MANAGING THE MOPR: MARYLAND RESPONSE TO FERC ORDER

Thursday, October 1, 2020

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What is FERC?

The Federal Energy Regulatory Commission (FERC) is an independent agency of the United States government that regulates the interstate transmission of natural gas, oil, and electricity. This includes oversight of wholesale electricity markets and reliability standards for the bulk power system. FERC also regulates natural gas and hydropower projects. FERC is comprised of five Commissioners who are nominated by the President of the United States and confirmed by the U.S. Senate.

What is MOPR?

The Minimum Offer Price Rule (MOPR) is a capacity market rule established by PJM originally intended to prevent the ability of certain resources to suppress market clearing prices by offering supply at less than a competitive level. The MOPR creates an offer “floor” for certain resources in the capacity market and prevents market participants from submitting low new entry offers in capacity auctions that would otherwise depress auction clearing prices.
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What is PJM?

PJM Interconnection LLC (PJM) is a regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of 13 states and the District of Columbia. PJM operates competitive wholesale electricity markets and manages the high-voltage electricity grid to ensure reliability for all customers within its footprint.

What is PSC?

The Maryland Public Service Commission (PSC) is an independent state agency that regulates the activities of public service companies and certain passenger transportation companies doing business in Maryland. These include electric and gas utilities and suppliers, telephone companies (land lines), certain water and sewage companies, passenger motor vehicle carriers, taxicab companies operating in certain Maryland jurisdictions, and bay pilot rates. Among other duties, the Commission sets the rates for public service companies, approves the construction of electric generating plants and overhead transmission lines, licenses retail natural gas and electricity suppliers, handles consumer complaints, and promulgates and enforces rules and regulations. The Commission is comprised of five sitting commissioners appointed by the Governor of Maryland and confirmed by the Maryland Senate.
Who has regulatory authority in this?

FERC has jurisdiction over the reliability of the interstate electricity grid and over wholesale sales of electricity in interstate commerce via competitive markets to meet reliability needs. FERC is charged with ensuring that the rates in these markets are just and reasonable. This is done through rules that ensure that markets are competitive. The idea is that competition will result in just and reasonable low prices. States have jurisdiction over generation resources and environmental policies. This includes administering programs that provide incentives for the development of power facilities that contribute to meeting carbon reduction goals. Cooperative federalism is the idea that both federal and state policies, and under both jurisdictions, can coexist, preferably at least cost and while meeting the objectives of both jurisdictions. In the recent orders on PJM’s market rules, FERC indicated that state incentives provided to certain clean or renewable energy resources that compete in wholesale markets could allow those resources to suppress prices at a disadvantage to other resources in the wholesale market. To address this, FERC decided that the MOPR should be applied, which could prevent those resources that receive incentives from state programs from being successful in the wholesale market.
5.14(h-1)(1): General Rule. Any Sell Offer based on either a New Entry Capacity Resource with State Subsidy or a Cleared Capacity Resource with a State Subsidy submitted in any RPM Auction shall have an offer price no lower than the applicable MOPR Floor Offer Price, unless the Capacity Market Seller qualifies for an exemption with respect to such Capacity Resource with a State Subsidy prior to the submission of such offer.
5.14(h-1)(2): Minimum Offer Price Rule. Any Sell Offer for a New Entry Capacity Resource with State Subsidy or a Cleared Capacity Resource with State Subsidy that does not qualify for any of the exemptions, as defined in Tariff, Attachment DD, sections 5-14(h-1)(4)-(8), shall have an offer price no lower than the applicable MOPR Floor Offer Price.
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DEL. LORIG CHARKOUDIAN
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House Economic Matters Committee

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Managing the MOPR: Maryland Response to the FERC Order
Maryland Clean Energy Center 2020 Speaker Series

Asim Haque
Vice President – State & Member Services
PJM Interconnection
Oct. 1, 2020
### Key Statistics

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<tr>
<th>Category</th>
<th>Value</th>
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<tr>
<td>Member companies</td>
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<td>Millions of people served</td>
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<td>Peak load in megawatts</td>
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<tr>
<td>Megawatts of generating capacity</td>
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<td>Miles of transmission lines</td>
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<td>Generation sources</td>
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<td>Square miles of territory</td>
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<tr>
<td>States served</td>
<td>13 + DC</td>
</tr>
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</table>

