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Today’s Panelists

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Background
How did we get here?

- **PJM’s “Reliability Pricing Model” (RPM) Capacity Market**
  - Procures virtually all of the region’s capacity needs through a “centralized” auction held three years in advance
  - Single clearing price is paid based on the offer of the last resource needed to meet requirements

- **The “Minimum Offer Price Rule” (MOPR) in RPM**
  - From inception of RPM, most resources permitted to offer at low or even zero prices
  - MOPR included to address limited instances where capacity sellers have an economic incentive to depress market prices (e.g., exercise buyer-side market power)

- **Calpine *et al.* complaint and PJM’s proposal to address alleged “price suppression”**
  - 2016: Group of generators assert to FERC that state policies are distorting prices in RPM
  - 2018: PJM files proposed two-stage auction design to address price distortion assertions
June 2018 – FERC finds that RPM is “unjust and unreasonable”

- On June 29, 2018, FERC issued an order granting Calpine’s complaint and rejecting PJM’s proposed two-stage auction design

- FERC concludes that “out-of-market support” provided to capacity under state policies allows those resources to “suppress capacity market clearing prices”
  - Pointed to growth in state renewable portfolio standards (RPS) and zero emissions credit (ZEC) programs

- FERC preliminarily concludes that existing MOPR must be expanded to additional resources
  - Also concluded that PJM should develop a “resource-specific” carve-out mechanism to give states flexibility to continue to develop resources that become subject to MOPR
  - FERC established additional procedures to take comment before finalizing these directives
FERC’s December Order Expanding the MOPR – What Does it Require?
FERC reaffirms earlier conclusion that certain state policies are capable of suppressing capacity market prices, and therefore disrupt price signals needed for efficient entry and exit in PJM’s capacity market.

No materiality threshold; no minimum resource size; no exempt technology

FERC’s solution to the problem of state policy: subject all generation, storage, and demand-side resources that benefit from State Subsidies to the MOPR. Requires those resources to offer into the capacity auction at an administratively set price floor.

- New resources: price floor based on Net Cost of New Entry (2-5 times higher than recent clearing prices for most new clean technologies)
- Existing resources: price floor based on Net Avoidable Cost Rate (going forward cost).

No resource-specific carve-out or other new mechanism to avoid excess capacity.
P65. “A direct or indirect payment, concession, rebate, subsidy, non-bypassable consumer charge, or other financial benefit that is

(1) a result of any action, mandated process, or sponsored process of a state government, a political subdivision or agency of a state, or an electric cooperative formed pursuant to state law, and that

(2) is derived from or connected to the procurement of

   (a) electricity or electric generation capacity sold at wholesale in interstate commerce, or

   (b) an attribute of the generation process for electricity or electric generation capacity sold at wholesale in interstate commerce, or

(3) will support the construction, development, or operation of a new or existing capacity resource, or

(4) could have the effect of allowing a resource to clear in any PJM capacity auction.”
State Subsidy: what’s in and what’s out?

• OUT: general economic development or siting incentives, payments pursuant to PURPA

• IN:
  – REC sales (from voluntary and compliance buyers)
  – ZECs
  – HB6 nuclear and coal payments
  – Self-supply (rate-based units owned by public power and vertically integrated utilities)

• Up for debate:
  – Tax benefits (e.g., KY property tax exemption for coal generation)
  – Carbon tax/cap & trade programs that provide low-carbon resources with an indirect financial benefit, by imposing a cost on their competitors
Scope: What does the MOPR apply to?

- FERC went broad with the MOPR, applying it “all new and existing, internal and external, State-Subsidized Resources that participate in the capacity market, regardless of resource type” (order at 50). Specifically, FERC rejected proposals to exclude
  - Demand Response
  - Energy Efficiency
  - Resources whose primary purpose is not electricity production
  - Resources receiving *de minimis* subsidies
- Treatment of Demand Response and Energy Efficiency is vague.
- Resources that reduce the need for capacity are not affected, leaving behind the meter solar, price responsive demand, and possibly some public power resources unaffected.
- Unclear if state basic service auctions trigger the MOPR
Exemptions: What doesn’t the MOPR apply to?

