

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

Modernizing Electricity Market Design )

Docket No. AD21-10-000

**Comments of the R Street Institute**

**I. Issue Summary**

On March 23, 2021, the Federal Energy Regulatory Commission (Commission or FERC) convened a technical conference on the role of the capacity market construct in the PJM Interconnection (PJM), ISO New England and the New York Independent System Operator.<sup>1</sup> The discussion covered the implications of retaining the expanded minimum offer price rule (MOPR) in the PJM capacity market, in addition to prospective alternatives to replace PJM’s Expanded MOPR. On April 5, 2021, the Commission issued a notice inviting post-technical conference comments to specific questions regarding the PJM capacity market and implications and alternatives to the Expanded MOPR in PJM.<sup>2</sup>

**II. Summary of R Street Position**

The rise of state subsidies is a legitimate concern for the health of electricity competition, but Expanded MOPR is the wrong medicine for the disease. Generally, price controls by one governmental body to counteract subsidies by another body result in compounding deadweight loss in a marketplace. The only manner that MOPR can improve economic outcomes is if it deters the use of subsidies more than it inflicts additional distortion on the marketplace. It is clear that MOPR is not an effective deterrent and its unpopularity with states may result in the worst-case scenario; states departing from organized markets altogether.

The Commission needs to initiate a pathway to eliminate Expanded MOPR and get a broader dialogue underway about how to do capacity markets well. This necessitates conversation on the capacity market’s role relative to energy and ancillary service markets. The February 2021 cold weather events render the “energy-only” avenue politically infeasible outside of Texas, while the economic pitfalls and reliability risks of capacity procurement under the cost-of-service model are magnifying in the age of variable resources. Now is the time for the Commission to set the tone that competitive power procured

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<sup>1</sup> Federal Energy Regulatory Commission, *Supplemental Notice of Technical Conference on Resource Adequacy in the Evolving Electricity Sector*, Docket No. AD21-10-000, March 9, 2021. <https://www.ferc.gov/media/ad21-10-000-supplemental-notice>.

<sup>2</sup> Federal Energy Regulatory Commission, *Notice Inviting Post-Technical Conference Comments re Modernizing Electricity Market Design*, Docket No. AD21-10-000, April 5, 2021. [https://elibrary.ferc.gov/eLibrary/filelist?document\\_id=14943671&optimized=false](https://elibrary.ferc.gov/eLibrary/filelist?document_id=14943671&optimized=false).

under “right-sized” capacity markets and “up-sized” energy and ancillary service markets is the most efficient and reliable way to provide resource adequacy in the contemporary stakeholder environment.

### III. Responses to Commission Questions

R Street provides the following answers to select questions posed by the Commission. Omitted questions are intentional.

*(1) Have circumstances regarding the nature and scope of state actions to support specific resource types (e.g., new state legislation, new or revised state subsidies, new or revised standards such as increased renewable portfolio standards, etc.) changed in the PJM footprint since the establishment of the Reliability Pricing Model? If so, should the purpose and goals of the capacity market evolve in response to this change? Please explain.*

The nature and scope of state actions have changed profoundly since the establishment of the Reliability Pricing Model. Generally, states have enacted more policies for a variety of reasons, mostly outside the scope of PJM’s core mission, such as altering the environmental performance of the system. Although some states have taken actions in the name of reliability, they have only been ad hoc—such as subsidies for legacy power generators—and none have materially improved system reliability or been predicated on a verifiable reliability defect in PJM. Prior to MOPR, state policies did not aim to systematically re-take “resource adequacy” responsibilities away from PJM. It was the advent of Expanded MOPR that prompted restructured states to seriously entertain options to opt-out of the PJM capacity market.

The purpose and goals of the capacity market should not seek to overstep their original objectives; align the incentives of market participants to maximize economic efficiency in resource entry and exit decisions that satisfy reliability constraints. Capacity market design needs to be modified periodically as the resource mix evolves and, since state policies alter the resource mix, market design should indirectly respond to some changes in the policy environment. But it was never the intent of capacity markets to render judgment on which state policies to accommodate or contradict. If capacity market rules stay true to their original objectives, they will naturally harmonize with states.

