

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

Grid Reliability and Resilience Pricing : Docket No. RM18-1-000

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

October 23, 2017

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I. Executive Summary

- The Public Utilities Commission of Ohio (PUCO) urges the Federal Energy Regulatory Commission (FERC) to reject the Department of Energy's (DOE's) proposed rule.
- The PUCO, an experienced economic regulatory body, is deeply concerned about the additional costs that will be borne by Ohio's consumers and businesses as a result of the DOE's proposed rule.
- The DOE makes no attempt to quantify the costs of its proposed rule, which is also deeply concerning.
- PJM Interconnection, LLC (PJM), its stakeholders, and state commissions are already engaged in, and should be permitted to continue to engage in a constructive dialogue on these matters.

II. Procedural Summary

The PUCO respectfully submits the following Comments in response to the rulemaking issued on October 2, 2017 by the FERC, in Docket No. RM18-1-00. The FERC rulemaking is the result of a directive from the Secretary of Energy (Secretary).¹ On September 28, 2017, the Secretary issued a Notice of Proposed Rulemaking (NOPR) pursuant to section 403 of the DOE Organization Act (DOE Act), 42 U.S.C. § 7173, instructing the FERC to exercise its authority under sections 205 and 206 of the Federal Power Act (FPA).² The Secretary directed the FERC to take final action on the proposal known as the “Grid Resiliency Pricing Rule” within 60 days of publication in the Federal Register or in the alternative to issue an interim final rule, effective immediately, with provisions for later modifications after consideration of public comments.³ Comments to the FERC are due on or before October 23, 2017 and reply comments are due on or before November 7, 2017.

¹ This section 403 proceeding has been utilized at least two times in the past, with one attempted use. The first use was in May 17, 1979, when the FERC adopted Order No. 30 in response to a proposal of the Economic Regulatory Administration (ERA) of the Department of Energy. In May of 1980, the Economic Regulatory Administration (ERA) proposed a rule to extend the Commission’s fuel oil displacement program for one year. 45 Fed. Reg. 34,264-02 (1980). This was subsequently extended in May of 1981. 46 Fed. Reg. 27355-01. Then in 1985, the DOE issued another section 403 action directing the FERC to establish rules for “flowing” old gas and incentive pricing for certain categories of old gas. 50 Fed. Reg. 48540. Finally in 2000, the DOE sought comments on whether to initiate section 403 rulemaking. 65 Fed. Reg. 69753.

² The Secretary’s letter was dated September 28, 2017. Five days later on October 2, 2017 the FERC issued a Notice Inviting Comments indicating the initial deadline for comments on October 23, 2017 and reply comments on November 7, 2017. *Grid Reliability and Resilience Pricing*, Notice Inviting Comments. The NOPR was published in the Federal Register on October 10, 2017. *Grid Resiliency Pricing Rule*, 82 Fed. Reg. 46,940.

³ *Grid Resiliency Pricing Rule*, 82 Fed. Reg. 46,940, at 46,941 (2017).

The DOE directed the FERC to issue a final rule to allow the full recovery of costs of certain eligible units physically located within PJM (and other ISOs and RTOs that administer capacity and energy markets), that have the capability to maintain a 90-day fuel supply on site; not currently under cost of service regulation (*i.e.*, generation units in retail choice states); and able to provide voltage support, regulation, operating reserves and reactive power.⁴

By commenting in this docket, the PUCO reserves the right to challenge any and all aspects of this proceeding in an appropriate venue. However, the PUCO, in an effort to contribute to this dialogue and provide our unique perspective, submits the following comments.

III. Ohio's Retail Economy

The PUCO is charged with assuring that Ohioans have access to adequate, safe, and reliable public utility service at a fair price. In this effort, a state, for purposes of determining electric generation service pricing and assuring resource adequacy, may choose between a cost-of-service construct and a market-based construct. The Ohio General Assembly chose beginning in 2001 to subject the electric generation service pricing to the latter, which any state is entitled to, pursuant to the FPA.⁵

⁴ *Grid Reliability and Resilience Pricing*, Notice Inviting Comments, FERC Docket No. RM18-1 (Oct. 2, 2017).

⁵ *See* 16 U.S.C. § 824(b)(1) (“The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but shall not have jurisdiction, except as specifically provided in this subchapter and subchapter III of this chapter, over facilities used for the generation of electric energy.”)

Ohio's economy consists of robust industrial and manufacturing sectors that consume over 1,200 trillion British thermal units (BTUs) of energy annually.⁶ As Ohio is a retail choice state, the PUCO's mission is predicated upon the existence of competitive and efficient wholesale markets, which provide the foundation for default commodity service for non-shopping customers as well as a thriving competitive retail marketplace.