21% of U.S. GDP produced in PJM

As of 2/2020
Growth in Services

Long-Term

Day-Ahead

Real-Time

Synchronized Reserves

Locational Marginal Pricing

Shortage Pricing

Ancillary Services

Regulation

Capacity Market

Day-Ahead Scheduling Reserve Market

Financial Transmission Rights

Gas

PJM Grid Operations

PJM Markets
2019 Total Wholesale Cost

- Energy: $27.15
- Transmission: $9.52
- Reliability (Capacity): $11.05
- Other: $1.26

2019 Total Wholesale Cost: $48.98
Maryland – Average Emissions (lbs/MWh) (Feb. 7, 2020)
Minimum Offer Price Rule (MOPR): How We Got Here

March 21, 2016
Participant files complaint claiming PJM’s Tariff is unjust and unreasonable due to state subsidization of existing resources participating in PJM’s capacity market.

April 9, 2018
PJM proposes to FERC two separate capacity reform constructs to address the issues identified in the complaint.

June 29, 2018
FERC rejects PJM’s April 2018 filing and finds PJM’s Tariff unjust and unreasonable, because the existing MOPR does not adequately address out-of-market payments to resources.

Oct. 2, 2018
PJM submits updated proposal to FERC in response to guidance in June 2018 order:

Dec. 19, 2019
FERC order expands MOPR to all units receiving state subsidies, including self-supply and renewables.
FRR Alternative

Provides an alternative means for an eligible load serving entity (LSE) to satisfy the unforced capacity obligation of the load in its service area

How it differs from RPM:

- LSE does **not** pay RPM locational reliability charges
- LSE provides FRR plan of capacity resources to satisfy obligation that do **not** receive RPM auction credits
- “Fixed” rather than “Variable” resource requirement

Provisions of the FRR Alternative described in RAA, Schedule 8.1
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Maryland Clean Energy Center

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October 1, 2020
Despite reductions since 2005, PJM emission rates need to fall dramatically to meet targets

PJMs Published Data

- EIA projections indicate PJM region emission reductions will level out by 2025
- Premature retirement of nuclear plants would reverse emission declines
- Backfilling generation from Illinois, New Jersey, and Ohio PJM nuclear plants with new CCGT’s would increase PJM’s rate by ~127 lbs./MWh
- Backfilling them with the marginal PJM unit would increase the rate by ~212 lbs./MWh, undoing half the progress of the last 15 years

PJM’s Actual Emissions

- 441 lbs/MWh 2005-2019
- 851 lbs/MWh to zero

Maryland, Illinois Governor goals 100% CES by 2040 (MD) or 2030 (IL)
Virginia, New Jersey goals 100% CES by 2050
Chicago, Philadelphia goals 80% economy-wide by 2050
**PJM, the IMM, and fossil generators advocated for MOPR expansion in direct response to state clean energy programs**

**PJM** “[T]he time has come to fill a gap in the PJM Tariff, which currently has no way to address the adverse impacts of certain state subsidies on the PJM capacity market’s ability to promote robust supply competition and send appropriate price signals.”

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**IMM** “States have no valid complaint against an effective demarcation of the federal/state jurisdictional divide... States reveal their intent to intrude upon federal prerogatives and change its priorities when they oppose an effective MOPR on the grounds that it creates wasteful excess capacity.”

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**NRG Energy** “[A] strong MOPR would protect PJM’s market from the price suppressive effects of out-of-market subsidies...”

**Calpine** “MOPR is the only way to fully protect competitive markets from the harm caused by artificially low bidding behavior as a result of subsidies. The Commission has accurately identified the problem and correctly proposes to expand the MOPR to address the problem.”

**Vistra** “In most cases, paying twice for capacity [under the MOPR] is the only correct and fair consequence of a state’s desire to participate in a market at the same time it is supporting other policy goals through generator subsidies, and it is a cost that can be anticipated and considered by the state when it is deciding what subsidies it will offer.”