*(2) Please explain how the expected quantity of state supported and non-state supported resources, by resource type, has changed since 2018. Please provide the relevant dates of relevant legislation, executive actions, rulemakings, and/or other state actions. How is the Expanded MOPR likely to affect the entry of these resources? Will the expected impact of the Expanded MOPR change over time? Please explain.*

Given the value of confidential data to answer this question, plus the need to model market outcome effects using said data, the question is best suited for the PJM Independent Market Monitor. That said, the effect of MOPR should be measured by its effect on resource allocation—its entry and exit outcomes—as well as the ramifications of price effects on market participants. It is important to keep in mind that just because a resource is mitigated under MOPR does not necessarily mean it experiences an adverse financial outcome; a resource may clear the market and receive the same revenue if MOPR does not influence the equilibrium point of the supply curve that determines the clearing price. At the same time, unmitigated generators and load can be affected by MOPR despite not being mitigated

because of its price effect. The sensitivity with the change over time is heavily a function of where new resource entry falls on the supply curve, considering the grandfathering provisions of Expanded MOPR.

*(5) Does PJM's Expanded MOPR affect states' willingness to remain in PJM's capacity market? Does the Expanded MOPR compel states to choose between relying on PJM's capacity market to meet their resource adequacy needs and achieving state policies? If so, how? Which states are relying on or are considering relying on PJM's Fixed Resource Requirement (FRR), rather than the PJM's capacity market, as a result of the Expanded MOPR and why?*

It is no secret that PJM's Expanded MOPR was a poison pill for state-FERC and state-PJM relations. State utility commissioners from five PJM states were "all highly critical" of Expanded MOPR within two months of FERCs December 2019 Expanded MOPR ruling.<sup>3</sup> Jason Stanek, the Chairman of the Maryland Public Service Commission, saw Expanded MOPR as the leading cause of state-federal tension reaching an all-time high.<sup>4</sup> His view is particularly noteworthy considering his long history of public service at the FERCs.

Expanded MOPR imposed an "unbearable ultimatum to states" by forcing states to choose between relying on PJM's capacity market to achieve resource adequacy and have their state subsidies "mitigated", or retain "unmitigated" state subsidies and exit the organized capacity construct.<sup>5</sup> This prompted states like Maryland, New Jersey, and Illinois to explore legislative or regulatory vehicles to avoid MOPR via the FRR provision.<sup>6</sup> Some proponents of "energy-only" resource adequacy saw this as an opportunity to force the demise of capacity markets and "upgrade" market paradigms. However, as states began examining FRR options it became clear that the most likely outcome was a "downgrade" like leaving PJM and/or reverting to utility-led procurement. This prompted clean and advanced energy advocates, who oppose Expanded MOPR, to encourage states to only consider FRR as a last resort.<sup>7</sup>

After the cold weather events of February 2021, the hope of "energy-only" advocates to stoke "Texas envy" in the markets under FERCs oversight quickly vanished for political purposes, not on the economic merits. These developments have occurred in parallel with a growing concern over resource adequacy in cost-of-service footprints given the evolving generation mix. Such concerns are evidenced by the need for "sufficiency tests" in the CAISO EIM, the basis of MISO's Reliability Initiative and SPP leadership seeing a need for a more coordinated regional approach to resource adequacy. These regional developments are consistent with the last half decade of research on resource adequacy: "[f]or regions committed to capacity planning, the advantage of using markets grows with the advent of emerging

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<sup>3</sup> "PJM's MOPR Quandary: Should States Stay or Should they Go?" *RTOInsider*, Feb. 24, 2020.

<https://rtoinsider.com/rto/pjms-mopr-quandary-should-states-stay-or-should-they-go-155908>.

<sup>4</sup> Catherine Morehouse, "State-federal tension 'at an all time high' between MOPR, net metering attack, says head Maryland regulator," *Utility Dive*, May 22, 2020. <https://www.utilitydive.com/news/state-federal-tension-at-an-all-time-high-between-mopr-net-metering-atta/578471>.

<sup>5</sup> Devin Hartman, "FERCs Unbearable Ultimatum to States: The Minimum Offer Price Rule," R Street Institute, Jan. 23, 2020. <https://www.rstreet.org/2020/01/23/fercs-unbearable-ultimatum-to-states-the-minimum-offer-price-rule>.

