

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

Offer Caps in Markets Operated by Regional  
Transmission Organizations and Independent  
System Operators

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Docket No. RM16-5-000

**REPLY COMMENTS OF THE  
INDEPENDENT MARKET MONITOR FOR PJM**

Pursuant to the notice of proposed rulemaking issued in this docket on January 21, 2016 (“NOPR”), Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM (“Market Monitor”), submits these reply comments to certain submitted in this proceeding on April 4–5, 2016.<sup>1</sup> In the NOPR, the Commission proposes to revise its regulations to require that each regional transmission organization (RTO) and independent system operator (ISO) cap each resource’s energy offer at the higher of \$1,000/MWh or that resource’s verified cost-based incremental energy offer.<sup>2</sup> These reply

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<sup>1</sup> Comments addressed here include: Joint Comments of PJM Interconnection, L.L.C., and Southwest Power Pool, Inc. (“PJM/SPP” or “PJM”); Notice of Proposed Rulemaking Comments of Dominion Resources Services, Inc. (“Dominion”); Comments of Potomac Economics, Ltd. (“Potomac Economics”); Comments of the Midcontinent Independent System Operator, Inc. (“MISO”); Comments of the Southwest Power Pool Market Monitoring Unit on Notice of Proposed Rulemaking (“SPP MMU”).

<sup>2</sup> *Offer Caps in Markets Operated by Regional Transmission Organizations and Independent System Operators*, 154 FERC ¶ 61,038. Current PJM market rules include a \$1,000/MWh system offer cap (up to \$2,000 for cost based offers) and a \$1,000/MWh total compensation cap, including uplift. *See* PJM Operating Agreement (“OA”) Schedule 1 §§ 1.10.1A(d) (energy offer cap) & 3.2.3(m)&(n) (total compensation cap).

comments address certain details about how such rules should relate to pricing emergency energy sales and imports, shortage pricing and virtual trades.

## I. COMMENTS

### **A. Emergency Energy Offers and Imports Should Be Subject to the Same Proposed Rules on Offer Cap, Ex-Ante Verification and Ex-post Review and Compliance.**

PJM/SPP state:

With respect to emergency conditions, the value of energy or load reductions is related to the preservation of system reliability, and prices should reflect the value of the resources being procured during emergency conditions. Notably, the value of energy provided during emergency conditions is greater than the value of energy provided during non-emergency conditions. Given the drivers associated with pricing energy in the day-ahead and real-time energy markets under normal conditions, it is not appropriate to apply the NOPR, and any related final rule, to the purchase of emergency energy or emergency load reductions.<sup>3</sup>

PJM/SPP use the term “value” as if it has meaning independent of a competitive market. The value of energy is the price of energy in a competitive market and not a metaphysical level that is not defined by rules governing competitive offers.

The rules of competitive markets should apply in all conditions including emergency conditions. It is expected that competitive market prices in high demand emergency conditions will be higher than in low demand situations. It is also expected that the ability to exercise market power will be increased in high demand emergency conditions. PJM/SPP fail to address the core concern of the NOPR which is how to permit high competitive prices while not permitting the exercise of market power or manipulation.

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<sup>3</sup> PJM/SPP at 3–4.

PJM/SPP offer no rationale for exempting emergency energy imports from proposed rules regarding an offer cap.<sup>4</sup> The proposed rules about offer caps are most critical during emergency situations. The Commission appropriately found that verification of costs underlying incremental energy offers above \$1,000/MWh is warranted to reduce the potential exercise of market power. The Commission states:

Without such verification, a resource may be able to submit an offer above \$1,000/MWh not because its costs exceed \$1,000/MWh, but rather because it recognizes that its energy is necessary to serve load and that it does not face competition from other resources. Using such an uncompetitive offer to calculate LMPs could result in unjust and unreasonable rates.<sup>5</sup>

PJM/SPP argue to allow precisely the behavior that the Commission seeks to prevent.

Currently, emergency imports can set price in PJM. The Market Monitor recommends that there be a verification process established for such offers. While they do not occur frequently, such emergency offers currently provide an unmitigated opportunity to exercise market power in PJM markets. The small number of such offers makes an ex ante verification process feasible. Such offers should be subject to clear rules governing the short run marginal cost basis for ex ante offers, including opportunity costs, and also subject to an ex post verification process and significant penalties for offers not linked to short run marginal costs. Such emergency import offers should also be subject to the rule that they can set price only if they pass the ex ante verification process. If they do not, they are eligible to receive uplift payments if the offer passes the ex post verification process.

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<sup>4</sup> See PJM Manual 13: Emergency Operations (Revision 59, January 1, 2016) at 27–30 (PJM procedures for emergency energy purchases).

<sup>5</sup> 154 FERC ¶ 61,038 at P 57.

