UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Reliability Technical Conference Docket No. AD25-8-000

Pre-Technical Conference Remarks of Jason Connell
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Panel 2: Ensuring Reliability with Large Loads

Thank you for the opportunity to participate in today's important panel.

I am Jason Connell, Vice President of Planning at PJM Interconnection, L.L.C. I have responsibility for transmission and interconnection planning, and the resource adequacy planning team that prepares the PJM Region's wholesale load forecast.

I look forward to discussing PJM's ongoing work relating to enhancing the load forecasting process in the PJM Region. On this topic, I will speak to the developments that Manu Asthana, PJM's President and Chief Executive Officer, has described in his response to Chairman Rosner's September 18, 2025 correspondence regarding load forecasting. A copy of that letter is enclosed with these remarks.

I also note that PJM continues to engage in the ongoing efforts of NERC's Large Loads Task Force. PJM supports this work given the recognized impacts of large loads on the bulk electric system, and PJM appreciates that opportunities exist to clarify the roles and responsibilities of large loads under the NERC Functional Model.

Respectfully submitted,

/s/ Jason Connell

Jason Connell
Vice President, Planning
PJM Interconnection, L.L.C.

Dated: October 17, 2025

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VIA ELECTRONIC DELIVERY

October 17, 2025

The Honorable David Rosner
Chairman
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Dear Chairman Rosner:

Thank you for your September 18, 2025 letter regarding load forecasting processes and enhancements. PJM shares the Commission's focus on enhancing the RTO's wholesale load forecasting tool kit to support the construction of critical energy infrastructure needed to deliver maximum ratepayer value. We appreciate your call to action on this complex subject. PJM will continue to collaborate with the Commission, the PJM states, Electric Distribution Companies and Load Serving Entities, and all other PJM stakeholders regarding this important issue.

We support the continued recognition that an RTO has authority under its tariffs to prepare a wholesale load forecast pursuant to a reasonable methodology.[1] Today, PJM's Load Forecast Adjustment Guidelines use those requested load adjustments "deemed appropriate by PJM."[2]

We continue to actively engage with our stakeholders on enhancements to PJM's wholesale load forecasting process. In the first half of 2025, PJM worked with stakeholders through its Load Analysis Subcommittee to enhance the clarity of its load forecasting processes where adjusted loads are projected to exceed 50 MW.

In September, the PJM Board of Managers started an expedited stakeholder process to address potential resource adequacy challenges arising from the rapid interconnection of large loads.[3] Enhancements to load forecasting are among the key priorities of this process, and PJM is aiming to complete the stakeholder process this year.

[1] *See PJM Interconnection, L.L.C.*, 123 FERC ¶ 61,163, at P 51 (2008) ("We find that PJM has complied with Order No. 890 [and Principle 4: Information Exchange] because it has a reasonable methodology for providing a load forecast report.").

[2] PJM Manual 19: Load Forecasting and Analysis, Attachment B: Load Forecast Adjustment Guidelines (PDF), at page 26.

[3] Critical Issue Fast Path – Large Load Additions.

Just last week, the PJM Board and PJM staff also met with state utility commissioners, federal regulators, and industry experts at the 2025 Annual Meeting of the Organization of PJM States, Inc. Potential load forecasting enhancements were discussed repeatedly across that two-day meeting.

PJM also continues to engage with its Electric Distribution Companies and Load Serving Entities (and other relevant stakeholders) to gather more granular information about their load interconnection processes and related state-regulated processes in an effort to inform additional potential enhancements to PJM's load forecasting efforts. I summarize updates from these various efforts below and provide specific responses to the questions in your September 18 letter.

Update on PJM's Load Analysis Subcommittee and the Development of a Load Adjustment Request Implementation Document

In the first half of 2025, PJM's collaboration with stakeholders at the Load Analysis Subcommittee resulted in the preparation and publication of a Load Adjustment Request Implementation document that offers enhanced transparency about PJM's load adjustment request submission process in PJM Manual 19, Attachment B.[4] This Implementation document speaks to the collaborative and iterative process involving Electric Distribution Companies, Load Serving Entities, and PJM, and opportunities for Relevant Electric Retail Regulatory Authorities.