<sup>6</sup> Catherine Morehouse, "Maryland, Illinois may pursue legislative MOPR exit, despite new FERCs nearing," *Utility Dive*, Dec. 11, 2020. <https://www.utilitydive.com/news/maryland-illinois-may-pursue-legislative-mopr-exit-despite-new-ferc-neari/592020>.

<sup>77</sup> For e.g., see Advanced Energy Economy, Sept. 3, 2020. <https://www.aee.net/articles/leaving-regional-power-market-is-no-quick-fix-for-states-that-support-clean-energy>.

technologies.”<sup>8</sup> Now that all FERC regions are unquestionably committed to using capacity constructs that are either procured with state oversight or in central markets, the new resource adequacy imperative is to embrace competitive power in better regional capacity constructs.

*(6) Please explain whether the implementation of PJM’s Expanded MOPR has led or may lead to unforeseen impacts, including those enumerated below:*

*a. Several panelists at the conference noted the potential for greater use of the FRR construct as a result of the Expanded MOPR. Please explain any potential impacts or concerns from an increased reliance on PJM’s FRR construct in this manner (e.g., adverse impacts on capacity prices in PJM in zones that remain in the market, the reduced ability to ensure resource adequacy, etc.).*

See answer to question 5.

*(7) What are the benefits of the Expanded MOPR? Please explain.*

None in strict economics terms. Expanded MOPR does not protect “market integrity”, it undermines it by creating negative net benefits, as expected by this type of policy instrument. Generally, price controls by one governmental body to counteract subsidies by another creates dead weight loss in excess of that caused by the subsidy. In theory, the only economic benefit MOPR could create is if it discouraged states from pursuing subsidies they otherwise would have. However, state behavior over the last year indicates that Expanded MOPR appears more likely to erode state commitment to participate in competitive electricity markets than to remain in markets and curtail subsidies.

Subjecting state subsidies to the pecuniary price controls of MOPR is truly “unsound in principle and unworkable in practice.”<sup>9</sup> There is no justifiable application for it. This is why scholars at free market organizations, including the R Street Institute and the Heritage Foundation, supported amendments to the Federal Power Act to clarify that the Commission not use price controls to “fix” state subsidies.<sup>10</sup> Similarly, an American Action Forum scholar underscored that the Commission correctly identified capacity market distortion caused by state subsidies but MOPR “amounts to a doubling down of government intervention” and that the “pain of the MOPR will be ultimately felt by consumers.”<sup>11</sup>

*(8) Is it appropriate for the Commission to apply a MOPR to address state actions intended to suppress capacity market prices? Please explain why or why not?*

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<sup>8</sup> Devin Hartman, “Enhancing Market Signals for Electric Resource Adequacy,” R Street Policy Study, No. 123, Dec. 2017, p. 2. <https://www.rstreet.org/wp-content/uploads/2017/12/Final-123.pdf>.

<sup>9</sup> “Bay picks apart MOPR concept on last day at FERC,” *PowerMarketsToday*, Feb. 7, 2017, p. 1. [http://www.powermarketstoday.com/PMT170207\\_open.pdf](http://www.powermarketstoday.com/PMT170207_open.pdf).

<sup>10</sup> Devin Hartman and Nicolas Loris, “Finding Bipartisan Opportunities In House Democrats’ Climate Plan,” *GreenTechMedia*, July 14, 2020. <https://www.greentechmedia.com/articles/read/finding-bipartisan-opportunities-in-house-democrats-climate-plan>.

<sup>11</sup> Dan Bosch, “Independent Agency Rules Would Further Distort Markets,” American Action Forum, July 7, 2020, <https://www.americanactionforum.org/insight/independent-agency-rules-would-further-distort-markets>.

Intent is difficult to prove. Most state actions that suppress capacity market prices do so incidentally. Regardless, the only action the Commission could take that would improve resource allocation in response to state actions would be to clarify the jurisdictional bright line and preempt actions that crossed it.