Three categories of exemption:

1. Existing intermittent renewables, self-supply resources, demand response, energy efficiency, and storage.
2. Competitive Exemption for new resources (other than gas-fired) that certify to they will forego any State Subsidies.
3. Unit-Specific Exemption, where any resource can demonstrate its actual cost to the Market Monitor to obtain an alternative price floor.
Potential Impact of Expanded MOPR on Advanced Energy Participation in PJM
The ruling will have widespread impact

- Over 92 GW of Wind and Solar Generation interconnection requests, 754 independent requests, are potentially exposed to ruling

- This is comprised of over 62 GW of solar and 29 GW of wind interconnection requests

- Of these requests, over 60 GW are in either System Impact Study or Facility Study

- Many of these projects have invested significant capital into development and may have executed or be negotiating commercial arrangements that rely on capacity revenues
Potential Impact on Voluntary Corporate Purchases of Advanced Energy
FERC’s order exempts voluntary bilateral transactions from MOPR, but leaves uncertainty regarding voluntary RECs

• FERC explicitly states that “voluntary, arm’s length bilateral transactions” should not be subject to the MOPR.

• FERC also states, however, that voluntary renewable energy credits (RECs) cannot be distinguished from state-funded or state-mandated RECs
  – This may leave uncertainty regarding how MOPR will be applied to voluntary RECs generated by renewable energy projects

• FERC also requires PJM to allow capacity resources to certify that they will forgo State Subsidies
  – This may provide an option for resources to certify they will not sell RECs for purposes of compliance with a state program
Potential Impacts on Existing and Emerging State Clean Energy Policies
Impacts on State Policies

• Broad definition of subsidy sweeps in most state clean energy policies and clean energy resources.

• MOPR will increase the costs of achieving state clean energy targets.
  – Many clean energy resources will lose capacity revenue stream, leading to increased cost of state incentives.
  – MOPR will exacerbate PJM’s capacity overprocurement situation, which suppresses energy and ancillary service market prices that are critical for clean energy development. This increases the need for state policies to achieve decarbonization.

• MOPR prevents state clean energy policies from displacing fossil generation; undermines a key objective of those policies.
  – State-supported resources prevented from competing with fossil resources to provide resource adequacy in PJM. RPM prices will rise to ensure retention and new entry by fossil resources.
Next Steps at FERC and PJM
Procedural Next Steps and Timing of Future Auctions

- Requests for rehearing and clarification by FERC due January 21, 2020
  - Rehearing is a prerequisite to petitions for judicial review (due 60 days after order on rehearing)
    - It typically takes many months for FERC to act on rehearing
  - FERC may entertain requests to clarify some of its rulings

- PJM must submit a compliance filing by March 18, 2020
  - PJM is taking input from stakeholders on compliance options, beginning today

- Auction timing
  - FERC directed PJM to propose a schedule for conducting the 2019 and 2020 capacity auctions
  - The May 2019 capacity auction has been on hold pending resolution of this proceeding
Potential Options for States
Options for States

FERC rejected earlier proposals for a ‘resource specific carve out’ that would have enabled resources affected by the MOPR to withdraw from RPM and serve load outside of the capacity market.

That leaves states with few options: forego their energy goals, pay twice for capacity, or opt out of the capacity market under an option known as an FRR plan.

FRR plans:

- Apply to a utility or public power service area.
- Require the FRR entity to submit a plan to PJM showing they have capacity to cover the service area’s entire load, including forecast growth.
- Resources must individually meet existing PJM capacity requirements, but….
- One option allows performance to be measured as a portfolio, creating opportunities for aggregation and risk sharing.
- Must be elected four months prior to the auction, for a minimum of five years.
The MOPR creates a grab-bag of specific policy concerns and opportunities:

– States can consider moving more supported resources behind the meter.
– Expanding the role of Public Power may be attractive, especially for municipalities with their own policy goals.
– MOPR impacts should be considered in design of any DSM program:
  • Designs that reduce the need for capacity rather than supply capacity are preferred
  • Unit-specific cost development should be part of the initial study process
– States supporting supply resources should consider developing unit-specific methods with the Market Monitor in advance, and integrate that process with their program.
FRR Implementation: Considerations for States

• Benefits of FRR:
  – Ability to contract with low-cost clean energy rules
  – Lower reserve margin needed (16% in FRR v. 22% in RPM)
  – Options to address capacity performance risk through pooling and capacity additions rather than penalties.

• Challenges:
  – Overcoming inertia
  – Ensuring competitive capacity procurements, measures to address market power, affiliate deals
  – FRR requires distribution utilities to have an FRR plan covering 100% of load, even that portion served by competitive retail suppliers → May need to modify elements of retail choice statutes, or take other steps to ensure robust retail choice markets.
  – Changes to default service offer processes may be needed.
Additional resources

• “Understanding FERC’s ‘Minimum Offer Price Rule’ Order: A Primer on FERC’s December 2019 Order Impacting PJM’s Capacity Market”, available at: https://info.aee.net/understanding-fercs-minimum-offer-price-rule-order
Thank you for joining today’s webinar!

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