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1/ PJM FERC Filing, Docket No. ER18-1314, at page 5.  
5/ Vistra FERC Comments, Docket No. ER18-1314, at page 11 (05/07/18).
The MOPR threatens renewable expansion in Maryland

- As existing renewable goals increase over time, Maryland will need to procure renewables beyond the supply they have used to meet 2019 goals
- An estimated 850 MW nameplate of new grid-scale solar capacity would be needed for Maryland to meet the in-state solar requirement in 2022/23 without using the ACP*
  - Only 235 MW nameplate of Maryland grid-scale solar that is not already online would qualify for a MOPR exemption; 950 MW nameplate of Maryland grid-scale solar would be subject to MOPR and at risk of not clearing in the RPM
  - Any new projects entering the PJM Queue would be subject to the MOPR as well
- In the 2023/24 and 2024/25 BRAs, Maryland would be even more dependent on new capacity that is subject to MOPR

* State-specific solar carveout is assumed to be met from new distributed solar and new grid-scale solar in equal proportions. Tier I RECs are assumed to be fulfilled by grid-scale solar and land-based wind in equal proportions. “Implied Incremental RPS Requirement” represents the grid-scale renewable capacity necessary to deliver the amount of RECs needed in PJM in excess of 2019 REC requirements.
The MOPR could increase Maryland consumer costs by up to $1 billion over the next decade

- Without responsive state action, the MOPR could raise consumer costs in Maryland by $650 to $950 million over the next nine years as state-supported are pushed out of the PJM capacity market and payments are transferred to fossil generators (with PJM-wide costs ranging from $9.7 to $23.9 billion)
  - This unnecessary cost to consumers – paying for polluting capacity they don’t need - undermines Maryland’s environmental goals and discourages the growth of new renewable energy in the state
- FERC’s MOPR order will have a significant impact on Maryland’s offshore wind program
  - The 368 MW of approved offshore wind projects would not have passed the net ratepayer impact test as currently structured had anticipated capacity market revenues been excluded from consideration
  - In future solicitations, foregoing capacity revenues means Maryland will procure roughly 20% less offshore wind in the future or ratepayers will pay roughly 25% more to achieve the target quantities

The FRR: a solution to the MOPR

- Since the inception of the capacity market, PJM has allowed locally-managed procurement of capacity through the Fixed Resource Requirement (FRR), an alternative to the PJM centralized procurement that has a 5-year minimum term and has been used nine times.

- Benefits of using FRR:
  - **Lowers costs to achieve clean energy goals**: State-supported clean resources will receive capacity revenue, resulting in reduced costs recovered through state programs.
  - **Eliminates duplicate capacity purchases**: Amount of fossil capacity that customers must purchase is reduced since clean capacity gets full credit.
  - **Provides flexibility for capacity payment structures**: PJM centralized procurement is a single clearing price, but FRR payments can be differentiated for clean and non-clean resources to further state environmental goals.
  - **Lowers procurement requirements**: The PJM-required FRR capacity quantity is about 5% less than the quantity paid for by customers from the PJM central procurement.
  - **Allows for capacity performance penalty mitigation**: Capacity resources in an FRR can be pooled during emergency periods, reducing the risk of penalties due to underperformance, particularly for renewables that might not otherwise choose to be a capacity resource.

The FRR mechanism allows states to retain the efficiency of PJM’s regional dispatch while making their own investment decisions in generation, demand response, efficiency and storage.
Maryland has a narrow window for taking action to protect consumers from MOPR impacts

- PJM proposes to execute the next capacity auction (2022/2023) within 6.5 months of FERC approval of its MOPR compliance filing, which would result in the next auction being run by May 2021 with, subsequent procurements in rapid succession every 6.5 months.

- In all cases, FRR elections and capacity plans must be provided to PJM 120 days and 30 days prior to the start of the auction, respectively.

Failure to put alternative mechanisms in place quickly will result in PJM making capacity investment commitments through mid-decade under rules that penalize clean energy.
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OCT 1 Managing the MOPR: Maryland Response to FERC Order
OCT 8 Optimal Solar Siting for Maryland
OCT 15 Ensuring Building Health: Leveraging Technology for Efficient Operation and Safe Environments
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