**UNITED STATES OF AMERICA**

**BEFORE THE**

**FEDERAL ENERGY REGULATORY COMMISSION**

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| PJM Interconnection, LLC | : | Docket No. ER14-2940-000 |

**COMMENTS  
SUBMITTED ON BEHALF OF**

**THE PUBLIC UTILITIES COMMISSION OF OHIO**

**October 17, 2014**

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**THE PUBLIC UTILITIES COMMISSION OF OHIO**

The Public Utilities Commission of Ohio (Ohio Commission) respectfully submits the following Comments in response to PJM Interconnection, LLC’s (PJM) September 25, 2014 proposed revisions to PJM’s Open Access Transmission Tariff (Tariff) Attach­ment DD, sections 5.10(a)(i) -- (iii) for certain elements of the Reliability Pricing Model (RPM). PJM’s filing is to fulfill its obligation for a periodic review of the shape of the Variable Resource Requirement (VRR) curve used in the RPM Capacity Auctions and key components of the curve, the estimated Cost of New Entry (CONE) for a representa­tive new plant, and the Net Energy and Ancillary Services Revenues (E&AS) that a plant would be expected to earn.

# INTRODUCTION

The Ohio Commission is charged with assuring that Ohioans have access to ade­quate, safe, and reliable public utility services at a fair price. Ohio is a retail choice state for electric generation service. As a state that facilitates competitive electricity markets, we are able to provide a valuable and unique perspective to the Commission.

The decisions PJM makes as the manager of transmission across our state, as well as its operation of energy and capacity markets, directly affect reliability of our electric system and the costs necessary to maintain an optimum level of reliability. Ohio is an energy-intensive state whose demand accounts for approximately 21 percent of PJM’s load.[[1]](#footnote-1) Consequently, the Ohio Commission is well positioned to evaluate the impact of PJM’s filing.

# BACKGROUND

In accordance with its tariff obligations, PJM undertook the third and final Tri­ennial Review of its VRR curve shape, CONE determination, and E&AS revenue offset methodology.[[2]](#footnote-2) PJM hired an independent consultant, The Brattle Group (Brattle) to eval­uate the current construct and recommend changes for the 2018/2019 Delivery Year and thereafter. PJM utilized both the Brattle study and its own analysis to propose changes to RPM.

PJM introduces several changes in order to meet its reliability objectives at a rea­sonable cost. The recommended changes include:

* Revise the shape of the VRR curve to enhance reliability in procurement of capacity in RPM markets. The change would be the first since the curve was introduced in 2006 as a negatively sloped shape. PJM and Brattle agree that the current VRR curve is no longer meeting reliability targets. In its place, PJM proposes a convex curve to satisfy the reliability objective of a loss of load expectation (LOLE) of no more than one event in ten years. PJM maintains that the convex curve limits the expected occurrence of a LOLE of one event in five years to about seven percent. Over the long run, the proposed curve would result in an average procurement cost increase of only about one percent compared to the current VRR curve.[[3]](#footnote-3)
* Update the CONE values largely per the estimates provided by Brattle and consultant Sargent & Lundy, including the previously accepted “bottoms-up” analysis approved by the Commission. In each of the four proposed CONE areas, cost estimates are lower than current tariff. In one notable exception to the current approach, PJM adopts the recommendation of the Independent Marker Monitor (IMM) to use a lower estimate of construction labor costs than Brattle recommended.
* Use the composite index of the Bureau of Labor Statistics to adjust CONE values automatically for years between comprehensive reviews instead of the Handy-Whitman Index, which has overstated cost increases in the past.

# COMMENTS

As discussed below, PJM’s proposal strikes an appropriate balance between relia­bility and price and should be adopted by the Commission, with a minor revision to the Energy and Ancillary Services (E & AS) forecasting methodology. The Ohio Commis­sion notes that the Triennial Review does not consider any of the proposed changes to PJM’s capacity market, and, accordingly, the Commission should also consider this filing in light of other possible capacity market changes.

## A. Shape of the VRR Curve

The Ohio Commission is concerned that PJM’s current VRR curve does not meet its resource adequacy objective. In order to meet its resource adequacy objective, the VRR curve must satisfy a LOLE of no more than an average of one event in 10 years. Based on its simulations, Brattle concludes that the current VRR Curve does not result in sufficient investment in capacity resources to meet the applicable reliability requirements. According to PJM and Brattle, the current curve misses the LOLE goal substantially, with an expectation that load will be lost 1.2 times in 10 years. The Ohio Commission supports PJM’s revisions to enhance reliability objectives.

The Ohio Commission agrees with PJM and Brattle that while the resource ade­quacy objective must be fulfilled, the VRR curve design should avoid excessive price volatility and susceptibility to market power abuse. Prices must reflect year-to-year changes in market conditions to send appropriate price signals but should not be so vola­tile that generation owners cannot make economic decisions to maintain or build power plants. Price volatility in the wholesale market renders market responses more difficult for wholesale customers. The Ohio Commission supports PJM’s proposal to adopt a flat­ter, convex, VRR Curve to meet these objectives.

