Firm Capacity Delivery Procedures and Problems with Pseudo-Ties

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POTOMAC ECONOMICS

Overview

- In recent filings before FERC, PJM has taken steps to facilitate participation by external resources in PJM's capacity market.
- To facilitate the delivery of the external capacity in real time, the RTOs should develop firm capacity delivery procedures.
  - ✓ Such procedures would include scheduling provisions to guarantee the firm delivery of energy, and reciprocal enforcement of capacity obligations.
- These procedures should replace PJM's current requirement that resources be pseudo-tied to PJM in order to sell capacity.
  - ✓ It solves no problems that cannot be better solved in other ways and it creates substantial new economic and reliability issues.
  - ✓ No new transmission capability is created by pseudo-tying so it cannot possibly increase deliverability.
  - ✓ It impedes the ability of the RTOs to manage congestion and efficiently dispatch the system.
  - ✓ It undermines reliability because it removes control from the RTO most impacted by the resource.

Firm Capacity Delivery Procedures

- It should not matter where the resource is located in MISO because the export would effectively be sourced from MISO's marginal units.
  - ✓ In exporting power to PJM today, MISO will redispatch its resources to manage any binding constraints just as it does to deliver energy to its own load.
  - ✓ As long as procedures ensure that exports from MISO to PJM are firm (i.e., will not be cut even in emergencies), this energy will be more reliable than energy from a pseudo-tied resource.
  - ✓ The pseudo-tied unit is less reliable because it would be curtailed if it is overloading a MISO constraint.
- To enforce relevant capacity obligations, the RTOs should jointly agree that the exporting RTO will enforce these obligations on behalf of the importing RTO.

Pseudo-Ties are Defacto RTO Reconfiguration

- In essence, pseudo-tying raises the very RTO configuration issues that the Commission has historically addressed through Joint Operating Agreements ("JOAs") and with the market-to-market coordination processes.
- The JOA has been reasonably effective at managing regional flows created by the MISO and PJM dispatch on each other's system.
  - ✓ However, the pseudo-tie requirement will effectively create a much more complex seam without any Commission evaluation.
- Pseudo-tied resources (like all resources) may affect a large number of low-voltage and high-voltage transmission constraints in the areas in which they are located.
  - ✓ Currently, the market-to-market processes generally only address higher-voltage constraints.
- Consequently transferring the dispatch control to a neighboring RTO that is not responsible for these transmission facilities will place a much heavier burden on the market-to-market processes to manage the flows over a larger number of transmission constraints.

Market-to-Market Limitations

- Managing local network flows through the RTOs real-time dispatch is inherently superior to market-to-market coordination.
  - ✓ Market-to-market processes cannot effectively overcome the more granular configuration created by a large quantity of pseudo-tied resources (or even a few critical facilities) through-out MISO area.
  - ✓ Pseudo-tying would likely greatly expand the number of constraints that would need to be coordinated at all voltage levels.
- While vastly superior to TLR, M2M is not equivalent to internal dispatch.
  - ✓ The market-to-market coordination occurs with an unavoidable lag between the time the constraint binds for the MRTO and when any response can be provided by the NMRTO.
  - ✓ There is additional delay in achieving reasonable convergence of congestion costs on the constraint, which increases the inefficiency of pseudo-tying key facilities.
- These inefficiencies and reliability concerns will grow as the number of pseudo-tie resources increases, especially if they are key units.

Summary

- We continue to support robust interregional capacity markets and appreciate that PJM has taken steps in reducing barriers to capacity trading.
- We encourage the RTOs to jointly develop capacity delivery procedures that would better ensure the delivery of capacity-backed energy in real time and enforcement of capacity obligations.
  - ✓ Pseudo-tying is a substantially inferior means to achieve these objectives.
  - ✓ Pseudo-tying creates a number of new problems with managing congestion efficiently, and reducing reliability.
  - ✓ It also creates potential concerns related to applying the market power mitigation procedures in the MISO and PJM tariffs.
- Hence, we are recommending that the capacity delivery procedures replace pseudo-tying as the means to deliver external capacity to PJM.