

MOPR Review (Minimum Offer Price Rule)

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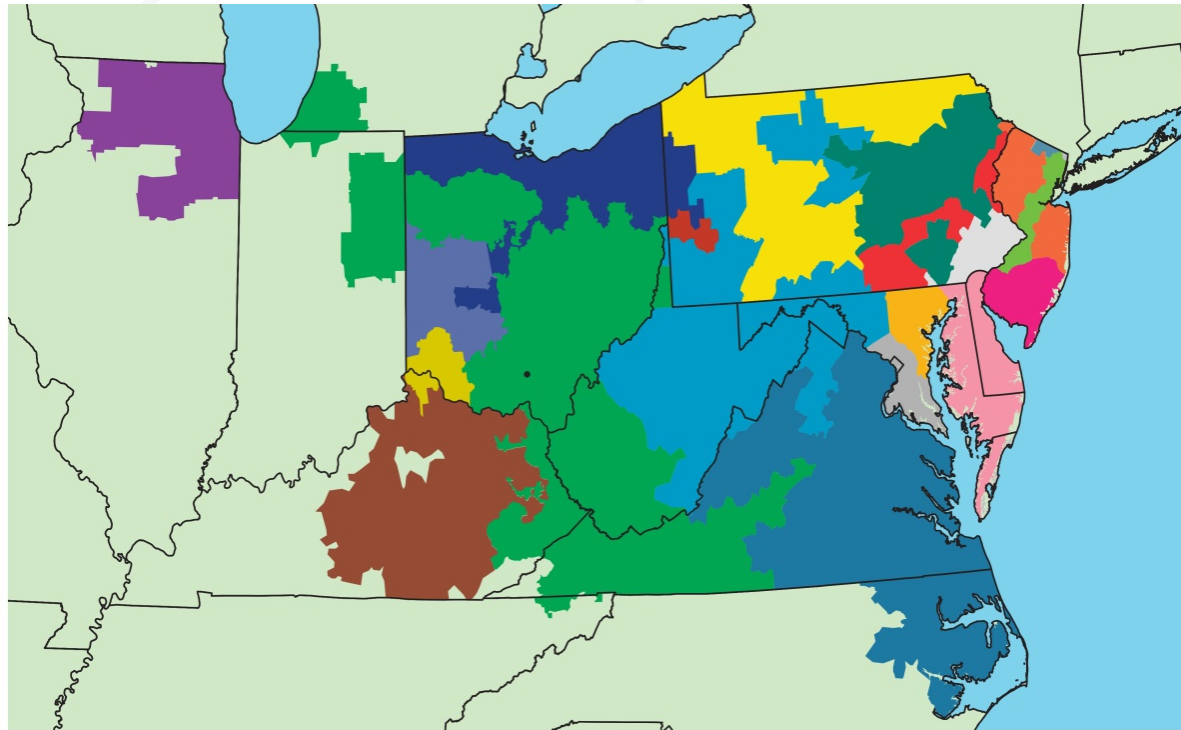
Monitoring Analytics

PJM Market Monitor

- **MMU role is included in PJM tariff per FERC order.**
- **Since 1999, the PJM Market Monitoring Unit has been responsible for promoting a robust, competitive and nondiscriminatory electric power market in PJM by implementing the PJM Market Monitoring Plan.**
- **The MMU was internal to PJM until 2008. A dispute over independence led to the creation of a fully independent external MMU for PJM.**
- **Monitoring Analytics is the Independent Market Monitor for PJM.**



PJM: 21 control zones



Legend

Allegheny Power Company (APS)	Duquesne Light (DLCO)
American Electric Power Co., Inc (AEP)	Eastern Kentucky Power Cooperative (EKPC)
American Transmission Systems, Inc. (ATSI)	Jersey Central Power and Light Company (JCP&L)
Atlantic Electric Company (AECO)	Metropolitan Edison Company (Met-Ed)
Baltimore Gas and Electric Company (BGE)	Ohio Valley Electric Corporation (OVEC)
ComEd	PECO Energy (PECO)
Dayton Power and Light Company (DAY)	Pennsylvania Electric Company (PENELEC)
Delmarva Power and Light (DPL)	Pepco
Dominion	PPL Electric Utilities (PPL)
Duke Energy Ohio/Kentucky (DEOK)	Public Service Electric and Gas Company (PSEG)
	Rockland Electric Company (RECO)

