast-track projects at the risk of harming existing queued projects, increasing network upgrade costs, and jeopardizing resource adequacy by causing delays to existing cycles, which are already processing a 6+ year long backlog. The mere inclusion of fast-tracked projects into an existing cluster raises the risk of increased study costs and increased network upgrade costs. Accordingly, we do not believe it would be appropriate to develop a new interconnection fast track.

Instead, PJM must evaluate existing interconnection pathways, including those outlined on slides 22 and 23 of PJM's conceptual proposal. These existing processes may be sufficient with minor improvements. The only additional interconnection accommodation should be facilitating provisional energy-only interconnections for resources already in the interconnection queue. Projects in the queue contracted with

large loads can begin providing energy at an earlier date while they await their full CIRs, without the need to disrupt existing queue cycles.

As discussed above, energy-only resources can support new large loads in a Bring Your Own Capacity framework. Output of energy-only resources can be netted against the DR curtailments of the large load that they contract with, subject to transmission constraints. The large load remains fully obligated to meet its demand response commitment, and must be able to reduce additional load should their contracted generator be curtailed. PJM is already considering expanding interim deliverability and expanding provisional service and we urge PJM to consider options that make use of these pathways to support large loads.

If PJM decides to pursue any accelerated interconnection process for generation contracted with large loads, we would provide further feedback at the appropriate time.

## III. FERC has jurisdiction to regulate how large loads participate in PJM's capacity market.

As the Supreme Court explained, the Federal Power Act ("FPA") gives FERC "authority to regulate 'the transmission of electric energy in interstate commerce' and 'the sale of electric energy at wholesale in interstate commerce.'"[3] Because "the FPA obligates FERC to oversee all prices for those interstate transactions and all rules and practices affecting such prices," the Commission "has the authority—and, indeed, the duty—to ensure that rules or practices 'affecting' wholesale rates are just and reasonable."[4] The Court further explained that "common-sense construction of the FPA's language" means that FERC has jurisdiction over all "rules and practices that *directly* affect the wholesale rate."[5]

FERC has jurisdiction over PJM's practices for including large loads in the capacity market because those practices directly affect wholesale rates. Indeed, the incorporation of new large loads as demand in the capacity market is one of the principal drivers of recent dramatic increases in capacity market clearing prices. For example, PJM identified a "3,243 MW increase in forecasted load" as one of the drivers of skyrocketing prices in the 2025/2026 Base Residual Auction ("BRA").[6] Likewise, PJM identified a "5,446.1 MW increase in forecasted load" as one of the "[k]ey planning parameter changes" that led the capacity market to clear at its cap in the 2026/2027 BRA.[7] And PJM expects this trend to continue. As the PJM Board of Managers explained when commencing this Critical Issue Fast Path, "PJM's long-term load forecast shows a peak load growth of 32 GW from 2024 to 2030," and "[o]f this, approximately 30 GW is projected to be from data centers."[8] As the Board acknowledged, "[t]his onrush of demand has created significant upward pricing pressure."[9] The Independent Market Monitor ("IMM") concurs, explaining that "[t]he current tight conditions in the capacity market are almost entirely the result of large

[3] *FERC v. Electric Power Supply Ass'n*, 577 U.S. 260, 266 (2016) (quoting 16 U.S.C. § 824(b)(1))
[4] *Id.* at 266, 277.
[5] *Id.* at 278 (explaining that "a non-hyperliteral reading is needed to prevent the statute from assuming near-infinite breadth").
[6] PJM, *2025/2026 Base Residual Auction Report*, at 3, (July 30, 2024), https://www.pjm.com/-/media/DotCom/markets-ops/rpm/rpm-auction-info/2025-2026/2025-2026-base-residual-auction-report.pdf.
[7] PJM, *2026/2027 Base Residual Auction Report*, at 3 (July 22, 2025), https://www.pjm.com/-/media/DotCom/markets-ops/rpm/rpm-auction-info/2026-2027/2026-2027-bra-report.pdf.
[8] Letter from PJM Board of Managers, at 1 (Aug. 8, 2025), https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2025/20250808-pjm-board-letter-re-implementation-of-critical-issue-fast-path-process-for-large-load-additions.pdf.
[9] *Id.*

data center load additions," and that "[o]ne of the most important issues currently facing the PJM Capacity Market is the addition of data center load."[10] As the IMM explained, "the failure to recognize and address the role of large data center loads is a direct cause of higher prices and will continue to result in even higher prices unless the related issues are addressed."[11] Because PJM's practices for including large loads in the capacity market directly impacts wholesale rates, FERC has jurisdiction over these issues.

