

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

Offer Caps in Markets Operated by :  
Regional Transmission Organizations and : Docket No. RM16-5-000  
Independent System Operators. :

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**COMMENTS**  
**SUBMITTED ON BEHALF OF**  
**THE PUBLIC UTILITIES COMMISSION OF OHIO**

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**April 7, 2016**

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The Public Utilities Commission of Ohio (PUCO) respectfully submits the following Comments in response to the Federal Energy Regulatory Commission's (Commission) Notice of Proposed Rulemaking (NOPR) issued January 21, 2016.

The Commission is proposing to revise its regulations to require that each regional transmission organization (RTO) and independent system operator (ISO) cap each resource's incremental energy offer to the higher of \$1,000/MWh or that resource's verified cost-based incremental energy offer. Under the Commission's proposal, verified cost-based incremental offers above \$1,000/MWh would be used for the purpose of calculating Locational Marginal Prices (LMP) in a region's energy market. The Commission published the NOPR in the Federal Register on February 4, 2016 and established a comment deadline of April 4, 2016.

## **I. BACKGROUND**

The Polar Vortex of January 2014 precipitated a need to examine the energy market in times of emergency conditions.

On June 19, 2014, the Commission initiated a proceeding to improve price formation in the energy and ancillary services markets. At an October 28, 2014 technical workshop, Commission staff explored the purposes of the \$1,000/MWh offer cap and the role the cap plays in market power mitigation. The Commission also called for a comprehensive review of market power mitigation rules in the RTO/ISOs.

Two of the Commission's main goals in the price formation proceeding are to be acted upon here. The Commission proposes that clearing prices in the energy market should reflect the true marginal cost of production, accounting for all physical system constraints. Energy prices also should ensure that all suppliers can recover their costs.<sup>1</sup>

### **A. Current Status of Energy Market Offers**

All six Commission-jurisdictional RTO/ISOs have imposed a \$1,000/MWh cap on incremental energy offers. The \$1,000/MWh cap dates to 1999 when PJM launched its energy market. PJM states that its \$1,000/MWh offer cap was never intended to compel resource owners to submit offers priced below their marginal cost to produce energy.<sup>2</sup>

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<sup>1</sup> See Price Formation in Energy and Ancillary Servs. Mkts. Operated by Reg'l Transmission Orgs. & Indep. Sys. Operators, 153 FERC ¶ 61,221, at ¶2 (2015); see also Price Formation Notice at 2.

<sup>2</sup> PJM Comments at 2. All comments cited herein were submitted in Docket No. AD14-14-000 on or about March 6, 2015.

While the offer cap reins in incremental offers, it doesn't totally control LMP. Scarcity pricing and emergency purchases can cause LMPs to exceed the offer cap.

Treacherously cold temperatures in January 2014 exposed problems with the \$1,000/MWh offer cap. Extreme cold disrupted supply leading to a precipitous jump in natural gas prices and a new understanding of risks to the system.

During the winter of 2014, PJM twice sought waivers from the \$1,000/MWh cap and NYISO also sought waivers. During the winter of 2015, PJM and MISO sought waivers, concerned that the \$1,000/MWh cap could keep a resource from recouping its short-run marginal costs. FERC accepted PJM tariff provisions for the winter of 2015 to temporarily raise the cap to \$1,800/MWh. Prior to the winter of 2016, the Commission: i) accepted PJM tariff revisions to require energy offers above \$1,000/MWh to be cost-based; and ii) raised the hard cap on cost-based offers to \$2,000/MWh for setting LMPs.<sup>3</sup>

## **B. Need for Reform**

The Commission states that the \$1,000/MWh offer cap may no longer be just and reasonable. The \$1,000/MWh cap can depress LMPs below the marginal cost of production. It may force a resource to operate at a loss if fuel costs spike. A resource with short-run marginal costs above that cap could withhold its supply when it is needed most. If several resources have varying offers above \$1,000/MWh, the RTO/ISO doesn't know the bidders' underlying costs or which would be the most efficient resources to dispatch.