PJM markets

- **Competitive wholesale power markets work.**
 - The goal is power at the lowest possible cost.
- **PJM energy market needs more effective market power mitigation.**
- **PJM capacity market needs to be improved.**
- **Markets are good for all unit types.**
- **Markets are good for renewables.**
- **Markets create incentives for creative responses.**
- **Markets preferred to planning.**
- **Market alternative to subsidies to address carbon:**
 - Carbon price
 - RGGI
- **Markets only work with clear rules.**



Minimum Offer Price Rule

- **What is the issue?**
 - **Generating units with subsidies may suppress prices for competitive resources**
 - **Subsidies are contagious**
- **MOPR requires competitive offers for subsidized resources**
 - **Subsidized offer may be less than the competitive offer in the absence of a minimum offer price rule**
 - **MOPR may require a higher offer**
- **Sources of subsidies**
 - **Subsidies from states**
 - **Subsidies from cost of service utilities**



Minimum Offer Price Rule

- **What is a subsidy?**
 - **An out of market payment that covers all or part of the costs of a capacity resource**
 - **Subsidized resources do not depend on markets for all revenues**
- **Why subsidies?**
 - **NJ/MD: gas fired combined cycle units (2009)**
 - **Reliability**
 - **Renewable resources: Renewable portfolio standards (RPS)**
 - **Carbon reduction**
 - **Off shore wind**
 - **Nuclear**
 - **Regulated utilities**
 - **All costs covered by out of market customer payments**



December 2019 MOPR Order

- **FERC Order defined boundary between federal and state jurisdiction for PJM wholesale power market.**
- **States have authority over generation.**
- **MOPR is not about market power.**
- **MOPR is about defining competitive markets.**
- **FERC Order defined subsidies comprehensively:**
 - **RPS/RECs**
 - **Cost of service regulation (self supply)**
 - **Technology specific: offshore wind; nuclear (ZECs)**
- **Wide exceptions for existing resources**
 - **Did not provide competitive exemption for gas resources**



Impacts of 2019 MOPR Order

- **No identified impact on capacity prices or cleared resources in 2022/2023 capacity auction**
- **Capacity market auctions for 2023/2024; 2024/2025**
 - **Existing nuclear units with subsidies are expected to clear**
 - **Existing renewable resources are exempt**
 - **Existing resources with RPS qualifications are exempt**
 - **Existing self supply resources are exempt**
 - **Existing demand resources are exempt**
- **Estimates of price increases are incorrect**
- **Some states considered leaving the PJM capacity market as a result of the MOPR Order.**
 - **FRR (fixed resource requirement) option**
 - **Higher cost and nonmarket solution**
 - **Market power is an issue**



PJM MOPR proposal

- **Eliminate MOPR for the identified sources of subsidies:**
 - **All state subsidies are exempt**
 - **All regulated utility subsidies are exempt**
- **Create an incorrect and unworkable definition of buyer side market power**
 - **Unnecessary with the effective elimination of MOPR**
 - **Barriers to IMM data gathering and analysis**
 - **Barriers to enforcement**
- **Confusing and inefficient administrative process**
- **Conclusion: PJM markets better off with no MOPR than with PJM's approach to MOPR.**



IMM MOPR proposal

- **Maintain MOPR for key sources of subsidies:**
 - **State subsidies**
 - **Regulated utility subsidies**
- **Define competitive offer correctly (MOPR floor)**
 - **Net avoidable costs (ACR)**
- **Create exemption for uneconomic, emerging technologies**
 - **Off shore wind**
 - **Carbon capture**
- **Conclusion:**
 - **Well defined MOPR respects both FERC and state authority**
 - **Renewables are competitive**
 - **Nuclear is competitive**



PJM vs IMM MOPR proposals

- **PJM eliminates MOPR for known subsidies:**
 - **State subsidies**
 - **Regulated utility subsidies**
- **IMM retains a clear definition of subsidies that trigger MOPR**
- **PJM retains incorrect definition of competitive offer (MOPR floor): Net cost of new entry (CONE)**
- **IMM defines competitive offer correctly: Net avoidable costs (ACR)**
- **IMM: Intent to affect markets is not relevant**
- **Under IMM definition**
 - **Renewables' offers are expected to be competitive, excluding impact of subsidies**
 - **Nuclear offers are expected to be competitive, excluding impact of subsidies**



Long term impacts of next MOPR Order

- **Will subsidies spread further?**
- **Will renewable supply be competitive?**
- **Renewables contribution to capacity/reliability.**
- **Will states implement carbon pricing?**
- **Least cost approach to low carbon power market:**
 - **Option 1: Markets with modified MOPR**
 - **Option 2: Markets with carbon price**
 - **Option 3: Combine Option 1 and Option 2**
 - **Option 4: Markets plus targeted RECs/subsidies**
 - **Option 5: FRR instead of markets**



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