FERC's jurisdiction over PJM's practices for including large loads in the capacity market is not undermined by any role that large loads may have as retail electric customers or by the role of the states in regulating retail electricity sales. The Supreme Court rejected a similar challenge to FERC's regulation of the participation of demand response in wholesale electricity markets, finding that "[w]hen FERC regulates what takes place on the wholesale market, as part of carrying out its charge to improve how that market runs, then no matter the effect on retail rates, [FPA] § 824(b) imposes no bar."[12] The Court further clarified that FERC does not exceed its jurisdiction merely because a regulation "affects—even substantially—the quantity or terms of retail sales."[13] Instead, FERC's jurisdiction extends to practices that operate "exclusively on the wholesale market and govern[] exclusively that market," "whatever the effects at the retail level."[14] Here, PJM's practices for incorporating large loads into the capacity market are exclusively a wholesale market issue; those practices do not regulate retail sales, determine the rate that large loads will pay at retail, or limit state regulators' role in regulating retail rates.[15] Accordingly, FERC has jurisdiction over this issue notwithstanding any effects it may have at the retail level.

Indeed, FERC must have jurisdiction over the terms, conditions, and practices by which large loads are incorporated into the capacity market because a contrary finding—that FERC lacks jurisdiction over this issue—would create an impermissible "regulatory no man's land."[16] Because PJM's capacity market is an interstate wholesale market, states generally lack authority to regulate it.[17] And as the Supreme Court explained, because the FPA "makes federal and state powers complementary and comprehensive . . . [s]ome entity must have jurisdiction to regulate each and every practice that takes place in the electricity markets."[18] Because states generally cannot regulate capacity market practices, such as how large loads are incorporated into the market, FERC must have that regulatory jurisdiction.

FERC's jurisdiction over PJM's practices for incorporating large loads into the capacity market requires PJM to include affordability explicitly within the scope of this proceeding. As the Supreme Court explained, FERC "has the authority—and, indeed, the duty—to ensure that rules or practices 'affecting'

[10] Monitoring Analytics, *State of the Market Report for PJM*, at 1, 306 (Aug. 14, 2025), https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2025.shtml
[11] *Id.* at 306.
[12] *FERC v. EPSA*, 577 U.S. at 281.
[13] *Id.*
[14] *Id.*
[15] *See id.* at 283 (approving FERC regulation of demand response participation in the capacity market in part because "FERC's rule does not set actual rates: States continue to make or approve all retail rates, and in doing so may insulate them from price fluctuations in the capacity market").
[16] *Id.* at 289.
[17] *See id.* at 288 ("The FPA leaves no room either for direct state regulation of the prices of interstate wholesales or for regulation that would indirectly achieve the same result." (internal quotations omitted)).
[18]

wholesale rates are just and reasonable."[19] Because "the primary aim of the FPA is the protection of consumers from excessive rates and charges,"[20] FERC must ensure that PJM's practices for incorporating large loads into the capacity market do not cause excessive prices for consumers. Because FERC must protect consumers against unjust and unreasonable rates, PJM must ensure that any FERC filing resulting from this CIFP will yield just and reasonable rates. To do so, PJM must consider impacts on affordability. Hence, FERC's jurisdiction over this issue requires affordability to be explicitly in scope for this proceeding.

*6. Affordability must be in scope for the Critical Issue Fast Path*

We are concerned that PJM's Conceptual Proposal does not devote sufficient attention to ensuring that wholesale rates are just and reasonable and promoting energy affordability in the region. Instead, PJM's approach would allow the addition of large loads to continue to drive capacity prices to extremely high levels for the foreseeable future, perpetuating an affordability crisis that is already creating hardship for consumers and straining PJM's relationship with states in the region.