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<sup>3</sup>

PJM Interconnection L.L.C., 153 FERC ¶ 61,289, at ¶25 (2015) (PJM 2015/16 Offer Cap Order)

Capacity resources are required to submit offers in the day-ahead energy market. The Commission seeks to ensure that they are compensated at levels that are commensurate with their tariff obligation. For resources that are not subject to must-offer requirements, the Commission wants to create an economic incentive for them to participate when their supply is critically needed.

The Commission states that it considered several alternatives to achieve the price formation goals. The Commission has preliminarily determined that the alternative that best achieves its goals is to retain the existing \$1,000/MWh offer cap except in extreme circumstances. When a resource has verifiable short-run marginal costs in excess of \$1,000/MWh, the Commission proposes to allow the generation unit to recover its costs of providing energy under certain parameters.

## **II. COMMENTS**

The PUCO agrees with the Commission that energy market offer caps as currently structured may no longer be just and reasonable. As the PUCO stated in its comments supporting PJM's November 2015 offer cap tariff revisions, prohibiting generation units from recovering their legitimate marginal costs of production is inconsistent with a transparent energy protocol.<sup>4</sup> The proposed energy market offer cap will allow energy market resources to recover their actual costs through LMPs reflecting actual market conditions while reducing the amount of make-whole or uplift payments to out-of-market resources.

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<sup>4</sup>

PUCO Comments, PJM Interconnection, LLC, ER16-76-000, November 4, 2015.

Furthermore, recovery of legitimate costs by generation units is necessary in order to meet reliability objectives, particularly during infrequent circumstances triggered by external events (e.g., Polar Vortex of 2014).

The PUCO supports the Commission's proposal to require an upfront verification of all cost-based energy offers above \$1,000/MWh to protect consumers from unlimited and unjustified price increases. The PUCO recommends that both PJM and its Independent Market Monitor (IMM)<sup>5</sup> share the responsibility to review and verify offers prior to these offers setting LMPs in the energy market, consistent with PJM's tariff and the IMM's fuel cost policy. The IMM's role regarding energy offer verification is imperative to guard against market power manipulation, and therefore, the IMM's role should be clarified and augmented consistent with these comments. Finally, the PUCO provides recommendations regarding the impact of the Commission's proposal on resource neutrality, import offers, virtual transactions, scarcity pricing and demand response.

#### **A. Offer Cap Structure**

The PUCO supports capping offers at the higher of \$1,000/MWh or the resource's cost-based energy offer while emphasizing the importance of requiring both the IMM and PJM to review and approve cost-based energy offers. An upper-limit hard price cap (i.e., the current \$2,000/MWh cost-based energy offer cap in PJM) should be retained if the

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<sup>5</sup> IMM is referred to as the Market Monitoring Unit (MMU) in the Commission's NOPR. IMM and MMU have the same meaning and the MMU is hereafter known as the IMM for purposes of these comments.



Commission does not require both the IMM and PJM to jointly review and approve cost-based energy offers.

## **1. Commission Proposal**

The Commission proposes that a resource's cost-based energy offer used for the purposes of calculating LMP must be capped at the higher of \$1,000/MWh or that resource's cost-based energy offer. Accordingly, the Commission states that all cost-based energy offers above \$1,000/MWh would be subject to market power mitigation and the requirement that the offer be equal to the short-run marginal costs of the resource. Under the proposal, verified cost-based energy offers are not capped. The Commission seeks comment on whether a hard cap on cost-based energy offers used for calculating LMPs should be included and whether it should equal PJM's current \$2,000/MWh hard cap or some other value.