Among other things, the Implementation document addresses load forecasting methodologies and sets forth PJM's need to receive from forecast submitters: capacity and demand values, ramp rates to reflect time until full demand is realized on the system, levels and details relating to electric service obligations to loads, construction commitments, and other potentially relevant agreements that could help determine the likelihood projected load will eventually come to market. The Implementation document also seeks to have submitters present PJM with information relating to new customer's financial commitments regarding certain anticipated load interconnections. In an effort to hedge against potential load forecast uncertainty, the Implementation document buckets load interconnections into three categories that are assigned different probability factors for purposes of incorporating these projections into the wholesale load forecast: large loads projected to come online in three years or less; large loads projected to come online in more than three but less than eight years; and large loads projected to come online eight years and beyond.

It remains the case that load forecasting is grounded in statistical modeling that assesses historical load trends in the context of other variables, including economic and demographic factors, electric usage trends and weather. Statistical models, however, may not fully account for trends that are not directly tied to one of these statistically derived factors. PJM's approach to load forecasting, including the methodology in Manual 19, Attachment B, as further clarified by the Implementation document, helps identify additional inputs that statistical models may not otherwise fully reflect.

[4] PJM Interconnection, L.L.C., Load Adjustment Request Implementation (PDF), PJM Resource Adequacy Planning Department (July 1, 2025; revised Aug. 26, 2025).

Update on PJM's Load Forecasting Efforts in the Expedited Stakeholder Process

The issue charge for the expedited large load additions stakeholder process is focused on, "[e]xplor[ing] potential solutions that include further changes to the Load Forecast process targeting resource adequacy challenges to the extent they are narrowly focused, such as [Large Load Additions] included in the load forecast (Manual 19, Attachment B), state roles in the large load adjustment process, and load bid into the auction, with objective for consensus by EOY 2025." There is also an effort to enhance transparency around forecasts, assumptions, participation, methodologies, interconnections, supply arrangements and costs where possible and practical.[5]

On October 1, 2025, PJM presented an updated proposal in response to considerable feedback seeking improvements in load forecasting processes.[6] Although not finalized and the subject of ongoing discussion and refinement, PJM proposed enhancements to its existing processes to reduce the potential for speculative load, including:

- The addition of a step for Relevant Electric Retail Regulatory Authorities to have an opportunity to review and provide feedback on large load adjustments prior to PJM's finalization of the wholesale load forecast. As I discuss below, some states appear to be taking steps to engage in these types of activities.
- Further formalization of criteria to assess projected load's degree of commitment to coming in service to help accurately capture the reliability landscape and reasonably cabin potential ratepayer exposure, to build upon the enhancements already reflected in the Implementation document described above
- Development of a new required data point in PJM's annual load adjustment template that would require submitters to inquire with their subject customers about whether any load interconnection requests received are duplicative with other such requests made to interconnect large load either within or outside of the PJM region, such that only a subset of the requests are expected to actually achieve commercial operation. If any duplicative requests are identified, the submitters are required to provide the amount of megawatts that have been determined to be duplicative in their submission.
- Consideration of financial security requirements from large load customers (or other responsible entities) for the capacity required to be purchased in a given Reliability Pricing Model auction, whether such requirements arise from state law or retail tariffs. PJM will continue to evaluate with stakeholders opportunities to leverage existing templates to enhance load forecasting in our region.

PJM is presently receiving additional stakeholder packages and proposals and remains committed to ongoing collaboration with the Commission, the PJM states, and all impacted stakeholders on identifying and implementing further enhancements to PJM's load forecasting processes.

[5] Changes to PJM's load forecast schedule or an overhaul of the entire load forecast process are presently not in scope of the issues being worked.

[6] Large Load Additions CIFP Update (PDF).

PJM's Answers to the Questions in the September 18 Letter

Turning to the specific questions in your September 18 letter, I offer the following responses. PJM looks forward to continued dialogue with you, other Commissioners and Commission staff on these matters.

(1) How do you, the utilities in your footprint, and state regulators obtain information that verifies when and whether prospective large loads in your region will reach commercial operation?