PJM's current approach to incorporating large loads into the capacity market is a key driver of high capacity market prices that are fueling a regional affordability crisis. As the IMM notes, "data center load growth is the primary reason for recent and expected capacity market conditions, including total forecast load growth, the tight supply and demand balance, and high prices."[21] Indeed, the IMM documents how large load additions to the capacity market has driven billions of dollars of increased costs, and concludes that consumers "are already bearing billions of dollars in higher costs as a direct result of existing and forecast data center load."[22] And that trend will continue, shouldering consumers with billions of dollars of costs each year if PJM persists on its current track.

While we commend PJM's Board of Managers for commencing this Critical Issue Fast Path—and in particular the Board's recognition that large load growth "has created significant upward pricing pressure"—we are concerned that PJM's Conceptual Proposal does not devote sufficient attention to affordability. Instead, PJM's Conceptual Proposal will ensure that the capacity market continues to clear at extremely high prices for the foreseeable future.

Perpetuating a system that has already led to extremely high capacity market prices and that will continue to lead to high prices moving forward is not reasonable or prudent. To begin with, high capacity market prices cannot lead to the timely development of new generation while PJM's interconnection queue remains sluggish and while new generation projects continue to face development challenges associated with supply chains, siting, and permitting. This critical problem has already led to significant breakdowns in PJM's relationship with states and with consumers, including the filing of multiple challenges to PJM's capacity market rules under section 206 of the FPA.

This Critical Issue Fast Path presents PJM with an opportunity to repair its relationship with states and consumers and to ensure just and reasonable rates in the capacity market, but PJM can only do so if it

[19] *Id.* at 277.
[20] *See, e.g., Xcel Energy Services Inc. v. FERC*, 815 F.3d 947, 952 (D.C. Cir. 2016) (citing *Mul. Light Bds. Of Reading & Wakefield v. FPC*, 450 F.2d 1341, 1348 (D.C. Cir. 1972, *cert denied*, 405 U.S. 989 (1972)).
[21] Monitoring Analytics, *State of the Market Report for PJM*, at 314 (Aug. 14, 2025), https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2025.shtml
[22] *Id.* (noting that "data center load by itself resulted in an increase in the 2025/2026 BRA revenues of $9,332,103,858 or 174.3 percent").

makes affordability an explicit priority in this process. As described in our discussion of FERC's jurisdiction over this issue, we believe that a focus on affordability is a requirement under the FPA. However, we also stress that PJM should view this process as an opportunity to better promote affordability and to re-establish a role as a trusted partner to states and consumers as the region continues to grapple with how to ensure energy affordability.

## Jim Wilson – Wilson Energy Economics

These comments are my own and not necessarily those of any client. References are to the PJM Conceptual Proposal of August 18.

1. slide 2 "Support economic development": Data centers have few employees and do not represent much in the way of economic development. In fact, by taking up all available power supply and raising electricity prices they probably have a negative impact on projects that represent significant economic development.

2. slide 2 "the rapid rate of projected large load additions": Throughout the presentation, the PJM mindset is clearly "passive load" -- load comes at us and we must respond. This is generally true of all other loads other than data centers and crypto, which can be located just about anywhere, and choose based on land and power availability, tax incentives, etc. etc. So there is a lot of control and influence over how much and how fast at any particular place on earth. Enormous geographic flexibility, as the extreme clustering of first generation data centers in NoVa illustrated.

3. slide 2 "PJM system is an attractive area for large loads to integrate because..." A key reason was excess capacity and low power costs, and that has now ended. Another key reason was the opportunity to shift the incremental costs and risks of the incremental service to other customers through IRPs (in VA, in OH) and through the PJM RTEP.

4. slide 2 "raises resource adequacy risk" -- not necessarily. If policies are modified as necessary to clarify, as I believe they should be, that data centers would generally be curtailed before residential, commercial, or industrial customers, then these new loads do not pose resource adequacy risk for other customers, only for themselves. And I doubt the data center operators would want to headlines to say residential and commercial customers were in the dark while their chips were humming on.

