

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

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

**REPLY COMMENTS OF PJM INTERCONNECTION, L.L.C.  
ON THE UNITED STATES DEPARTMENT OF ENERGY PROPOSED RULE**

PJM Interconnection, L.L.C. (“PJM”) hereby submits its reply comments on the Notice of Proposed Rulemaking submitted to the Commission by the Secretary of the United States Department of Energy (“DOE”) on September 28, 2017, as revised upon publication in the Federal Register on October 10, 2017 (“DOE NOPR”).<sup>1</sup>

**A PROPOSED PATH FORWARD**

The Commission has received hundreds of comments in this docket,<sup>2</sup> most (including those of PJM’s<sup>3</sup> and the ISO/RTO Council<sup>4</sup>) arguing to reject the DOE NOPR’s proposed remedy and a few proposing its immediate implementation. What is especially remarkable about most of the filed comments, however, is the persistence of two recurring themes, which together point the Commission to a reasonable path forward on the issues implicated by this proceeding:

1. The importance of *timing*, given a common recognition of significant changes in the resource mix, and an emphasis on the need for timely Commission consideration of whether, and if so what, additional reforms may be needed to regional market rules in light of those significant changes; and

---

<sup>1</sup> *Grid Resiliency Pricing Rule*, 82 Fed. Reg. 46,940 (proposed Oct. 10, 2017).

<sup>2</sup> All comments cited in this document were filed in Docket No. RM18-1-000 on October 23, 2017, unless otherwise indicated.

<sup>3</sup> Initial Comments of PJM Interconnection, L.L.C. on the United States Department of Energy Proposed Rule (“Initial Comments”).

<sup>4</sup> Comments of the ISO/RTO Council.

2. Recognition that the subjects of resilience and fuel security are important, require better definition and broader scope than suggested in the DOE NOPR, and warrant further development and potential Commission action.

Rather than repeating its concerns with the DOE NOPR's proposed rule changes, PJM will use these reply comments to propose a path forward for the Commission, recognizing these two important recurring themes.

In particular, PJM proposes that the Commission, while declining to adopt the remedy set forth in the DOE NOPR, should instead:

1. expedite PJM's consideration with its stakeholders of market reforms including ongoing initiatives such as price formation;
2. require all jurisdictional regional transmission organizations ("RTOs") and independent system operators ("ISOs") to report back on their assessment of any needed price formation reforms<sup>5</sup> or, alternatively, file tariff proposals, in a defined, near-term timeframe which should not, absent good cause shown, extend beyond 180 days; and
3. open a new docket for the purpose of defining resilience and establishing high-level national parameters for consideration of resilience issues within specific regions.

## COMMENTS

### **A. The Commission Should Ensure Timely Submission for Commission Consideration of Any Needed Market Reforms in PJM Related to Price Formation.**

The comments (including those from state utility commissions such as Illinois<sup>6</sup> and New Jersey<sup>7</sup>) reveal a widespread interest in the Commission acting sooner, rather than later, on the question of market rule changes, with many industry commenters pressing for "urgent," "prompt," or "expedited" consideration of the need for, and

---

<sup>5</sup> These proposals fit well with the Commission's own initiation of price formation reforms but will recognize that, for this next series of price formation reforms, a regional rather than a national approach may be in order given the differences in the fuel security, diversity, and generation mix in each region.

development of, market rule changes such as price formation, that better reflect (and price) resource characteristics and attributes needed by the bulk electric system.<sup>8</sup>

Accordingly, moving past the specific proposal in the DOE NOPR, the record in this proceeding, supplemented by the DOE Staff Report<sup>9</sup> and the Commission’s prior work on price formation,<sup>10</sup> highlight the need for careful consideration of existing market

---

<sup>6</sup> Comments of the Illinois Commerce Commission (“ICC Comments”).

<sup>7</sup> Comments of the New Jersey Board of Public Utilities (“NJBPUC Comments”).