PJM’s recommended curve meets the resource adequacy objection and provides substantial improvements in protection against adverse reliability outcomes. Specifically, it achieves on average, a LOLE of approximately 0.6 events in 10 years; and limits the occurrence of an LOLE of one event in five years to about seven percent. The Ohio Commission maintains that PJM’s proposed adjustments to the VRR curve, while provid­ing modest cost increases for procurement of capacity, will result in improved market price signals. The change to the shape of the VRR curve will assign greater value to mar­ginal movements on the low-reserves portion of the curve. A more precise VRR curve will enhance RPM’s ability to attract offers and investments by suppliers. This proposal fixes the current situation where a relatively high level of reserves clear in the market, the demand curve becomes vertical and the price quickly falls to zero.

## B. PJM Proposal is Consistent with Other FERC-Approved Demand Curves

The Ohio Commission notes that PJM’s recommended curve is consistent with changes the Commission approved earlier this year for the New York ISO (NY ISO) and ISO-New England (ISO-NE). The PJM-recommended changes are comparable with NYISO and the ISO-NE capacity demand curves whose shapes are either convex or straight. A notable distinction between PJM’s design and the other two RTOs is the price cap of 1.5 x Net CONE remains unchanged from the current parameters. The Ohio Com­mission supports PJM’s decision to maintain the current cap level; PJM’s maximum price is still the lowest when compared to ISO-NE and NYISO.

## C. E&AS Forecasts Should be Forward-Looking

In calculating net E&AS revenue offset, PJM relies upon the most recent three years of energy price and fuel cost data. As explained by Brattle, the use of historical data is not representative of evolving market conditions due to a four- to six- year delay between the historical years and the delivery year.[[4]](#footnote-4) The Ohio Commission notes that the reliance on historical data to project future results leads to uncertain results. The Ohio Commission supports Brattle’s recommendation to adopt a forward-looking E&AS esti­mation approach.[[5]](#footnote-5) The Ohio Commission notes that developing an estimate of E&AS margins, in a similar manner to ISO-NE, from publicly available futures prices will sim­plify the estimation process.[[6]](#footnote-6) This approach will average out extreme weather years and also reflect market participants’ expected changes in fundamentals.[[7]](#footnote-7)

## D. Other PJM Changes to the Capacity Construct

While the Ohio Commission supports PJM’s recommended VRR curve changes, we urge the Commission to consider this change in light of other capacity market reforms that are likely to be filed before the end of the year. The proposal may drastically change the RPM construct and the role of demand resources within PJM. It is possible that some of those changes will negate the need for reforms in other areas. The Ohio Commission recommends that the Commission be mindful of the potential effect of multiple changes to the Capacity Construct and the combined impact the reforms on RPM. We urge the Commission to be mindful of unintended consequences from a major overhaul of PJM’s RPM.

# IV. CONCLUSION

The Ohio Commission supports adoption of a convex VRR curve as a prudent bal­ance between cost and reliability in PJM’s RPM markets. In addition, the updated costs for the CONE calculation used to create the VRR curve, and the switch to the Bureau of Labor Statistics composite index to adjust CONE values in years between comprehensive reviews are just and reasonable and should be adopted.

The Ohio Commission respectfully requests that the Commission order PJM to develop and use a forward-looking approach to calculation of energy price and fuel cost data in its net E&AS revenue offset calculations to more closely approximate true costs and revenues. Further, the Ohio Commission cautions that other changes within PJM may mitigate the need for changes proposed here. With significant reforms to Demand Response and the RPM Capacity Construct likely forthcoming, the Ohio Commission suggests an analysis of the combined impact on RPM.

Respectfully submitted,

*/s/ Jonathan J. Tauber*

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**Attorney for the**

**Public Utilities Commission of Ohio**

# 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 October 17, 2014.

1. *Percentage of PJM Load by State*, Monitoring Analytics (Aug. 20, 2014), http://www.monitoring analytics.com/data/pjm\_load.shtml. [↑](#footnote-ref-1)
2. Henceforth, reviews of the VRR curve shape will become quadrennial. *See,* PJM Transmittal Letter in this docket, September 25, 2014, Footnote 2. Tariff, Attachment DD, Sections 5.10(a)(i) – (iii). [↑](#footnote-ref-2)
3. PJM Application at 2, 17, Table 1. [↑](#footnote-ref-3)
4. Brattle Report at 15-16 [↑](#footnote-ref-4)
5. *Id*. [↑](#footnote-ref-5)
6. The IMM for PJM also supports this approach. *See* FERC Docket No. ER13-535-001 (IMM Comments at 3-4) (Mar. 24, 2013). [↑](#footnote-ref-6)
7. *Id*. [↑](#footnote-ref-7)