*(9) Should the Expanded MOPR be revised or eliminated? If so, what, if any, are any other changes to the PJM Tariff would be necessary or appropriate? Please explain fully.*

Expanded MOPR should be eliminated outright. Revisions are only worth considering in a transitional context.

*(10) If any changes are made to the MOPR rules, is it necessary or appropriate to combine those changes with reforms to ensure that capacity resources are properly accredited for their reliability value?*

Capacity accreditation is a major challenge going forward in PJM and it is best left to a dedicated inquiry. Ad hoc changes to accreditation create artificial risk. Considerations like the methodological complexities of variants of effective load carrying capability require detailed proceedings.

*(16) Should load serving entities be able to procure capacity outside of PJM's capacity market such that PJM would only administer a residual capacity auction (i.e., an auction that removes demand procured outside the capacity market from the demand curve and supply curve would not include capacity procured outside of the capacity market) to procure the remaining capacity requirements? What rules should govern such a residual auction? Would a residual auction provide sufficient incentives for capacity to enter the PJM market when needed to ensure resource adequacy? Please explain.*

Yes, bilateral procurements are a natural complement to any organized market. Many market participants seek to procure heterogeneous products outside the uniform capacity product or even hedge risk exposure to the capacity market by using bilateral markets. Provided that the binding parameters remain the same, the capacity market will clear at the adjusted level and will still influence the terms of the bilateral market regardless of the volume associated with the bilateral or capacity market. One challenge to address is the verification of equivalent capacity procurement in bilateral markets to satisfy capacity obligations.

*(17) Several panelists at the conference stated that removing the Expanded MOPR in PJM would not have any adverse impacts on resource adequacy and in turn reliability. Please explain whether you agree or disagree with this statement and why.*

See answer to question 18.

*(18) Are there differences among the expected short-term, intermediate term, and long term effects of removing the Expanded MOPR on resource adequacy and in turn reliability? Please explain why or why not.*

Provided the supply curve is long enough to satisfy system-wide and zonal capacity constraints, there should not be an adverse effect on resource adequacy from changes in Expanded MOPR. To the extent Expanded MOPR changes affect the composition of the resource mix, any associated reliability vulnerabilities would implicate flaws in other market design elements better addressed through separate mechanisms. Reliability must-run mechanisms serve as an effective backstop, especially in a low load growth context. There is no apparent reliability argument for delaying the removal of Expanded MOPR.

*(19) Is there a concern that merchant resources may fail to receive financing due to state supported resource entry in PJM? Please explain and provide supporting evidence if possible. Please also explain how this consideration bears on the Commission's responsibilities under the Federal Power Act.*

The inability for merchants to access capital would be an extreme condition, but there are lesser conditions the Commission should concern itself with. Growing ad hoc subsidization could create a chilling effect in financial markets that increases borrowing costs via higher rates or tighter debt ratios. Debt servicing constrains could alter competitive dynamics, especially disadvantaging new entry and, along with it, incentives for innovation.

*a. Should PJM's capacity market address this concern, and if so, how? Is there an option to address potential financing challenges by adjusting the parameters that establish the capacity market demand curve, such as changes to the net cost of new entry (Net CONE) estimate? For example, Net CONE estimates could be adjusted by reducing the expected economic life of the reference unit used to establish Net CONE, increasing the reference unit's cost of capital to reflect higher risks, or through changes to the shape of the demand curve.*

Adjusting Net CONE as well as broader market power mitigation practices may be appropriate. Ignoring the heightened risk environment could result in over-mitigation in market power processes. Changes in the investment risk environment may also have implications for elements of capacity market design, especially those oriented towards affecting the investment risk profile, such as the revenue lock-in period for new entry.

*b. Many state policies related to electric generation (e.g., renewable portfolio standards) are specified in statute and include timelines (often decades into the future) that investors can use to estimate the timing, type, and quantity of state supported resources entering PJM's markets and potential market impacts. To what extent does the transparency of such state policies mitigate or reduce these risks to merchant resources?*

The transparency, predictability, scale and timeframe of state policies matter a great deal. Markets adjust to the exogenous conditions of state policy changes more smoothly and efficiently for predictable, transparent, long-term policies. By contrast, the most disruptive subsidies were ad hoc bailouts of large amounts of capacity. The nuclear zero emissions credits were the last straw that ultimately motivated some parties to pursue what became Expanded MOPR.

