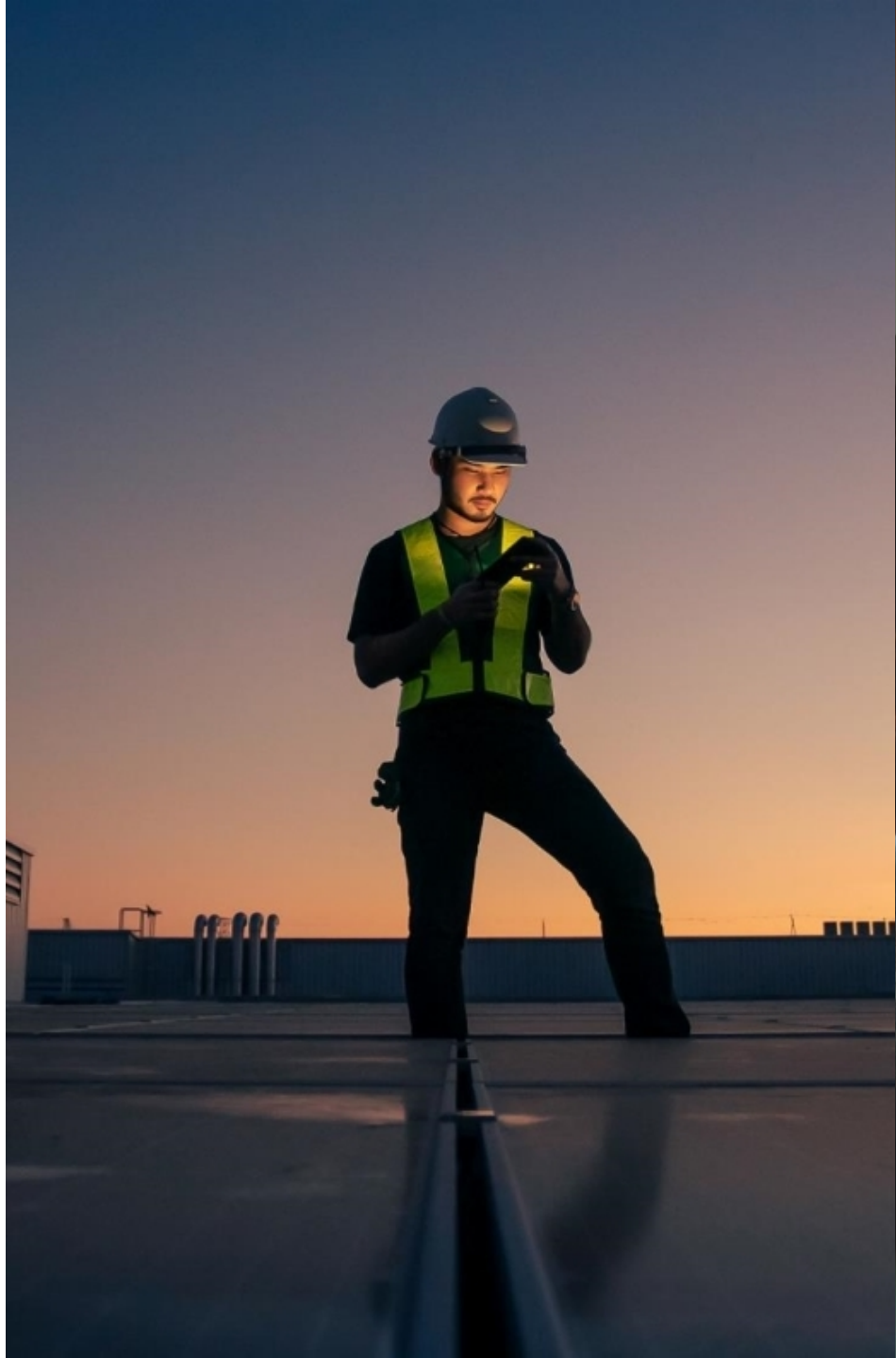
PSEG

PJM's Critical Issues Fast Path – Large Load Additions Stakeholder Process

PSEG Proposal - Updated

November 6, 2025



Changes to PSEG's proposal following 10/24 CIFP-LLA

- Changes are captured in green text throughout the slides.
- Changes are focused on adding further definition around PSEG's load forecasting process enhancements.
  - Additional detail added around criteria for including loads in the load forecast consistent with PJM's *Load Adjustment Request Implementation* document posted to PJM's Load Analysis Subcommittee webpage.
  - Clarification on how PJM reconciles the 3rd party forecast with the EDC large load adjustment requests by aligning the reconciliation with the criteria for including and considering large loads in the load forecast.