5. slides 11-13: it would be a mistake to assign any significance to whether new large loads, and the associated forecast load increases, are identified as LLAs submitted to LAS or not. The policies PJM proposes should apply to any and all large new loads; all large new loads should be exposed to mandatory NCBL. The tie to LLA would be a mistake for at least two reasons:

a. The purpose of LLAs is to help PJM make a more accurate forecast. But EDCs are not required to submit LLAs, and different EDCs will have different incentives to do so based on their circumstances.

b. More important, the concept underlying the LLA is a large new load that PJM's econometric model may not capture. But in Dominion, for instance, there is a long history of data center load increases and a substantial amount of such growth embedded in the forecast. (Compare, for instance, PJM load Forecast Table B-9 to Table B-9b). The embedded amounts would seem to give a free pass to a certain amount of new data center development in certain zones whether or not any such development is even underway.

6. The problems arising due to possible very large new loads is not a problem the capacity market was designed to resolve, or the capacity market is capable of resolving (as some have suggested). Very high capacity prices are for a single year and do not influence investments much: Investors are influenced by a perceived true long-term need for their incremental capacity. If they pause at present its because PJM's modeling exaggerates risks while the forecasted load increases are highly uncertain. Spiking capacity prices simply enrich sellers and punish customers.

7. At ELCCSTF in June Walter Graf suggested there was a question about how much resource adequacy customers want and are willing to pay for, and that PJM should solicit input from customer representatives on that question. I followed up expecting that such a discussion would take place, but there has been backpedaling at PJM. This is relevant to the issues around the urgency of connecting these large new loads and the impacts of these new loads on other customers.

Hope those comments are helpful. Again, my own views not necessarily those of any client.

STATE OF DELAWARE
DEPARTMENT OF STATE
DIVISION OF THE PUBLIC ADVOCATE

820 N. FRENCH STREET
4TH FLOOR
WILMINGTON, DELAWARE
19801
(302) 577-5077

THOMAS COLLINS BUILDING
540 S. DUPONT HIGHWAY
SUITE 3B
DOVER, DELAWARE 19901
(302) 241-2555

PUBLICADVOCATE.DELAWARE.GOV
1.888.607.2427

August 27, 2025

Via Electronic Mail
Michele Greening, Chair, Critical Issues Fast Path – Large Load Additions
Matt Connolly, Secretary, Critical Illinois Fast Path – Large Load Additions
PJM Interconnection, LLC
2750 Monroe Blvd.
Audubon, PA 19403
Michele.Greening@pjm.com
Matthew.Connolly@pjm.com

Re: Stakeholder Feedback on Critical Issue Fast Path Process for Large Load Additions (CIFP-LLA)

Dear Ms. Greening and Mr. Connolly:

The Delaware Division of the Public Advocate ("DPA") writes to provide comments on the Critical Issue Fast Path – Large Load Additions ("CIFP-LLA") accelerated stakeholder process.

In short, DPA urges the robust consideration of the impact of large load additions on consumer costs across the PJM region, including Delaware, in the CIFP-LLA process and in any resulting proposal.

The risks to consumers from large load additions, primarily data centers, are substantial. Data centers are expanding at an unprecedented pace, with potentially enormous impacts. As PJM's August 8, 2025 letter identifies, of the 32 GW in peak load growth forecast from 2024 to 2030, 30 GW is from data centers.[1] This rapid growth is translating into material cost impacts. The PJM capacity auction price has jumped roughly 1000% over just the past two years and, according to the PJM Independent Market Monitor, "data center load growth is the primary reason for recent and expected capacity market conditions, including total forecast load growth, the tight supply and demand balance, and high prices."[2] The Independent Market Monitor further estimated that, in the

[1] August 8, 2025 Letter from David E. Mills, available at 20250808-pjm-board-letter-re-implementation-of-critical-issue-fast-path-process-for-large-load-additions.pdf.
[2] MONITORING ANALYTICS, *Analysis of the 025/2026 RPM Base Residual Auction, Part G*, p. 1, available at https://www.monitoringanalytics.com/reports/Reports/2025/IMM_Analysis_of_the_20252026_RPM_Base_Residual_Auction_Part_G_20250603_Revised.pdf.