The large load adjustment process described above (including the recently developed Implementation document) was developed because of challenges to reflecting large loads in traditional forecasting methods, including challenges to verifying when and whether prospective large loads will come to market. Consistent with governing document and other information exchange requirements, PJM relies on the Electric Distribution Companies and Load Serving Entities to provide data on large load requests. Unlike the PJM-administered generation interconnection process, PJM does not presently have a load interconnection process. Because data centers and other large loads are retail loads, albeit interconnected in many cases at the transmission level, the load interconnection process is generally administered through the application of retail tariffs. Electric Distribution Companies and Load Serving Entities typically have load interconnection processes, which explains why forecast-related data (including, for example, customer-level requests or visibility into probability of reaching commercial operation) is available to these entities but not to the RTO in the first instance.

PJM recently surveyed certain of its Electric Distribution Companies and Load Serving Entities to further inquire about facets of their respective load interconnection and load forecasting processes with a particular aim at getting more granular insights into how these entities assess the commercial probability of large loads. As part of that ongoing effort, we can preliminarily share some general observations about the diversity of practices among these entities in PJM:

- There are a wide range of approaches to load adjustment processes, and some approaches reflect more experience with large load additions than others.
    - Some states and Electric Distribution Companies/Load Serving Entities have approved or have proposed required financial commitments upon formalizing a load interconnection based on a contracted minimum demand.
    - Other states and Electric Distribution Companies/Load Serving Entities reflect less stringent approaches (like tracking milestones or developing alternative scoring criteria) that appear more focused on recouping expenditures on customer-specific transmission upgrades.
- Duplicative requests are generally not being explicitly accounted for by Electric Distribution Companies and Load Serving Entities submitting load adjustments to PJM unless a customer is known to be submitting multiple requests within a single utility territory or collection of utility territories owned by a

single parent company.[7] In short, whether the request is duplicative of other requests is information that resides with the large load customer that has submitted these duplicative requests. For competitive reasons, these customers are often not willing to provide this information.

- In assessing the potential commercial viability of anticipated large loads, some entities are using historical experience to understand anticipated load characteristics, such as load ramp or demand-to-capacity characteristics, and other entities appear to rely on customer-specified information included in agreements between the utility and load customer.

- There is a diversity of state engagement on retail load interconnections and forecasting. Some states appear to have annual reporting requirements on load expectations, although from PJM's review of available information, there may not yet be in place a formal validation/verification process on large loads or selection criteria.

Because of the disparate state law regulatory regimes relating to large load interconnections and forecasting, PJM's current stakeholder proposal invites continued discussion about a role for states in verifying and validating proposed load adjustments and forecast inputs. Such efforts will help PJM's ability to uniformly collect comparable data from Electric Distribution Companies and Load Serving Entities across its footprint. PJM also continues to monitor ongoing developments that could impact load forecasting in the states across its footprint. To that end, PJM has prepared the attached summary chart of relevant state tariff and regulatory developments it is aware of to date. PJM continues to engage with applicable state authorities and impacted stakeholders to appreciate any impacts on PJM's processes.

One particularly notable (and recent) development is the introduction in Pennsylvania of the proposed Load Forecast Accountability Act.[8] As PJM understands this recent development, the proposed legislation is aimed at strengthening the transparency and accuracy of load forecasting in Pennsylvania. It would authorize the Pennsylvania Public Utility Commission ("PAPUC") to review and validate the load forecasts submitted to PJM by Pennsylvania utilities and empower the PAPUC to collaborate with PJM and other state regulators to avoid duplicative project requests. Other states, like Ohio, appear to have taken similar actions.

PJM remains open to other potential enhancements to its load forecasting process, including the potential use of experts and vendors. That being said, PJM understands that many of these same experts and vendors struggle with data availability and asymmetries. Furthermore, we understand that in certain locations, there may also be an insufficiently small sample size of historical data from which to extrapolate forecasted loads given the transformational industry changes currently underway. And since many large load projects are covered under confidentiality arrangements between the data center and the utility, third-party vendors and forecasters may experience challenges with accessing information that they may not be able to overcome.

[7] See also the New Jersey development referenced in the enclosed chart.

[8] Load Forecast Accountability Act.

(2) To what extent are prospective large load requests subject to consistent, objective screening criteria before they are included in the load forecast?