Defining the Problem (unchanged)

- **Magnitude of the resource adequacy issue:** Recent scenario analysis from PJM presented at the September 15, 2025 CIFP-LLA meeting shows a scenario-driven 24.7 GW shortfall of generation in 2030* driven by rapid load growth, generation retirements and insufficient new generation coming online. Solutions are needed by 2030 and beyond to address resource adequacy and its adverse impact on reliability and affordability for customers.
- **Supply-side challenge:** PJM cannot direct or plan the build of new generation; PJM relies on its markets to send price signals that attract new generation and retain existing generation, but that takes time.
- **Demand-side challenge:**
  - PJM addresses resource adequacy through price signals, but large load customers like data centers may not be price-sensitive.
  - Data centers are, in significant part, driving rapid load growth. Stakeholders, including the states, have expressed skepticism that "double counting" of data centers is appropriately addressed in the PJM load forecast and EDC large load adjustment requests. PJM does not have the ability to perform "double counting" checks and EDCs do not have visibility outside their respective zones.

** See appendix slides for the range of possible scenarios*

PSEG CIFP-LLA Proposal – Areas of Focus (unchanged)

An "all of the above" approach is needed to address resource adequacy

PSEG evaluated three areas of PJM rules, recognizing that demand-side solutions will be needed in the near-term (before 2030) and that supply-side solutions may take time to implement:

Focus Area 1
PJM load forecasting process

- **Goal**: Greater confidence in the accuracy of the PJM large load forecast by addressing potential double counting of data centers and enhancing transparency
- **Timing:** 2026 (implement for the development of the January 2027 load forecast)
- **End-state objective:** Elimination of double-counting of large load across the region

Focus Area 2
Interconnection queue

- **Goal**: Create an avenue for shovel ready projects to interconnect quickly when needed for resource adequacy without jeopardizing timing and integrity of existing queue
- **Timing**: Target reforms for 2026 implementation (will require FERC approval)
- **End-state objective:** Increase supply in timely manner

Focus Area 3
Capacity market reform

- **Goal:** More accurate valuation of supply resources in the capacity market through seasonal construct
- **Timing**: Possibly in 2027 (will require FERC approval)
- **End-state objective:** More accurate assessment of supply in the market

Focus Area 1: PJM Load Forecasting Process – Roles and Responsibilities Provide Boundaries for Solutions

Roles & Responsibilities:

- **PJM:** Has ultimate authority over, and responsibility for, the regional load forecast
- **EDCs:** have the best knowledge of the status of retail customer interconnection requests
- **States:** regulate EDCs, govern the interconnection of retail customers and have responsibility for planning generation
- **Data Center Developers:** Retail customers, including data centers, are not PJM members and are not subject to PJM rules. Only data center developers know whether they have duplicative interconnection requests across EDC territories. PJM, EDCs and any 3rd party hired by PJM and/or the EDCs cannot know for certain.

Focus Area 1: PJM Load Forecasting Process – Solutions (updated)

Goal: Greater confidence in the accuracy of the PJM large load forecast by addressing potential double counting of data centers and enhancing transparency

Formal process step for state commission review of EDC large load adjustment requests:

Support a process step in PJM's annual load forecasting process to be documented in PJM Manual 19 for EDCs to review large load adjustment requests with state commissions (consistent with PJM's proposal).

Standardize presentation of large load adjustment requests to stakeholders:

EDCs work with PJM to create a standard EDC Large Load Adjustment Request template that is posted to PJM's website and maintained by the EDCs in coordination with PJM.

Establish PJM brightline criteria for including data centers in the ~~near-term~~ load forecast:

~~Only~~ Include data centers ~~with executed agreements with the EDC~~ in the ~~near-term~~ large load forecast consistent with PJM's Load Adjustment Request Implementation Document with updates to PJM Manual 19 ~~to reflect this new requirement~~.

Independent third-party forecast of data center growth performed in parallel with EDC Large Load Adjustment Requests:

PJM to hire an independent consultant with forecasting experience in the data center industry to develop a data center forecast that PJM compares against EDC forecasts.

Focus Area 1: PJM Load Forecasting Process – Criteria for including and considering data centers in the load forecast (new slide)

- Add language to PJM's Manual 19 indicating that submitters of large load adjustment requests follow PJM's *Load Adjustment Request Implementation* document.
- Per PJM's *Load Adjustment Request Implementation* document, EDCs/LSEs submitting large load adjustment requests provide to PJM (summarized in PSEG's words below with quotes in the appendix):
  a. **0-3 year forecast:** Indication that the large load projected to come online in 3 years or less has a Construction Commitment or Electric Service Obligation.
  b. **3-8 year forecast:** Large load has cleared a major milestone to be considered in the 3 to 8 year forecast.
  c. **Ramp rate**: EDC provides for each large load with supporting documentation. As the document states, "Information on ramp rate should strive to be as granular as possible, providing indication of expected sub-annual build-out."
  d. **Utilization factor**: EDC applies a utilization factor and provides supporting data. As the document states, "In the event a request is received only in capacity terms, PJM will apply a factor to convert that to expected demand. This factor would be based on observed historical data either in the requestor's area or elsewhere in PJM in the event that no data is available to try and best approximate this relationship. If an EDC or LSE can provide supporting data that demonstrates a higher factor, PJM will take it into consideration."
  e. **Financial Commitment:** EDC indicates to PJM the dollar amount that each large load has committed to.