## **2. PUCO Comments**

The PUCO agrees with the Commission that a resource's cost-based energy offer used for the purpose of calculating LMP should be capped at the higher of \$1,000/MWh or that resource's cost-based energy offer. An upper limit or hard cap on verified cost-based energy offers above \$1,000/MWh is not crucial with the modifications recommended by the PUCO in these comments. As discussed in more detail below, the PUCO believes that both the IMM and PJM must review and approve cost-based energy offers above \$1,000/MWh prior to those offers setting LMP. If, however, the Commission does not find it necessary for both the IMM and PJM to review and approve a resource's cost-

based energy offer, then a hard price cap of \$2,000/MWh is required to guard against market power concerns and unlimited and unverified prices increases.

## **B. Cost-Based Incremental Energy Offer Verification**

The PUCO supports the Commission's proposal to require upfront verification of a unit's cost-based energy offer prior to that offer setting LMPs in the energy market.

Due to the infrequent circumstances that result in resource offers greater than \$1,000/MWh and potential for market power concerns in these circumstances, the PUCO recommends that PJM and its IMM jointly review and verify that offers are compliant with the unit's IMM-approved fuel cost policy and consistent with PJM's tariff.

### **1. Commission Proposal**

The Commission preliminarily finds that verification of the costs underlying cost-based energy offers above \$1,000/MWh is warranted to reduce the potential exercise of market power in the energy market. Market power occurs when a resource may be able to submit offers higher than its costs where it recognizes that its energy is necessary to serve load and it does not face competition from other resources. The Commission proposes that the costs underlying a resource's cost-based energy offer above \$1,000/MWh must be verified "ex ante" or before that offer can be used for the purposes of calculating LMP by the IMM or the RTO/ISO. If a resource submits a cost-based energy offer above \$1,000/MWh to the RTO/ISO and underlying costs cannot be verified before the market clearing process begins, that offer may not be used to calculate LMPs. A resource would be eligible for a make-whole or uplift payment if that resource clears the energy market

and the resource's costs are verified after the fact, or "ex post."

The Commission seeks comment on the ability of the IMM or RTO to timely verify the costs within cost-based energy offers over \$1,000/MWh prior to the day-ahead or real-time market clearing process. The Commission also asks whether the IMM or RTO/ISO may need additional information or new authority to ensure that a resource's cost-based energy offer is an accurate reflection of that resource's short-run marginal cost.

## **2. PUCO Comments**

The PUCO strongly supports the Commission's proposals regarding the need to prevent market power by uncompetitive energy market offers above \$1,000/MWh. While the large majority of offers in PJM's market are \$400 or less (particularly for gas-fired resources)<sup>6</sup>, the purpose of the Commission's proposal is to address infrequent circumstances when fuel sources may be constrained and market power mitigation is critical. *Ex ante* review and verification of cost-based energy offers as proposed by the Commission will address market power and out-of-market payments, which can be significant for load during times of system stress.

The PUCO recommends that both the IMM *and* PJM share the responsibility for

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<sup>6</sup> See SOM 2015, Volume 3, Energy Market, page 117, Tables 3-46 & 3.47, Distribution of MW for dispatchable unit offer prices: 2015 and Distribution of MW for self-scheduled offer prices: 2015, respectively, available at [http://www.monitoringanalytics.com/reports/PJM\\_State\\_of\\_the\\_Market/2015/2015-som-pjm-volume2-sec3.pdf](http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2015/2015-som-pjm-volume2-sec3.pdf).

cost-based energy offer verification above \$1,000/MWh. PJM's IMM is essential to performing market power mitigation<sup>7</sup>, and therefore, should be required to review and verify all cost-based energy offers above \$1,000/MWh jointly with PJM. PJM and the IMM would perform separate and distinct functions in the ex ante review and verification of a resource's cost-based energy offer. The IMM would have the authority to review and verify that offers are compliant with the unit's IMM-approved fuel cost policy. PJM would continue to review and verify offers based on compliance with its tariff. The PUCO envisions the process for review and verification of cost-based energy offers as follows:

- A resource must submit a fuel cost policy to the IMM, which reviews and approves or returns the policy to the resource for modification. A resource must have an IMM-approved fuel cost policy to submit an offer exceeding \$1,000/MWh in the day-ahead or real-time markets.
- An IMM-approved fuel cost policy “should be derived from a verifiable, algorithmic, systematic approach.”<sup>8</sup>

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<sup>7</sup> NOPR at ¶10.