As discussed above, earlier this year PJM developed and published the Load Adjustment Request Implementation document that offers enhanced transparency about PJM's load adjustment request submission process in PJM Manual 19, Attachment B. This effort was necessary because approaches among submitting utilities reflected a diversity of practices and procedures that were challenging for PJM to harmonize. While certainly these actions are a step in the right direction, PJM looks forward to continued collaboration with its stakeholders, especially the Electric Distribution Companies and Load Serving Entities, to pursue additional enhancements and opportunities for consistency across the region.

(3) How do you forecast how the actual electricity consumption of a large load will compare to its requested level of interconnection service?

PJM receives historical data on aggregate loads associated with a request. In some cases, a particular area may have a historical record that can be used. In other areas, however, all of the load is prospective, and thus no historical data can be leveraged. Historical data, where available, can be used to track accuracy of load interconnection projections over time. As such, PJM intends to promote its use in upcoming annual load adjustment processes.

However, when a utility has no historical record to leverage, the utility is instead relying on milestone tracking or how far along they are in their specific interconnection process. They then would rely on customer representations about expected demand. It remains unclear and uncertain how reliable such reliance is, which is why PJM's Implementation document uses guidelines (e.g., probability factors, ramping, demand versus capacity) when developing the forecast.

(4) How do you coordinate with utilities at the regional or interregional level to share best practices on large load forecasting and ensure that large load interconnection requests are not double-counted?

Part of the load adjustment process described in Manual 19 and the Implementation document calls for requesters to present at the Load Analysis Subcommittee.[9] This affords an opportunity to promote transparency and allows utilities to share best practices as our industry explores continued enhancements to the load forecasting process.

PJM will continue to monitor state regulatory developments (like the Load Forecast Accountability Act mentioned above) and engage with stakeholders during its ongoing large load additions stakeholder process to pursue other opportunities to minimize the potential for double-counting proposed load additions in forecasts. As an example, PJM and its stakeholders will continue to explore how more stringent financial commitments and enhanced

[9] Load Analysis Subcommittee.

information sharing about specific proposed load additions could advance efforts to mitigate double-counting concerns.

PJM will also explore with stakeholders the potential benefits of comparing the PJM-developed load forecast against third-party forecasts of national data center development. Such a comparison may prove to be a useful way to assess whether PJM's forecast is in line with established national trends, supply chain constraints, and other realities relating to data center development.

* * *

PJM looks forward to continued engagement with the Commission on the important topic of load forecasting, including at the upcoming October 21, 2025, reliability technical conference.

Respectfully,

/s/ Manu Asthana
Manu Asthana

Comparison Table of PJM State
Regulatory Developments for Large Loads via Contracts, Fees and Rate Schedules

State	Regulation(s)
D.C.	N/A
Delaware	HB 233 (2025, Proposed) - Requires regulated utilities to establish separate rate for "large energy-use" facilities
Illinois	Com-Ed (PDF), General Terms and Conditions Filing (2025, Proposed) - For "large demand project applicants" (revised or new service of 50 MW or greater in 10 years of service): o A projected load ramp through the first 10 calendar years will include monthly projections of the Maximum Kilowatts Delivered; o Payment of the costs of the initial engineering analysis; o Proposed deposit sufficient to secure the costs of procurement of long-lead materials; and o Required to enter into a Transmission Security Agreement under the jurisdiction of FERC (rate schedule must be calculated in accordance with PJM OATT).
Indiana	Indiana Michigan Power (PDF), Update Tariff Industrial Power (2025, Passed) - Large loads (new or expanded facilities with contract capacity of at least 70 MW or 150 MW aggregated) subject to the following Large Load Terms: 20 years initial period contract term and termination fee given permanent closure during term; 90% monthly minimum billing demand; increased minimum amount of collateral to be provided by the customer.
Kentucky	N/A
Maryland	HB 0900 (2025, Proposed) - Requires Maryland electric companies to submit to the PSC for approval of a specific rate schedule for certain data center customers (monthly maximum demand more than 2,500 kW). o Contract load ramp must be four years or less; o Contracts for an initial period of not less than the load ramp plus 20 years; o Certain load ramp contract capacity specifications; o Minimum service charges associated with the contract;

