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Documenting Electric Capacity Transactions

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What is capacity?

- Generally - the capability of a resource to meet demand.
- Specifically, a product that LSEs and other market participants may buy and sell.
- Capacity may be acquired through generating capacity that a resource owns, through purchases under contract, through demand response, or through capacity market auctions.
- Capacity serves as a market signal to incentivize investment or to increase efficiency while ensuring a buffer exists for situations where outages or periods of high demand place strain on the grid.
- Different ISOs handle capacity differently

PJM

- PJM defines capacity as “a commitment of resources to deliver when needed, particularly in case of a grid emergency. . .[and] [c]apacity, as it relates to electricity, means there are adequate resources on the grid to ensure that the demand for electricity can be met at all times.”
- It operates a capacity market called the Reliability Pricing Model (“RPM”) to ensure that each PJM member has sufficient power supply resources.
- LSEs in PJM must possess a reserve buffer above anticipated demand, which is met in part through acquisition of capacity.
- This requirement is met through generating capacity already owned, through purchases under bilateral contracts, through demand response, or through capacity market auctions conducted by PJM.

PJM

- The mechanism creates price signals to attract investment in infrastructure development and emerging technologies to support adequate power supply in the PJM region.
- PJM requires that LSEs in its region participate in the RPM unless an LSE elects to participate in the Fixed Resource Requirement Alternative discussed more fully below.
- Market participants bid power supply resources into the RPM to either increase supply or reduce demand.
- Such resources can include new generators, upgrades to generators, demand response, and transmission upgrades.
- Each bid represents the participant’s commitment to increase supply or reduce demand by the offered amount.

PJM

- The RPM employs a multi-auction structure with three market mechanisms: a Base Residual Auction, Incremental Auctions, and a Bilateral Market.
- The Base Residual Auction is held annually in May and is the primary market within the RPM and procures resource commitments and allocates the cost of those commitments among LSEs using locational prices.
- For any given delivery year, at least three Incremental Auctions are held after the applicable Base Residual Auction to procure additional resource commitments necessary as a result of dynamics between the Base Residual Auction and the start of the applicable delivery year.
- The Bilateral Market provides a final opportunity for resources to cover any auction commitment shortages by privately negotiating for the purchase or sale of capacity.

PJM

- As an alternative to the RPM, PJM's capacity market includes the Fixed Resource Requirement that gives LSEs the option to submit a Fixed Resource Requirement Capacity Plan to demonstrate how it has met the capacity requirements.
- PJM performs a number of assessments to evaluate whether or not resources honored their commitments during the delivery year for which the capacity obligation exists.
- LSEs that fail a performance assessment will be assessed deficiency or penalty charges, assessed on a pro-rata basis.
- LSEs participating in the Fixed Resource Requirement Alternative will be subject to the same requirements as suppliers participating in RPM auctions.