



2024/2025 Quadrennial Review Perspectives

May 19, 2025

Industry-leading Developer, Operator, and Investor



Innovation and Investment in Energy

1990

Inception

>\$60B

Debt and Equity Capital Raised

>47

GW Developed and Acquired

>160

Power Generation Projects

>780

Miles of High-Voltage Transmission Completed

6

Transmission Utilities

8

Energy Transition Platforms

>370

Professionals Across Five Offices

LS Power Group

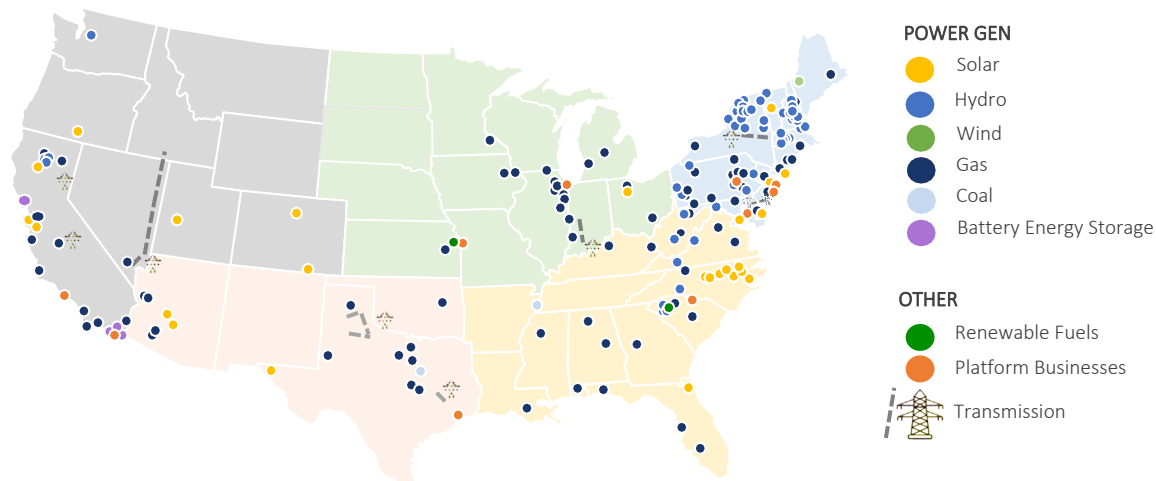
Investments

Power Generation

Energy Storage & Renewables

Transmission

- 160+ power generation projects developed or acquired
- Own and operate 19,000+ MW of power generation (34,000+ MW acquired since inception)
- Nation leading energy transition businesses representing electric vehicle charging, demand response (virtual power plants), microgrids, renewable fuels and waste-to-energy platforms
- 16 transmission projects, including 6 operating utilities, across 8 states and 5 ISO/RTOs that serve 185mm people
- \$13 billion in equity commitments raised



2024/2025 Quadrennial Review Perspectives

- LS Power provides these perspectives to the 2024/2025 Quadrennial Review in response to PJM's April 18, 2025 request
- LS Power has concerns with the current process of the Quadrennial Review.
- The feedback we are providing is consistent with our public statements at the last Quadrennial Review meeting and provides additional context around the direction the process needs to go to be successful.
- The current Quadrennial Review process is on the wrong track, inconsistent with the Tariff requirements, and PJM must step in to course-correct the process in order to remain in compliance with the Tariff and to maintain capacity market participant confidence

2024/2025 Quadrennial Review Perspectives

- The current process commenced in September 2024 with PJM retaining The Brattle Group to perform the “Sixth Review of the PJM’s RPM VRR Curve Parameters”
- Seven stakeholder meetings were conducted with the process finalizing with Brattle recommendations
- Differently than in prior years, PJM included the Brattle recommendations into the process Matrix as the initial solution
- LS Power has concerns with the process and believes it has gone well-beyond the scope of the Quadrennial Review and is inconsistent with the tariff