<sup>8</sup> See, e.g., NJBPUC Comments at 3 (expressing an “urgent need for action”); ICC Comments at 4 (“The ICC urges the Commission to re-focus and re-double . . . price formation initiatives.”); Comments of the National Rural Electric Cooperative Association at 3-4 (recommending that the Commission should “promptly initiate” further proceedings on identifying and pricing reliability and resilience services); Comments of the Electricity Consumers Resource Council (ELCON), et al. at 6 (“U.S. Manufacturers urge the Commission” to continue its price formation and reliability related initiatives to improve functioning of organized markets); Initial Comments of the Interstate Natural Gas Association of America at 1-2 (proposing that FERC should direct RTO/ISOs to report to the Commission “within 90 days” on how they value reliability and resilience); Comments of the Edison Electric Institute at 5 (recommending that “in the near term,” the Commission should direct regional market operators to identify any energy price formation concerns they have, and the Commission should “act expeditiously” on any resulting filings); Comments of the PJM Power Providers Group at 9 (recommending that the Commission should “commence proceedings” on energy price formation structures and resilience concerns); Rulemaking Comments of the Nuclear Energy Institute at 2 (urging that the debate about best solution must not detract from the “need to quickly put rules in place”); Initial Comments of Talen Energy Corporation at 2 (recommending that the Commission should direct ISO/RTOs to develop compliance filings “on an expedited but reasonable timeframe”); Initial Comments of the Electric Power Supply Association at 2 (recommending that the Commission should “expeditiously act” to protect markets from subsidies and “move forward on genuine improvements to price formation”); Comments of NRG Energy, Inc. at 2 (“[M]arket reforms are urgently needed.”); Comments of the FirstEnergy Service Company et al. in Support of the Grid Reliability and Resilience Pricing Notice of Proposed Rulemaking at 4 (stating that “time is of the essence”); Comments of Exelon Corporation at 5 (recommending that the Commission should “act immediately” on price formation).

<sup>9</sup> *Staff Report to the Secretary on Electricity Markets and Reliability*, U.S. Department of Energy (Aug. 17, 2017) (“DOE Staff Report”).

<sup>10</sup> See, e.g., *Fast-Start Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Notice of Proposed Rulemaking, IV FERC Stats. & Regs., Proposed Regs. ¶ 32,720 (2016) (“Fast Start Pricing NOPR”); *Offer Caps in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 831, III FERC Stats. & Regs., Regs. Preambles ¶ 31,387 (2016); *Settlement Intervals and Shortage Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 825, III FERC Stats. & Regs., Regs. Preambles ¶ 31,384 (2016); Commission Staff, *Staff Analysis of Operator-Initiated Commitments in RTO and ISO Markets*, Federal Energy Regulatory Commission (Dec. 4 2014), <https://www.ferc.gov/legal/staff-reports/2014/AD14-14-operator-actions.pdf>; *Price Formation in Energy and Ancillary Services*

rules to evaluate what, if any, region-specific market rule changes may be required to address reliability, resilience, and fuel security concerns arising from rapid changes in the resource mix. As PJM explained in its Initial Comments, PJM has identified such concerns in its own market. To be clear, the specific cost of service remedy proposed in the DOE NOPR *is not*, in PJM’s view, an appropriate response to those concerns but, consistent with PJM’s prior statements, those concerns *do require a response*.

To that end, PJM has been reviewing market reforms internally and, as indicated in its published paper and briefings for our stakeholders<sup>11</sup> is working on a set of solutions—broadly termed “energy price formation”—to ensure locational marginal prices reflect more accurately the real cost incurred to meet system needs and more comprehensively compensate generation resources (including flexible generation) for the attributes they provide to meet system needs in a given interval. PJM’s initiative, expressly noted in the DOE Staff Report<sup>12</sup> on which the DOE NOPR relies, promises a viable competitive market-based means in the PJM region to move forward on the resource mix, resilience, and fuel security concerns underlying the DOE NOPR, without the Commission’s adopting the DOE NOPR’s investment-disruptive cost of service remedy. Admittedly, PJM’s contemplated price formation reforms will not “save” all uneconomic or obsolete resources; but they do promise to more appropriately compensate

---

*Markets Operated by Regional Transmission Organizations and Independent System Operators*, Notice, Docket No. AD14-14-000 (June 19, 2014).