*(20) What changes are needed to ensure PJM's energy and ancillary services markets send appropriate price signals and ensure sufficient incentives for investment?*

The ideal role of E&AS price formation may hinge on the desired role of capacity markets. For example, if using capacity markets as more of a backstop mechanism is desirable, then E&AS design that effectively yields a Net CONE of zero may be desirable. It is important to note that investors view E&AS and capacity revenues very differently; they discount the latter far more heavily. Efforts to get more of the capacity “missing money” into the E&AS markets should account for this.

Energy and ancillary service (E&AS) market design and capacity market design decisions are typically siloed. This has deterred the ability of a more strategic, holistic approach to integrated market design from progressing. For example, PJM consumers have often resisted changes to energy scarcity pricing in isolation, but may support doing so if done in conjunction with reforms to “right-size” capacity markets, such as pulling the demand curve to the “left” and aligning it with value of lost load parameters.

*(21) What is FERC's responsibility toward states in the PJM region that have chosen a state policy of not subsidizing their preferred resources in light of the competitive capacity market?*

States that do not subsidize their resources are not demonstrably harmed on balance by states that do—their producers are harmed but their consumers actually benefit. If one state chooses to subsidize resources it puts downward pressure on capacity prices, and by extension lowers electric customer rates and generator revenues, for neighboring states. It is possible that rampant subsidies could adversely affect the investment climate overall and artificially increase risk that raises the cost of capital. But such effects are indirect and speculative.

Basic economics on export subsidies delineates these points. Subsidies lower the welfare of consumers in the exporting jurisdiction but increase welfare in the importing region.<sup>12</sup> Despite the adverse economic effect of subsidies, tariffs that attempt to counteract the price-suppressing effects of subsidies actually worsen economic efficiency. At its core, this is why MOPR is not the right tool to mitigate the legitimate economic problem that is state subsidies. In the words of sophisticated consumers who oppose state subsidies and MOPR, “two wrongs don't make a right.”<sup>13</sup>

State subsidies are different from some other forms of anti-competitive state conduct that actually impose uniform harm on neighboring states. For example, states that have enacted the right of first refusal (ROFR) for transmission projects raise project costs for other states and preclude competitive suppliers. As such, consumer groups have opposed ROFR laws not only in their own states but also in neighboring states. By contrast, consumers are harmed by subsidies in their own state, but do not incur the non-bypassable charges of other states' subsidies and actually benefit from lower market prices. Altogether, this delineates why MOPR is incompatible with federalist principles, whereas ROFR presents

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<sup>12</sup> “7.17 Export Subsidies: Large Country Welfare Effects,” International Trade: Theory and Policy. [https://saylordotorg.github.io/text\\_international-trade-theory-and-policy/s10-17-export-subsidies-large-country.html](https://saylordotorg.github.io/text_international-trade-theory-and-policy/s10-17-export-subsidies-large-country.html).

<sup>13</sup> Devin Hartman, “MOPR Madness: 2 wrongs don't make a right,” *Utility Dive*, Sept. 13, 2019. <https://www.utilitydive.com/news/mopr-madness-2-wrongs-dont-make-a-right/562798>.

a clear case of one state harming producers and consumers of another state and justifies FERC action in order to uphold the unprotected states' interests.

*(22) How urgent is the need to reconcile PJM's capacity market rules and state policies? Could PJM or the Commission adopt a phased approach with short-term and long-term solutions? For example, could short-term actions include eliminating the Expanded MOPR and replacing it with a Targeted MOPR? What long-term solutions are needed, if any?*

A phased solution is workable. The Commission should focus on "getting it right" and not sacrifice quality for expediency. The most important thing is for the Commission to provide rule clarity—not rule implementation—in an expeditious manner. Rational state regulators and policymakers will base decisions on long term expectations, not on whether a phased transition period exists. Similarly, new investment in capacity markets is based on long-term revenue forecasts and a temporary solution is only likely to adjust the timing of resource retirements by a year or so.

#### **IV. Conclusion**

RSI respectfully requests the Commission consider the comments contained herein.

Respectfully submitted,

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April 26, 2021