Ohio consumers have a choice to either shop for their electricity needs from certified electric suppliers or to opt for the standard service offer (SSO). The SSO price is determined by periodically procuring a fully bundled energy, capacity and ancillary services product for the non-shopping load from the wholesale market via declining clock auctions. The declining clock auctions overseen by the PUCO have resulted in highly competitive prices. On Oct. 11, 2017, the PUCO accepted bids in First Energy's SSO auction that average \$48.18 per megawatt-hour for the delivery period of June 2018 to May 2020 and an average of \$46.09 per megawatt-hour for the period of June 2018 to May 2021.⁷ Both the PUCO's SSO procurement auctions, as well as the competitive retail electricity suppliers, are reliant upon effective wholesale markets to produce innovative and competitive outcomes for Ohio consumers and businesses.

Ohio, like many other states, has experienced significant changes in its electricity generation sector in recent years. In 2010, coal-fired generators accounted for 72.5% of

⁶ U.S. Energy Information Administration (EIA), *State Energy Data System (SEDS)*, Table C10, (2015).

⁷ *In the Matter of the Procurement of Standard Service Offer Generation as Part of the Fourth Electric Security Plan for Customers of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company*, PUCO Case No. 16-776-EL-UNC (Finding and Order) (Oct. 11, 2017).

the state's generating capacity, while natural gas fired generators comprised 16.6% of installed capacity. As of 2016, coal accounted for 59.5% of installed capacity, while natural gas had increased to 24.2%. While Ohio has experienced losses in generating capacity, with over 6.5 gigawatts of unit deactivations since 2010, the state has also attracted over 4.4 gigawatts of new investor-supported natural gas combined cycle (NGCC) generation that is either online or under construction, with over 6 gigawatts of additional projects that have been recently certificated or are pending review by the Ohio Power Siting Board (OPSB).⁸ The PUCO notes that during this period of substantial change, Ohio's fuel resource mix has actually become more diverse and resource adequacy has been maintained without exception.

IV. PJM's Wholesale Power Markets

As detailed in Section III, Ohio is a retail choice state, and as such, its investor owned utilities depend on the competitive wholesale market for capacity and energy pricing. The proposed rule affects only those RTOs and ISOs that administer competitive capacity and energy markets. RTOs and ISOs with competitive markets must not only address the physical requirements of power delivery, but must also be concerned about both the cost and the allocation of cost responsibility. The PUCO avers that the wholesale competitive market, while not without its problems, is functioning fairly well. There is an abundance of generation available in the capacity market, there is easy access

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PJM Generator Deactivation Summary Sheets, <http://www.pjm.com/planning/generation-deactivation/gd-summaries.aspx> (last visited Oct. 17, 2017); OPSB New Generation Information, <https://www.opsb.ohio.gov/opsb/index.cfm/information/gas-fired-generation-facilities/> (last visited Oct. 19, 2017).

to fuel in the energy market, and there are liquidity and hedging mechanisms in the financial market. Ohio's investor owned utilities are members of PJM, and PJM operates its competitive wholesale markets by procuring, annually, through its Reliability Assurance Agreement (RAA),⁹ the commitment of supply resources to maintain the necessary reserve requirements per the Loss of Load Expectation (LOLE)¹⁰ criterion. Further, PJM develops annually through its Regional Transmission Expansion Plan (RTEP) process the transmission upgrades that are necessary to maintain and preserve the reliability of the bulk power system (BPS). The PUCO believes that reliability standards, resource adequacy, and transmission planning are essential components of PJM's wholesale power markets as explained in greater detail, below:

A. Reliability Standards

In its report "PJM's Evolving Resource Mix and System Reliability"¹¹ (system reliability report) that was published in March of this year, PJM stated that it currently meets all NERC reliability standards based on its RTEP and RAA processes;¹² PJM meets the N-1-1 contingency for transmission planning; the N-1 contingency for operations, and the LOLE criterion for planning reserves.¹³

⁹ PJM Interconnection, L.L.C. submits tariff filing per 35.13(a)(2)(iii), FERC Docket No. ER13-1166

¹⁰ North American Electric Reliability Corporation, *Planning Resource Adequacy Analysis, Assessment and Documentation* <http://www.nerc.com/files/BAL-502-RFC-02.pdf> (last visited Oct. 22, 2017).

¹¹ PJM Interconnection, PJM's Evolving Resource Mix and System Reliability (Mar. 30, 2017).

¹² *Id.* at 33-38.

¹³ *Id.* at 35-36.

B. Resource Adequacy

PJM's capacity market design, known as the Reliability Pricing Model (RPM), annually procures resource commitments on behalf of load serving entities, three years in advance of delivery. The performance of these markets has been evaluated to be competitive by PJM's independent market monitor, Monitoring Analytics.¹⁴

In 2015, PJM introduced a new capacity product, called Capacity Performance, in response to events of the Polar Vortex. Capacity Performance addresses the increasing risk of fuel security at generating plants.¹⁵ Capacity Performance introduced new stringent performance requirements for generating units, designed to ensure reliability of the system and to provide the incentives necessary for asset owners to invest in firm fuel supply, operations and maintenance. By 2020, all capacity resources within PJM must meet the obligations required by the Capacity Performance product.