2025/2026 capacity market auction, data centers caused $9.3 billion in higher auction revenue.[3] But prices went higher still during the 2026/2027 capacity market auction likely meaning many billions more in higher capacity market costs driven by data centers.[4] The trendlines point to even higher demand relative to supply, with potentially even higher costs, in both capacity market prices and energy prices.

Despite this, while the August 8, 2025 letter outlines the challenges presented by large load additions, it does not mention the potential impacts on consumer costs, nor include consumer costs in the five "primary focus" items identified.[5] Similarly, in PJM's August 18, 2025 presentation "Large Load Additions: PJM Conceptual Proposal and Request for Member Feedback," the impact on consumer costs is nowhere in PJM's three objectives for the CIFP-LLA process or addressed in any robust manner.[6]

The impact to consumers must be a robust aspect of this CIFP-LLA process. It should be a goal of this process to avoid socializing the costs of large load additions onto other ratepayers and accomplishing that may require broadening the scope of potential proposals. The status quo has already resulted in rapidly increasing costs. For the end result of this CIFP-LLA process to improve matters for consumers, their interests must be an integral consideration throughout this process.

DPA appreciates the Board's willingness to solicit input on this matter.

Respectfully submitted,

*/s/ Jameson A.L. Tweedie*
Jameson A.L. Tweedie
Delaware Public Advocate

[3] *Id.*
[4] PJM News Release: PJM Auction Procures 134,311 MW of Generation Resources; Supply Responds to Price Signal, available at 20250722-pjm-auction-procures-134311-mw-of-generation-resources-supply-responds-to-price-signal.pdf.
[5] August 8, 2025 Letter from David E. Mills, available at 20250808-pjm-board-letter-re-implementation-of-critical-issue-fast-path-process-for-large-load-additions.pdf.
[6] August 18, 2025 presentation "Large Load Additions: PJM Conceptual Proposal and Request for Member Feedback," p.5, available at 20250818-item-03---pjm-conceptual-proposal-and-request-for-member-feedback---presentation.pdf.

## Renewable Solutions LLC

The following comments are regarding the second additional "pillar" of PJM's conceptual proposal discussed on pages 8 and 24 of the presentation dated August 18th .

1. Specify that the offtake agreement between the generation resource and the large load may be for financially settled or physically delivered energy. Specify what documentation PJM will require demonstrating the offtake agreement relationship. Specify that the offtake agreement may include provisions conditional on the receipt of all approvals from PJM and / or the EDC.

2. Specify that the large load subject to an offtake agreement with a generation resource would also be granted priority pathways for the EDC load integration study (request to become a Network Load) and other studies associated with co-location if required (TEAC Supplemental Projects, PJM Do No Harm Study, Necessary Study).

3. Specify that if the large load has previously submitted its EDC load integration study but has not yet received approval from the EDC/PJM as a Network Load, it will be granted priority pathways for the completion of the associated studies.

4. Specify that the generation resource subject to an offtake agreement with a large load may be granted priority pathways for interconnection approval under Surplus Interconnection Service or as a replacement generator following CIR transfer from a deactivating generation resource.

5. Specify that the generation resource and large load under this second "pillar" will receive their respective approvals (interconnection approval and network resource status) at the same time. This will expedite the ability of these entities to proceed with subsequent financing and construction activities.

George Henderson
Renewable Solutions LLC

To: Michele Greening and Matt Connolly

From: Pennsylvania Public Utility Commission

Date: August 27, 2025

RE: CIFP – Large Load Additions

**Introduction**

The Pennsylvania Public Utility Commission (PA PUC) commends PJM for launching this critical issue fast path (CIFP) stakeholder process on large load additions and is pleased to participate in it. The addition of large loads to an already tightening grid presents a major challenge for PJM, its generators and transmission owners, and state policymakers. In the last year, the PA PUC held a technical conference on resource adequacy and an *en banc* hearing on tariffs for large load customers. This CIFP exists at an important nexus of major policy concerns that the PA PUC views as extremely timely.