	○ Exit fee equal to the minimum charges for 120 months of service if customer decides to terminate contract; and ○ Minimum monthly distribution billing demand and transmission billing demand are not less than 90% of the customer's load ramp contract capacity. HB 1035/SB 937, Next Generation Energy Act (2025, Passed) - Each investor-owned electric company and electric cooperative to submit to PSC for approval of a specific rate schedule for large load customers (projected to have an aggregate monthly demand of at least 100 MW and a load factor of over 80%; excludes existing large loads that do not expand by more than 25 MW). - Rate schedule should protect residential retail electric customers from the financial risks of large load facilities through the use of: load ramps, minimum billing demand, long-term contractual commitments and exit fees, and fees for canceling or delaying the project. - Before signing a contract for service under a specific rate schedule, a large load facility must submit a request for a load study to determine the necessary contract capacity for the large load customer and pay any applicable fees associated with the study.
Michigan	Michigan Consumers Energy, Rate GPD Amendment (2025, Proposed) - "Project Proposal Fee" as an up-front administrative fee (not to exceed $100,000); - Rate contract for an initial 15-year period (with a one-time allowance for a reduction in the contract capacity), including a specified contract amount and ramp-up period no longer than five years prior to the contract term. - New data centers be required to pay a monthly Minimum Billing Demand of 80% of the data center's Contract Capacity and applied to their Maximum Demand and On Peak Demand. - Rights to suspension and exit fees.
New Jersey	Bill A5462 (2025, Passed) - Requires that no later than 180 days after effective date, each electric public utility shall file an application with the BPU to create a tariff for the provision of electricity to large loads (maximum monthly demand of 100 MW). ○ Provides adequate financial guarantees that they will take at least 85% of service they request for a period of not less than 10 years from when service commences; ○ Requires any new large load data center customer to demonstrate that the proposed project is not duplicative of any other, whether located in New Jersey or elsewhere, or to identify the project's interdependencies;

	○ Provide deposits or financial security if the large load data center project ceases operations or takes less service than anticipated over the 10-year period. - The board may establish rates specific to large load data centers for use by any electric public utility in formulating the tariff.
North Carolina	N/A
Ohio	Ohio Power Company (PDF) (2025, Passed) - AEP proposed, and the PUCO approved (PDF), increased financial requirements for new data centers (larger than 25 MW). Customers will be subject to a 12-year contract term that includes a load ramp period of four years with rising customer capacity during the load ramp. - Following the ramp period, large data centers would pay for 90% of their projected energy needs upfront each month, even if they don't use all of it – essentially creating a new classification of customers specifically for data center customers. - Exit fee, applied to any project that is canceled or unable to meet the obligations over the course of the electric service agreement.
Pennsylvania	Docket Number M-2025-3054271 (2025, Proposed) - *En Banc* Hearing Concerning Interconnection and Tariffs for Large Load Customers: ○ At the Public Meeting of March 27, 2025, a motion by Chairman DeFrank was approved to convene a public hearing exploring the growing impact of large-scale electric customers – including data centers and other high-energy users – on the state's electric grid. ○ The five PUC commissioners held an *en banc* hearing to seek information from industry leaders and interested parties concerning interconnection and tariffs for large load customers in Pennsylvania. ○ The intent of the hearing is to educate and inform the Commission on the prudent design of a large load customer model tariff, seeking comments on topics such as appropriate megawatt-size delegation, deposits and financial security, exit or early termination fees, minimum contract terms, etc. - Following the *en banc* hearing, the Office of Competitive Market Oversight, the Bureau of Technical Utility Services and the Law Bureau are to review submitted testimony and written markets and develop a proposed model tariff for large load customers seeking to interconnect in the Commonwealth.
Tennessee	N/A

Virginia	Dominion (2025, Proposed) - Proposal (PDF) for new base rates: requested increases of $8.51 per month in 2026 and $2 per month in 2027 for a typical residential customer. - New customer class (GS-5) for "large-scale users of electricity" (25 MW or greater, measured or contracted load factor of at least 75%); New minimum demand charges: 85% for the transmission and distribution functions and 60% for the generation function. - Minimum 14-year contract term (four-year ramp period and 10 years) to pay for their requested power – even if they use less. - New deposit and credit (collateral) requirements for these customers; and - Provisions with respect to potential capacity reassignments and exit fees.
West Virginia	N/A

As of October 2025