PJM has undergone a dramatic transformation in the electricity generating sector in recent years. Throughout this challenging period, PJM's capacity market has successfully attracted new, highly efficient, investor-supported NGCC generation in Ohio and elsewhere, while simultaneously allowing inefficient and high cost generators to retire, all without endangering resource adequacy. In fact, PJM reserve margins in recent years are increasing and are consistently in excess of the levels necessary to ensure reliability. PJM's procured reserve margin under RPM is 19.8% above expected peak

¹⁴ Monitoring Analytics, LLC, *State of the Market Report for PJM: January through June*, at 89, 219, and 397 (Aug. 10, 2017), available at http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2017/2017q2-som-pjm.pdf.

¹⁵ PJM Interconnection, PJM's Evolving Resource Mix and System Reliability at 35.

load for the 2018/2019 delivery year, increasing to 22.4% in 2019/2020 and to 23.3% in 2020/2021, or 6.7% higher than the target reserve margin of 16.6%.¹⁶

C. Transmission Planning

PJM also provides for a robust stakeholder process for planning future transmission system needs. PJM's RTEP process identifies transmission system improvements needed to ensure the economic and reliable operation of the bulk power system. This process has proven to be effective, despite challenges presented by emerging factors such as distributed energy resources, the changing resource mix, and flattening load growth.

V. Need for Reform

The DOE states that “Nevertheless, the fundamental challenge of maintaining a resilient electric grid has not been sufficiently addressed by the Commission or the ISOs and RTOs ... FERC must adopt rules requiring the Commission-approved ISOs and RTOs to reduce the chronic distortion of the markets that is threatening the resilience of the Nation's electricity system.” The PUCO believes that the fundamental market principles are sound in PJM's wholesale markets. As stated previously, the current market is attracting new generation, is more fuel diverse, and provides appropriate incentives and penalties for performance. Overall, wholesale capacity and energy prices have been declining for consumers of electricity.

¹⁶ PJM Interconnection, *PJM 2020/2021 RPM Base Residual Auction Results*, (May 23, 2017), available at <http://www.pjm.com/~media/markets-ops/rpm/rpm-auction-info/2020-2021-base-residual-auction-report.ashx>..

In its system reliability report, PJM stated that its current resource fleet is diverse and reliable; this includes coal, nuclear, natural gas, renewable generation, demand response, and other types.¹⁷ This doesn't mean, however, that PJM's markets are perfect. As a matter of fact, in its system reliability report, PJM expressed a concern regarding a future generation mix whereby a large portion of its fleet is fueled by natural gas. PJM concluded its report with a set of questions, such as: whether the current structures of the capacity, energy and ancillary services markets are fairly compensating particular generation attributes that contribute to the resiliency of the BPS, and whether a certain quantity of each generation fuel type should be procured in the annual RPM base residual auction, in the day-ahead energy market, or in the real-time dispatching of power. Answers to the questions of resilience and energy market reforms are currently being discussed by PJM, the states, and stakeholders.

A. Resilience

The concept of grid resilience was extensively discussed in PJM's system reliability report. PJM stated that a resilient energy system is robust and has the capability to "tolerate disturbance and to continue to deliver energy services to consumers."¹⁸ In the context of the BPS, PJM stated that planning for resilience is "preparing for operating through and recovering from a high impact low frequency

¹⁷ PJM Interconnection, PJM's Evolving Resource Mix and System Reliability at 37-38.

¹⁸ *Id.* at 6.

event.”¹⁹ This statement implies that the concept of a resilient BPS is larger than simply maintaining a diverse generation resources fleet. Rather, it is: a) reducing the vulnerability of critical transmission assets to major disturbances (physical and cyber security attacks or extreme weather conditions) through RTEP process enhancements; b) reducing the dependence on critical natural gas pipelines or compressors through dispatching algorithm enhancement and further gas and electric coordination; and c) reducing the time of recovery from a major disturbance through lessons learned from previous major outages and through training exercises.

B. Energy Market Reforms

In a recent white paper,²⁰ PJM introduced a number of market-based energy reform concepts for maintaining a diverse portfolio of generation by: a) providing large inflexible generators that contribute to serving load an opportunity to recover all of their production costs; b) addressing the negative pricing phenomenon; and c) compensating load following generators for providing PJM operators with dispatching flexibility during periods of steep demand reductions/increases or steep supply reductions/increases as a result of intermittent resources.