Focus Area 1: PJM Load Forecasting Process – 3rd Party Consultant Requirements and Process (updated)

1. **Upon initiation of PJM's annual load forecasting process, PJM hires a 3rd party consultant to perform a <u>data center</u> forecast for the PJM region (akin to current EV data review).**
   - 3rd party consultant must have demonstrated experience load forecasting data center growth.
   - 3rd party consultant's load forecast will not include other large load customers in its scope.

2. **3rd party consultant develops a data center forecast for the PJM region in parallel with the EDC large load adjustment process.**
   - Process for the 3rd party consultant to develop its data center forecast cannot conflict with state law restrictions on customer data disclosure.

3. **PJM reconciles the EDCs' large load adjustment requests with the 3rd party consultant's data center forecast.**
   - PJM considers factors that include the criteria for inclusion and consideration outlined in PJM's *Load Adjustment Request Implementation* guidance document in addition to: (i) the number of data center interconnection requests in each zone; ~~(ii) the level of financial commitments; (iii) whether there is an agreement in place with the EDC; (iv) any potential construction/engineering/procurement milestones that have been met;~~ (ii) the type of large load; (iii) and what discounting factor the EDCs have already applied, if any.
   - An EDC's large load adjustment request will not be reduced by PJM until PJM and the EDC discuss the possible reduction and the EDC has an opportunity to comment.

Focus Area 2: Interconnection Queue (unchanged)

Goal: Create an avenue for shovel ready projects to interconnect quickly when needed for resource adequacy without jeopardizing timing and integrity of existing queue

PJM's Proposal (in PSEG's words)

New expedited queue process that takes 10 months start to finish. Runs in parallel to the existing interconnection queue once the interconnection backlog is cleared, targeting shovel-ready resources not yet considered in the capacity auction. Commercial operation required in 3 years. No more than 10 applications will be considered each year and resources in the expedited queue are studied serially. Additionally, resources are required to:

- Have state sponsorship
- achieve commercial operation in three years or less
- > 500 MW of UCAP
- have a large non-refundable study deposit

PSEG's Proposal

New expedited queue process that takes 10 months start to finish and triggered when the capacity auction is anticipated to clear short of the RTO Reliability Requirement. Targets shovel-ready resources not yet considered in the capacity auction. Each PJM state may nominate X resources, taking into account their respective reliability, affordability and environmental objectives. Additionally, resources are required to:

- Demonstrate site control
- ≥ 500 MW of ICAP
- have a large non-refundable study deposit consistent with PJM's proposal

Focus Area 2: Interconnection Queue – Rationale for changes to PJM's proposal (unchanged)

Incorporate a trigger:

- Tying the trigger to the RTO Reliability Requirement ties the need back to a PJM resource adequacy metric.
- An expedited queue that does not run in perpetuity minimizes any possible impact on the existing interconnection queue and may minimize FERC concerns.

Replace the requirement of the resource to reach commercial operation in 3 years or less with a requirement for the developer to demonstrate site control

- High priority for resources to come online as fast as possible. Demonstrating site control is a key milestone towards demonstrating the resource will be constructed.

Limit number of resources to X per state rather than 10 that require state sponsorship

- Recognizing resource adequacy is a regional challenge, provides states the option of having a greater role in resolving the resource adequacy challenge.
- Avoids favoring any one state.

Focus Area 3: Capacity Market (unchanged)

Goal: More accurate valuation of supply resources in the capacity market through seasonal construct

Sub-Annual Capacity Market – New "Phase 2" Issue Charge

- SACMSTF "Phase 1" scope does not task stakeholders with exploring implementation of a sub-annual capacity market, but does include important prerequisite work.
  - "Phase 1" includes utilizing "an independent consultant to investigate the viability and desirability of proposed sub-annual capacity market solutions. The consultant will provide education and analysis on various aspects of sub-annual capacity models, including approaches used by other ISOs/RTOs, key design principles and criteria, scenario analysis, and modified cost allocation approaches. In addition to education and analysis, the consultant will provide proposed solutions to address the areas identified in the scope of work."
- Create a new Issue Charge for a "Phase 2" of the Sub-Annual Capacity Market Senior Task Force ("SACMSTF") for stakeholders to explore implementation of a sub-annual capacity market.
- Implementation timeframe subject to discussion with PJM, stakeholders and states. Major changes (e.g. to all ELCC values, demand curves, existing FRR parameters) required, all of which will require FERC approval.
- Any implementation timeframe needs to account for possible impact to state-run auctions and challenges experienced in other RTOs/ISOs.