As a general matter, the PA PUC encourages PJM to coordinate as closely as possible with state policymakers while navigating this CIFP process and developing potential reliability-focused solutions for large loads. It is possible that many of the solutions may necessitate actions by state entities, or potentially even enabling changes to state regulations or statutes. As an example, some states may have laws or regulations regarding non-discriminatory grid access or reasonable provision of utility service that may be implicated by PJM's proposals.

We continue to support this initiative, but merely caution that even more so than usual, PJM should seek states' input to minimize the potential for any regulatory or jurisdictional challenges.

**What issues should be included or out of scope for the CIFP-LLA Issue Charge?**

The PA PUC believes that load forecasting issues should be included in the scope of this CIFP. While we appreciate the existing framework of the Load Analysis Subcommittee, we find the issue of accurate load forecasting with respect to large load additions is too integral to the CIFP issue charge to be ruled out of scope. It is widely acknowledged that there are potentially duplicative interconnection requests across PJM, among other issues with the certainty of data center load forecasts.

Prior to creating a new customer class of non-capacity-backed load that may entail jurisdictional, regulatory, and market concerns, it is critical that all stakeholders have as accurate a view as possible of the true scale of the potential universe of those customers. Identifying duplicative large load interconnection requests was one specific focus of the PA PUC's *en banc* hearing on large loads, and it continues to be an area of concern.

Moreover, PJM's current proposal would differentiate between load growth that was considered part of existing load forecast trends as compared to the "Large Load Adjustment" process. This bifurcation may cause problems in practice. Some zones within PJM already have significant data center growth built into forecast trends because they have seen earlier development of these customers than some other zones. This may lead to zones with already high density of large load customers being allocated a proportionally smaller share of the total curtailable load for non-capacity-backed load than zones where data center expansion is a more recent development.

Both to accurately gauge the overall size of large load customers seeking to interconnect and to ensure that the methodology for allocating curtailable load accurately reflects the overall system, discussions about the load forecast are an indispensable part of this CIFP charge and should therefore be deemed in scope.

**What comments would you like to provide on the PJM conceptual proposal?**

The PA PUC appreciates that PJM's proposal is a starting point for conversation with stakeholders and any comments on specific components of that proposal do not indicate ultimate approval or disapproval of the overall plan.

*Non-Capacity-Backed Load*

The creation of a new class of customers, non-capacity-backed load, is a novel solution to the issue PJM seeks to address. There exists some precedent in gas utilities, which often have stricter rules for curtailment of commercial customers to protect the public interest in certain circumstances. Adapting those policies to the electric grid and applying them to new large loads being added to an already constrained grid may prove to be a practical solution to a transitory problem until new generation can be brought online to bring the system into equilibrium.

Having said that, the PA PUC encourages PJM to explore other means to achieve similar ends. It is possible that making more comprehensive changes to its price responsive demand and demand response programs may both ease the addition of new large loads while also expanding participation of existing customers in those already established programs.

*Generation Interconnection Queue*

The PA PUC would also caution PJM to be mindful of stakeholder trust in the integrity of the queue process for capacity interconnection. The PA PUC supported the Reliability Resource Initiative and also believes that some expedited review for generation brought by large loads to support their own operations is reasonable. However, while ad hoc measures to increase overall generation in PJM may be prudent individually, in aggregate they may erode confidence in the ordinary interconnection process, which remains the primary means by which the system adds generation to meet demand. PJM should maintain its focus on clearing the existing

interconnection queue and consider other ways to maintain confidence in the traditional interconnection queue process.

**Conclusion**

Again, the PA PUC greatly appreciates PJM's proactive approach to the issue of large load interconnection. The current environment of delayed generator interconnection and rapid load growth are unprecedented and present significant challenges for all those invested in the PJM grid. The Pennsylvania Public Utility Commission looks forward to working with PJM and all its stakeholders to identify and implement reasonable changes to address these concerns in a comprehensive and consensus-based way.