<sup>11</sup> See *Energy Price Formation and Valuing Flexibility*, PJM Interconnection, L.L.C. (June 15, 2017), <http://www.pjm.com/~media/library/reports-notice/special-reports/20170615-energy-market-price-formation.ashx>. This working paper was discussed at the August 24, 2017 Markets & Reliability Committee and will be the subject of additional stakeholder meetings going forward.

<sup>12</sup> DOE Staff Report at 126.

otherwise economic and viable resources of all types whose contributions today to resilience and fuel security may not be sufficiently recognized in the market.

PJM notes in this regard that other regions already have experienced benefits from more flexible pricing methods, whereas PJM has yet to make similar enhancements. For example, within the context of fast-start pricing, the Commission has proposed requiring RTOs/ISOs “to relax to zero[, in the pricing run,] fast-start resources’ economic minimum operating limit, thereby treating th[o]se resources as fully dispatchable for the purpose of calculating prices.”<sup>13</sup> Full relaxation would “permit an inflexible . . . fast-start resource to be treated as dispatchable” in the pricing run, and thus eligible “to set the market clearing price if it is . . . the marginal unit needed to serve load.”<sup>14</sup> In addition, the other Northeast RTOs/ISOs: (1) allow costs other than incremental energy to set the clearing price; and (2) in the case of MISO and NYISO, allow off-line fast-start resources to set the clearing price under certain conditions. Similar benefits could be realized if adapted within the PJM region (which has comparatively few fast-start resources with a ten minute start-up time)<sup>15</sup> for a broader resource set.

To be clear, PJM’s resource mix is different than other regions. In particular, natural gas resources in PJM are not limited to fast-start combustion turbines, but rather are represented by significant quantities of larger, combined cycle units. These resources are competing directly with other resource types, and it therefore does not serve the regional needs to limit the price-setting contribution discussed here to only the fast-start

---

<sup>13</sup> Fast Start Pricing NOPR at P 54.

<sup>14</sup> *Id.*

<sup>15</sup> *PJM Interconnection, L.L.C.*, Comments to Notice of Proposed Rulemaking, Docket No. RM17-3-000, at 4-5 (Feb. 28, 2017).

class of units. Indeed, after completing its ongoing review of locational marginal price formation, PJM may find that PJM's existing energy market design is not just and reasonable in this respect.

As an appropriate path forward, the Commission should, as part of its final order in this docket, ask each RTO/ISO to evaluate *whether* there are market reforms, including price formation reforms, that are appropriate for their region and that would advance the efficient operation of their markets and/or the articulated objectives of resilience and fuel security.<sup>16</sup> Each region would then be afforded time to file with the Commission either: (1) appropriate tariff changes for Commission consideration; or (2) a report explaining why no such changes are needed for its region. Any region proposing specific changes would also be required to address how the proposal addresses seams issues that may arise as a result of implementation of the proposal in that region. PJM suggests a clearly defined, near-term deadline for such tariff filings or reports, such as 180 days from a Commission order adopting this process, allowing for a reasonable amount of time for consultation with its stakeholders.<sup>17</sup>

In sum, PJM suggests the Commission:

- Expedite PJM's consideration with its stakeholders of market reforms including ongoing initiatives such as price formation by establishing a fixed deadline for submission of any proposals given the exigencies outlined by the DOE in its proposed NOPR as applied to the PJM region; and

---

<sup>16</sup> Other RTOs have argued that initiatives PJM is advancing for its region are not appropriate for their region. Lest there be any doubt, PJM is *not* proposing the Commission find PJM's concepts appropriate for other regions.

<sup>17</sup> Although on its own terms the DOE NOPR is broader than just the PJM region, should the Commission be reluctant to implement this modest reporting/filing requirement generically, PJM does believe it is an appropriate outcome of this docket for the PJM region given the specific observations of the DOE both in the DOE Staff Report and DOE NOPR.

- Require RTOs to report back or file proposals in a prescribed time frame which, absent good cause, should be within 180 days from the Commission’s order in this docket.

