Incremental Auctions: PJM's Second Step to Securing Reliability

As the PJM region evaluates strategies to meet rising demand, it is critical to recognize that the Base Residual Auction is an important reflection of market conditions, but it is not the final determination of resource adequacy before a delivery year.

While the Base Residual Auction secures capacity three years in advance (under normal circumstances), the Incremental Auctions serve as an important "safety valve," ensuring that new projects in the development pipeline can still be leveraged to maintain grid reliability. Many of these projects may not have been ready or allowed to clear the initial auction, because of the timing of the projects. Also, PJM's reliability requirement can be adjusted in the Incremental Auction to account for projected increase in demand that may not be materializing.

New Capacity and the Development Pipeline

The PJM market is actively responding to signals for more power demand growth. There is a substantial amount of new generation in development expected to be operational by the relevant delivery years.

- In PJM's base residual capacity auction for the 26/27 Delivery Year, 2,669 MW of new capacity cleared the market, and plans to retire 1,100 MW were reversed.
- PJM's Reliability Resource Initiative is projected to fast-track 11 GW of high-impact, ready-to-build projects.
- The 2027/2028 base residual capacity auction cleared 774 MW in new generation and generation uprates.

Capturing Late-Stage Development

Not all viable capacity is secured three years in advance. Incremental Auctions provide a pathway for this new capacity to enter the market as it reaches commercial viability. These auctions allow for flexible integration, which enables PJM to incorporate new resources that have successfully navigated the interconnection queue and met other deliverability targets after the Base Residual Auction has concluded.

Load Forecasting Under Scrutiny

Accurate load forecasting is essential to affordability and reliability. Recently, stakeholders, including regulators in Pennsylvania and Ohio, have begun taking a closer look at regulated utility load forecasting methodologies to ensure they reflect accurate projections of future demand

Over-forecasting can lead to unnecessary consumer costs, while under-forecasting risks reliability.

Incremental Auctions provide an opportunity to "true up" these forecasts. If the initial Base Residual Auction was based on assumptions that have since changed (e.g., economic shifts or updated weather models), the IA allows PJM to adjust its procurement targets accordingly.

What If the Base Residual Auction Does Not Procure Enough Capacity?

The Base Residual Auction is designed to meet PJM's Reliability Requirement, but shortfalls can occur. If the Base Residual Auction clears less capacity than needed for the RTO or a specific constrained area, the Incremental Auction framework kicks in:

- PJM identifies the specific amount and location of the shortfall that needs to be addressed.
- This shortfall is the target for Incremental Auctions, typically held as the delivery year approaches.
- Suppliers can offer additional capacity to cover the shortfall.

In the third incremental auction for the 2024/2025 delivery year, PJM received capacity offers totaling 6,612 MW.

Protecting Consumers When Projected Demand Does Not Materialize

Importantly, Incremental Auctions are not just about buying more capacity—they also protect consumers from paying for power they don't need.

If large projected loads (such as data centers or industrial facilities) do not materialize on schedule, or if energy efficiency adoption accelerates, the forecasted peak load decreases.

If the updated requirement is lower than assumed in the Base Residual Auction, PJM can use the Incremental Auction to effectively unwind excess commitments, preventing ratepayers from paying for unnecessary capacity.

A Flexible Framework for Reliability

Together, the Base Residual Auction and Incremental Auctions form a flexible framework that balances long-term planning with evolving system conditions. This structure supports the development of new capacity, accommodates increased oversight of load forecasting by states, and ensures reliability while minimizing costs to consumers.

ABOUT THE PJM POWER PROVIDERS GROUP (P3)

P3 is a non-profit organization that supports the development of properly designed and well-functioning power generation markets in the PJM region. All of New Jersey is located within the PJM footprint. P3 members own over 88,000 megawatts of generation assets and produce enough power to supply over 63 million homes in the PJM region.

Our members have invested tens of billions of dollars into facilities in the PJM market-place without any regulatory guarantee of a return on that investment. P3 members own and operate virtually all forms of electricity generation (gas, wind, solar, nuclear, coal, hydrogen, battery storage), and provide demand response and battery storage services in certain markets.