**B. Shortage Prices Should Be Set Dynamically Based on Energy Prices and the Value of Reserves and the Rules Should Be in the Tariff.**

PJM states:

The existing \$850/MWh reserve penalty factor was derived by looking at the average out-of-market lost opportunity costs that PJM paid to market sellers providing reserves during reserve shortage events prior to PJM's implementation of its shortage pricing construct in 2012.[footnote deleted]<sup>6</sup>

The Market Monitor agrees with PJM that the shortage pricing rules need to be revised to appropriately define shortage prices when cost-based offers greater than \$1,000/MWh set price. The Market Monitor disagrees with PJM that when cost-based offers greater than \$1,000/MWh are eligible to set market clearing prices, the reserve penalty factors must match the highest cost-based offer eligible to set price. As recognized by PJM, the current reserve penalty factor of \$850/MWh was derived from an estimate of the average lost opportunity costs that PJM paid to market sellers to provide reserves instead of energy. PJM has not explained how it concludes that when costs increase above \$1,000/MWh, the lost opportunity costs would simply equal the highest cost-based offer eligible to set price.

The Market Monitor recommends that PJM be required to make a detailed proposal to dynamically set the scarcity price based on energy prices and the value of reserves, review the proposal with PJM members and the Market Monitor, and make an appropriate filing with the Commission. PJM's proposal in this matter is inconsistent with the current shortage pricing rules and is unsupported. Any change in the shortage pricing rules must be carefully considered and included in the tariff.

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<sup>6</sup> PJM/SPP at 28-29.

### **C. Virtuals Should Be Capped at \$1,000/MWh.**

A number of parties argue that virtuals, which have no fuel costs, should nevertheless be permitted to offer at levels above \$1,000/MWh along with physical resources. These parties argue that virtuals are needed to facilitate hedging, to promote competition and to promote price convergence.<sup>7</sup> As a general matter, the asserted benefits of virtuals in wholesale power markets have been subject to questions and have not been empirically established. It is unnecessary to create related market power risks in this proceeding while these questions remain outstanding.

Some parties recognize that market power is an issue with virtual bids and offers. MISO states, without support, that market manipulation is “improbable” (at 18). Potomac Economics acknowledges the risk of market manipulation (at 10) and argues that “RTOs should apply the hard cap to virtual transactions when prices in the real-time market exceed \$1,000 per MWh for more than a specified period.” It is not clear why it is acceptable to exercise market power for an undefined specified period, even a period as short as 30 minutes.

PJM states (at 27) that PJM does not believe virtual transactions should be capped at \$1,000/MWh or be subject to a “reasonableness” screen.

PJM’s claim (at 27) that virtual bids were implemented to primarily mitigate market power by allowing financial participants to compete with physical suppliers is unsupported and incorrect. There is no evidence that increment offers have increased competition or would increase competition in extreme market circumstances. The suggestion that virtual offers should be allowed to offer at prices greater than \$1,000/MWh in order to compete with generation offers is at odds with the point and purpose of the NOPR.

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<sup>7</sup> See PJM at 27 (SPP took no position on this issue); MISO at 18; Dominion at 7; SPP MMU at 12 and MISO at 18; Potomac Economics at 10.

An essential point of the NOPR is to limit generation offers above \$1,000/MWh to offers supported by marginal costs. This provides a key protection against market power while recognizing that prices should be high when marginal costs are high.

If the Commission had simply proposed to increase the offer cap to \$5,000/MWh without any link to costs, generation owners could increase offers to \$5,000/MWh whenever they wanted to economically withhold, attempt to exercise aggregate market power, or conceal an outage. But the NOPR does not propose that approach.

The suggestion by PJM and others to permit virtuals to offer without limit at any time is inconsistent with the fundamental principle of the NOPR and would permit the exercise of market power and manipulation through virtual offers regardless of whether the marginal costs of energy were greater than \$1,000/MWh.

Dominion's argument for allowing decrement bids at greater than \$1,000/MWh from generation resources whose verified cost-based offers are greater than \$1,000/MWh still poses significant risk of manipulation. For example, Dominion does not propose to limit the virtual bids to the cost-based offer of the generator.

None of the proposed reasons to permit virtual offers above \$1,000 MWh has merit and none address the ability to exercise market power that would be created. No party explicitly argues that it is appropriate for financial participants without physical positions to make virtual offers or bids without limits, but that would be the outcome of their positions.

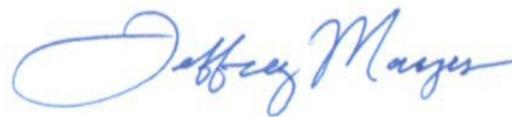
If the Commission wishes to permit some virtuals to offer or bid above \$1,000/MWh, the Market Monitor recommends that such increment offers or decrement bids be limited to liquid trading hubs to minimize the potential to exercise market power or manipulate the markets. The Market Monitor recommends that market participants be required to explain why such offers are appropriate and be subject to ex ante and ex post review. The Market Monitor also recommends that UTC transactions be excluded from any such offers. As UTCs are about spreads between nodes, there is no reason to relax any current rules governing UTC offer behavior.

If the Commission wishes to permit some virtuals to offer or bid above \$1,000 per MWh, these offers and bids should also be subject to after the fact review for whether they resulted in the exercise of market power or market manipulation.

## II. CONCLUSION

The Market Monitor respectfully requests that the Commission afford due consideration to these comments as the Commission resolves the issues raised in this proceeding.

Respectfully submitted,



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