**B. The Commission Should Provide Policy Guidance on Resilience.**

There was broad recognition in the initial comments that resilience and fuel security are important subjects for further discussion, review and potential local, state, regional, and national action. Among many others, the national reliability organization, the national association of state utility regulatory commissions, and an unprecedented coalition of energy industry associations all urge a thorough consideration of resilience.<sup>18</sup>

Many commenters also noted that the terms “resilience” and “fuel security” often are used (particularly in the DOE NOPR) without a rigorous definition, or a clear enunciation of how those terms differ from the concept of reliability.<sup>19</sup> PJM has defined these terms for purposes of its technical and stakeholder process efforts to address resilience, as noted in PJM’s Initial Comments.<sup>20</sup> But this clearly is an area that warrants authoritative Commission guidance on a more generic basis as well.

---

<sup>18</sup> See, e.g., Comments of the North American Electric Reliability Corporation in Response to Notice of Proposed Rulemaking at 3-5 (“NERC Comments”) (stating the importance of maintaining resilience/reliability with changing resource mix); Comments of the National Association of Regulatory Utility Commissioners at 8 (“NARUC would welcome a thorough vetting of ‘resiliency,’ and a dialogue among its members, NERC, the ISO/RTOs, DOE, and FERC as to what kinds of resiliency, and at what cost, should be pursued.”); Joint Industry Comments Opposing the DOE Proposal at 8-9 (“Joint Industry Comments”) (“A proper evaluation of grid resilience should begin with methodical and systematic evaluation of these threats on a region-specific basis . . .”).

<sup>19</sup> See Comments of Calpine Corporation at 20-21; Comments of Duke Energy Corporation at 6-7; Comments of LS Power Development, LLC on Notice of Proposed Rulemaking at 8-9; Comments of the Southwest Power Pool Market Monitoring Unit on Notice of Proposed Rule by the Secretary of Energy at 2-4 (Oct. 20, 2017); Comments of Potomac Economics Ltd. at 4-5 (Oct. 20, 2017).

<sup>20</sup> Initial Comments at 18-20.

Importantly, resilience and fuel security concerns cannot be limited to RTOs and ISOs, let alone RTOs and ISOs with capacity markets.<sup>21</sup> Nor, as many commenters make clear,<sup>22</sup> are resilience concerns properly limited to generation.

High-level Commission direction on national parameters for use in regional implementation would avoid the alternative of having national policy set on an ad hoc basis when challenges are raised in rate cases to the need for particular investments to enhance resilience. For this reason, the Commission should open a new docket to define resilience and establish high-level national parameters to guide regional consideration of resilience issues.

## CONCLUSION

For the foregoing reasons, PJM respectfully requests that the Commission decline to adopt the DOE NOPR (as proposed) and, in its place: (1) expedite PJM's consideration with its stakeholders of market reforms including ongoing initiatives such as price formation reforms; (2) require all jurisdictional RTOs/ISOs to report back on their assessment of any needed price formation reforms or, alternatively, file tariff proposals, in a defined, near-term timeframe which should not, absent good cause shown, extend beyond 180 days; and (3) open a new docket to define resilience and establish high-level national parameters to guide regional consideration of resilience issues.

---

<sup>21</sup> In fact, given the demonstrated benefits of their markets and independent regional planning processes, RTOs and ISOs certainly should not be singled out for action while the rest of the country is exempt from action.

<sup>22</sup> See, e.g., Comments of American Electric Power Company at 4-5; Comments of the MISO Transmission Owners at 10-12; Joint Industry Comments at 3; NERC Comments at 9-11.



Respectfully submitted,

/s/Jennifer Tribulski

Craig Glazer  
Vice President – Federal Government  
Policy  
PJM Interconnection, L.L.C.  
1200 G Street, NW, Suite 600  
Washington, DC 20005  
(202) 423-4743 (phone)  
(202) 393-7741(fax)  
Craig.Glazer@pjm.com

Jennifer Tribulski  
Associate General Counsel  
PJM Interconnection, L.L.C.  
2750 Monroe Boulevard  
Audubon, PA 19403  
(610) 666-4363 (phone)  
Jennifer.Tribulski@pjm.com

***Counsel for PJM Interconnection, L.L.C***

November 7, 2017

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Audubon, Pennsylvania this 7<sup>th</sup> day of November, 2017.

*/s/*

\_\_\_\_\_  
Jennifer Tribulski  
Attorney for  
PJM Interconnection, L.L.C.