The PUCO staff is in the process of evaluating such market-based reforms and the associated impacts on Ohio consumers. The PUCO staff is active in constructive discussions with the PJM staff, PJM stakeholders, and with other state commissions in

¹⁹ PJM Interconnection, PJM’s Evolving Resource Mix and System Reliability at 37.

²⁰ PJM Interconnection, Energy Price Formation and Valuing Flexibility (Jun. 15, 2017).

the PJM footprint. Once the energy reforms are fully developed, the PUCO will be prepared to make clear and refined recommendations to the FERC. In the meantime, the PUCO urges the FERC to allow PJM to continue to work through these issues.

VI. Cost Impact of DOE's Proposal

In order to provide the FERC with an estimated cost impact of the DOE's rule, the PUCO submits the following information. In the PJM footprint, Ohio, Illinois, Pennsylvania, New Jersey, Delaware, Maryland, and the District of Columbia are considered full retail choice regions. Generation units that satisfy the DOE's set of criteria in the aforementioned geographic regions of PJM have an estimated current summer peaking capacity of more than 52 gigawatts; about 28 gigawatts of nuclear and more than 24 gigawatts of coal.²¹

During one of the PUCO's Power Purchase Agreement (PPA) proceedings, analysts estimated the net impact to consumers at about \$0.5 billion per year.²² This estimate was the potential impact from compensating at cost-plus one nuclear and one coal generation station in Ohio with a total summer capacity of about 3.2 gigawatts. Assuming the DOE's proposed rule prevails and more than 52 gigawatts of coal and nuclear generation are compensated at cost-plus, the PUCO avers that this could

²¹ SNL power plant summary, SNL.com.

²² Morgan Stanley, FirstEnergy Corp (FE) Pulling Out All the Stops, but FERC & Ohio Risks Are High (May 6, 2016).

potentially increase costs on consumers and businesses in PJM's retail choice states by ***\$8.1 billion annually***.²³

Granting cost-plus compensation to all generation units that meet the DOE's proposed criteria would undoubtedly have a deleterious impact on PJM's administered wholesale markets and, as a result, on the retail prices that consumers would ultimately pay. Under DOE's proposed rule, uneconomic power plants would remain in the market, perhaps some may even decide to re-power, resulting in an ever-increasing supply of generation that is not needed but fully compensated. As a corollary, highly efficient and economic power plants that are ineligible for cost-plus compensation may exit the market. The PUCO is deeply concerned that Ohio's consumers, businesses, and economy may incur billions of dollars of new costs that would negatively impact economic development and job growth.

Furthermore, the DOE makes no attempt to quantify or even project the cost of its proposal, nor does it limit payments to just the uneconomic generation units that provide a benefit. Every generation unit that qualifies pursuant to the DOE's proposed rule receives full compensation for all of its costs, including a fair rate of return, regardless of need or actual cost. The DOE's failure to conduct a cost analysis, or any other economic analysis of even superficial granularity is irresponsible.

While it may be reasonable to provide compensation for certain attributes of non-flexible generation units and for transmission grid resiliency, we do not believe it is

²³ Assuming general uniformity, an estimate of the potential cost may be computed as follows:
 $\$0.5 * (52\text{GW} / 3.2\text{GW}) = \$8.1 \text{ billion}.$

reasonable to grant cost-plus recovery to every generation unit that meets the DOE's proposed criteria. The PUCO urges the FERC to focus on both the purpose and result of the proposed rule, and to not burden ratepayers with additional costs that could lead to an economic disaster for Ohio's consumers and industry.

VII. Conclusion

The PUCO appreciates the opportunity to comment in this docket. Quite simply, the consequences if the FERC adopts the DOE's proposal in its section 403 NOPR could be dire. The PUCO contends that the proposed rule could upend a state's current authority to choose the regulatory paradigm for its utilities, by forcing all organized markets to implement cost-plus rates. This will most certainly negatively impact the ability of the PUCO to assure just and reasonable rates for our consumers and businesses.

Therefore, the PUCO urges the FERC to allow PJM, its stakeholders, and states to continue to constructively address the drivers behind the DOE's proposal – energy price formation and grid resiliency. Market solutions to these issues must be based on sound economics and cost/benefit analyses, and should be grounded in scientific inquiry. The PUCO contends that this approach will preserve the benefits of the competitive markets while providing an equitable solution to both suppliers and consumers.

Respectfully submitted,

/s/ Thomas W. McNamee

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VIII. Certificate of Service

I hereby certify that the foregoing have been served in accordance with 18 C.F.R. Sec. 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 23, 2017

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Summary: Comments submitted on October 23, 2017 by Assistant Attorney General Thomas McNamee to the Federal Energy Regulatory Commission to be filed in FERC Docket No. RM18-1-000. electronically filed by Kimberly L Keeton on behalf of Public Utilities Commission of Ohio