2024/2025 Quadrennial Review Perspectives

- The Tariff requires that every four years PJM perform:
 - (i) a review of the shape of the Variable Resource Requirement Curve (“VRR Curve” or “Curve”) and based on the simulation of market conditions to quantify the ability of the market to invest in new Capacity Resources and to meet the applicable reliability requirements on a probabilistic basis, provide a recommendation of whether to either modify or retain the existing VRR Curve shape;
 - (ii) update the Cost of New Entry (CONE); and
 - (iii) a review the methodology for determining the Net Energy and Ancillary Services Revenue Offset (EAS Offset)

2024/2025 Quadrennial Review Perspectives

- Regarding item (i), PJM has yet to provide the requisite PJM analysis of the shape of the VRR Curve and has yet to provide PJM's recommendation on whether the current shape of the Curve should be retained or modified.
- In the previous Quadrennial Reviews, PJM provided stakeholders with PJM's recommendations and rationale for changes to the shape of the Curve.
- PJM's consultant Brattle, performed a study that LS Power believes is inconsistent with the Tariff requirements and put forward several recommendations outside the scope of the Quadrennial Review that are fundamental changes to the capacity market design and more appropriate for a separate and deliberate stakeholder process (with the initiation of a new Problem Statement(s) and Issue Charge(s), etc).
- Implementing those fundamental changes would be particularly harmful at this critical time when investment in new supply is of paramount concern to maintain resource adequacy and ensure a reliable grid

2024/2025 Quadrennial Review Perspectives

- Regarding item (ii), the Brattle study provided updated CONE values for various technologies but then shifted the focus to a “Reference Price” as discussed below
- Brattle derived a very convoluted calculation of a “Reference Price”, the purpose of which appears to have been to back into a preferred price to develop a price cap, rather than anchoring the market on fundamentals and the cost of new supply
- These concerns would not be so acute if PJM did not include the Brattle “recommendations” as a valid “proposal” in the solution matrix and instead, as if PJM had presented its own analysis and proposal.
- To us, it appears that PJM is attempting to inappropriately anchor stakeholder discussion around these concepts that are well outside of the Tariff requirements and are clearly an end run around the well-established stakeholder process to develop and implement changes to the markets.

2024/2025 Quadrennial Review Perspectives

- Brattle provided several other recommendations that should not be considered at this time as these are far beyond the scope of the Quadrennial Review. They are:
 - i) moving to the Marginal Reliability Impact (MRI) Curve with no Tariff-required analysis of the current curve,
 - ii) moving to a sub-annual market, and
 - iii) modification of the Reliability Backstop provision in the Tariff that would bifurcate the market into two products with a new product that would be nothing more than a long-term, cost of service product
- Some of these recommendations may very well be worthwhile to pursue in a separate, distinct, and deliberate stakeholder process but should not be included in the Quadrennial Review. LS Power believes we should take a lesson-learned from prior efforts to make substantial, fundamental changes to the market in a rushed process that had unintended consequences due to a lack of proper vetting, analyses, etc

2024/2025 Quadrennial Review Perspectives

- To summarize, LS Power urges PJM to “right this ship” and address the Tariff-based Quadrennial Review requirements
- PJM should reject the Brattle recommendations and report and focus on the specific tariff-required process
- PJM needs to ensure that the markets continue to support investment during this critical time where new supply is necessary and reassure market participants that material out of scope changes to the capacity market will not be adopted unilaterally
- Attempting to modify market structures through non-approved and non-established processes will have the opposite effect and erode investor confidence even further

2024/2025 Quadrennial Review Proposal

- LS Power proposes that PJM take the following action as required by the tariff:
 1. Codify the CT as the Reference Resource moving forward for at least the next four years
 2. Update CONE and Net CONE for the CT Reference Resource
 3. Update the shape of the VRR Curve with updated Net CONE values
- LS Power would support the initiation of Problem Statement(s) and Issue Charge(s) to thoroughly vet, model, and analyze (perform sensitivity analyses) potential changes including the following and looks forward to working with PJM and the other stakeholders on these suggestions:
 - Moving to a sub-annual capacity market
 - Utilizing alternate VRR Curves including the potential use of a Marginal Reliability Impact (MRI) Curve