PSEG

you

Heather Svenson
PSEG - Manager RTO Strategy
Heather.Svenson@pseg.com

Gary Mason
PSEG - Manager RTO Strategy
Gary.Masonjr@pseg.com

Appendix- Defining the Problem : Magnitude Scenarios

2030 Resource Adequacy Scenarios

Scenario	
1	2025 Load Forecast, policy-driven deactivations, historic queue completion rates.
2	Additional load from co-location requests, queue completion rates 25% greater than historic rates.
3	Queue completion rates 25% greater than historic rates and no policy-driven deactivations.
4	Scenario 3 and Demand Response equal to the highest amount in the last 5 years
5	Scenario 4 and load flexibility to eliminate supply deficit

Meeting projected demand in 2030 is likely to require new generation beyond what is in the current queue, no further deactivations, additional Demand Response and even then, there may be unmet demand, requiring the need for some form of non-capacity backed service.

Details of each scenario included in appendix slides

From: /https://www.pjm.com/-/media/DotCom/committees-groups/cifp-lla/2025/20250915/20250915-item-05---cifp-scenario-analysis---presentation.pdf

Appendix- Defining the Problem : Magnitude Scenarios

2030 Resource Adequacy Scenarios, UCAP Basis

	2026 Projected Surplus	Minus Load Growth	Plus New Generation	Minus Deactivations	Plus DR and Load Flexibility	2030 Projected Surplus/Deficit
Scenario 1	0.3 GW	(22.9 GW)	6.6 GW	(8.1 GW)	0.0 GW	**(24.1 GW)**
Scenario 2	0.3 GW	(29.2 GW)	12.2 GW	(8.1 GW)	0.0 GW	**(24.7 GW)**
Scenario 3	0.3 GW	(22.9 GW)	12.2 GW	0.0 GW	0.0 GW	**(10.4 GW)**
Scenario 4	0.3 GW	(22.9 GW)	12.2 GW	0.0 GW	3.3 GW	**(7.1 GW)**
Scenario 5	0.3 GW	(22.9 GW)	12.2 GW	0.0 GW	10.4 GW	**0.0 GW**

From: /https://www.pjm.com/-/media/DotCom/committees-groups/cifp-lla/2025/20250915/20250915-item-05---cifp-scenario-analysis---presentation.pdf

Appendix- PJM Load Adjustment Request Implementation (Definitions)

“Construction Commitment: (CC) A construction commitment is a legal obligation that a public utility must discharge in furtherance of its obligation to serve all load and involves constructing transmission system facilities necessary to serve both load being added by an end-use customer as well as existing load in a manner that continues to ensure safe, adequate and reliable service to all customers. Alternatively, a construction commitment could provide indication that corresponding work is in the public utility’s capital project plan. It may describe what will be done, how it will be executed, and if there is any associated payment by an end-use customer.”

“Electric Service Obligation (ESO): The ESO reflects a binding commitment by a prospective retail customer to construct and operate facilities that will use electric services provided by the electric service provider in accordance with the forecast load. That customer obligation may be reflected in different forms, including but not limited to a contract between the customer and the EDC/LSE or in rates, terms, and conditions of service approved by a Relevant Electric Retail Regulatory Authority (RERRA) that control the relationship between an electric service provider and an end-use retail customer. The ESO should reflect a commitment to pay the charges associated with the requested load and can also outline the scope of work, fees, termination, and other relevant information.”

From: https://www.pjm.com/-/media/DotCom/committees-groups/subcommittees/las/postings/load-adjustment-request-implementation.pdf

Appendix- PJM Load Adjustment Request Implementation (3-8 year forecast)

"For identified projects coming online in more than three years but less than eight years, arrangements without construction commitments will be considered for inclusion in the PJM forecast. These projects should either have cleared demonstrable project milestones to be considered certain or be de-rated by some amount to reflect its greater uncertainty. Load projections will be considered if information including, but not limited to, the following is shared: site control, financial commitments, officer certification, long-lead procurement, state support for the anticipated load growth and associated transmission upgrades. Requestors should provide a probability factor with supporting documentation, such as analysis showing that X% that have reached a threshold proceed to construction and materialize in actual metered load. Absent a EDC/LSE provided probability factor, PJM will use a default factor of [50%] probability of projected loads in this horizon coming online."

From: https://www.pjm.com/-/media/DotCom/committees-groups/subcommittees/las/postings/load-adjustment-request-implementation.pdf