<sup>8</sup> [http://www.monitoringanalytics.com/reports/Market\\_Messages/Messages/IMM\\_Fuel\\_Cost\\_Policy\\_Guidelines\\_20150924.pdf](http://www.monitoringanalytics.com/reports/Market_Messages/Messages/IMM_Fuel_Cost_Policy_Guidelines_20150924.pdf).

- Once a resource has an IMM-approved fuel cost policy, it may submit a cost-based energy offer in the day-ahead or real-time energy market in excess of \$1,000/MWh when such an offer is warranted by system conditions and the resource's short-run marginal costs.
- If the IMM determines that a cost-based energy offer is not compliant with the unit's IMM-approved fuel cost policy, the IMM would advise PJM of its determination.
- PJM would review the offer for tariff compliance issues other than market power.
- If PJM and the IMM are unable to agree upon an ex ante review of a resource's offer, then the offer would default to the \$1,000/MWh cap, as allowed under the Commission's proposal,<sup>9</sup> and that offer would not set LMP.
- Subsequently, during the ex post review of such offer that clears the market at the default level of \$1,000/MWh, if the IMM and PJM are able to agree to the costs underlying the unit's incremental energy offer and verify the offer, then the resource would receive a make-whole payment. If agreement is not reached, the unit owner would have the option to pursue a complaint filing at the Commission.

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<sup>9</sup>

NOPR at ¶66.

- All offers reviewed on an ex ante basis would be subject to ex post review and certification by the IMM and PJM. The IMM would review the offers ex post for compliance with the IMM-approved fuel cost policy and PJM would review the offers ex post for compliance with its tariff. *Ex post* review would be definitive and may reverse ex ante determinations.

The PUCO notes that its recommendation builds on PJM and the IMM's existing procedures for cost development and market mitigation found in PJM's tariff and Manual 15. Additional tariff language may be necessary to clarify the roles of the IMM and PJM to review and verify offers above \$1,000/MWh. The PUCO recommends that the Commission direct PJM to work with the IMM to develop and file revised tariff and manual language to implement the joint review and verification of all cost-based offers above \$1,000/MWh. Finally, the PUCO recommends retaining the requirement found in PJM's Manual 15 that a gas-fired unit annually indicates its choice of a specific gas index or a contract price in its fuel cost policy. This requirement is essential to preventing gas-fired units from selecting the higher priced fuel and less reliable fuel supply procurement during a real-time event.

## **C. Resource Neutrality**

### **1. Commission Proposal**

The Commission proposes that all resources regardless of type would be eligible to submit cost-based incremental energy offers in excess of \$1,000/MWh. The Commission notes that while gas-fired resources are currently the most likely to have cost-based incremental energy offers above \$1,000/MWh, market conditions may change resulting in other resource types with short-run marginal costs above \$1,000/MWh.

### **2. PUCO Comments**

The PUCO agrees with the Commission's proposal to allow all resource types to avail themselves of a more flexible energy market price cap. Fuel cost policies should be neutral as to fuel type and required of every resource whether coal, oil or nuclear units in order to calculate opportunity costs for each resource. Similar to the discussion in Section B of these comments, any offers over \$1,000/MWh, regardless of fuel type, must be based on an IMM-approved fuel cost policy and the cost-based offer must be submitted to PJM and the IMM for ex ante review and approval.

## **D. Imports**

### **1. Commission Proposal**

Given that the verification process for cost-based energy offers is intended to build on an RTO/ISO's existing market power mitigation processes, the Commission proposes that external RTO/ISO resources (i.e., imports) would not be eligible to submit cost-

based offers in another region above \$1,000/MWh. The Commission seeks comment on whether the offer cap proposal should apply to imports and whether cost verification is feasible.

## **2. PUCO Comments**

The PUCO agrees with the Commission that different market power mitigation processes across regions is a concern. As the Commission states, the market mitigation procedures in PJM's neighboring RTOs are different from those within the PJM region.<sup>10</sup> The PUCO recommends, however, that PJM accept an import offer above \$1,000/MWh from a resource in another RTO, and let it set LMP, if the unit can demonstrate that it meets PJM and the IMM's requirements for ex ante review and approval. The offer must be cost-based, including an IMM-approved fuel cost policy, and meet all other PJM requirements. This approach would allow resources to participate and increase supply in PJM's energy market while ensuring that an external resource is treated similarly to an internal resource.

## **E. Virtual Transactions**

### **1. Commission Proposal**

The Commission preliminarily finds that, as financial instruments, virtual transactions have no short-run marginal production costs and, thus, could not provide a cost

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<sup>10</sup>

NOPR at Para 10.



basis for virtual transactions above \$1,000/MWh. Accordingly, the Commission finds that energy offer caps for virtual transactions should not exceed \$1,000/MWh and seeks comment on whether prohibiting virtual transactions above \$1,000/MWh could limit hedging opportunities, present opportunities for manipulation or gaming, create market inefficiencies, or have other undesirable consequences.

## **2. PUCO Comments**

The PUCO supports the Commission's preliminary finding that virtual transactions should remain capped at \$1,000/MWh. In the absence of this requirement, virtual transactions could submit offers above \$1,000/MWh, driving up prices without the necessary correlation to verified costs. Thus, virtual transactions should not be permitted to submit offers above \$1,000/MWh.

## **F. Scarcity Pricing and Demand Response**

### **1. Commission Proposal**

The Commission suggests that RTO/ISOs and their stakeholders may also wish to consider additional tariff revisions, such as changes to scarcity or shortage pricing, raising or removing caps on price-sensitive demand bids, and other means by which load can express its willingness to pay for electricity.

### **2. PUCO Comments**

The PUCO supports the Commission's suggestion that RTO/ISO stakeholders consider revisions to scarcity pricing in light of its proposal. One of the Commission's

stated goals in this proceeding is to allow generation units, regardless of resource type, to recover their actual costs of providing service during times of system stress or emergency. If this proposal is adopted by the Commission, then the need for scarcity pricing may no longer exist. Therefore, the PUCO recommends that the Commission direct PJM and its stakeholders to review scarcity pricing, including scarcity pricing by certain types of demand response, outside of this proceeding to determine whether scarcity pricing is needed, is operating effectively, and whether it applies equally to all resources.

### **III. CONCLUSION**

The PUCO appreciates the Commission's efforts to harmonize energy offer caps within and between regions and to allow for appropriate cost recovery while providing important consumer protections through verifiable cost review. We urge the Commission to adopt the NOPR as modified by the PUCO's comments herein to clarify and strengthen the proposed requirements. The PUCO looks forward to continuing to work collaboratively with the Commission and other interested parties to develop policies that will further effectuate the transparency and cost effectiveness of energy markets to the ultimate benefit of consumers in this state and the country.

Respectfully submitted,

/s/ Thomas W. McNamee

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**Public Utilities Commission of Ohio**

#### **IV. CERTIFICATE OF SERVICE**

I hereby certify that the foregoing has been served in accordance with 18 C.F.R. Section 385.2010 upon each person designated on the official service list compiled by the Secretary in this proceeding.

/s/ Thomas W. McNamee

**Thomas W. McNamee**

Dated at Columbus, Ohio this April 7, 2016.

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Summary: Comments submitted on April 7, 2016 by Thomas McNamee to the Federal Energy Regulatory Commission on behalf of the Public Utilities Commission of Ohio to be submitted into FERC Docket No. RM16-5-000, Offer Caps in Markets Operated by Regional Transmission Organizations and Independent System Operators. electronically filed by Kimberly L Keeton on behalf of Public Utilities Commission of Ohio