

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

**PJM Interconnection, L.L.C.**

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**Docket No. ER19-511-000**

**MOTION FOR LEAVE TO ANSWER  
AND LIMITED ANSWER OF PJM INTERCONNECTION, L.L.C.**

PJM Interconnection, L.L.C. (“PJM”), pursuant to Rule 213 of the Federal Energy Regulatory Commission (“Commission”),<sup>1</sup> submits this Motion for Leave to Answer (“Motion”) and limited Answer (“Answer”)<sup>2</sup> to respond to certain comments and protests filed by the Natural Resources Defense Council (“NRDC”), Advanced Energy Management Alliance (“AEMA”), Pennsylvania Public Utility Commission (“PAPUC”), and FirstEnergy Utility Companies (“FE Utilities”).<sup>3</sup> As set forth below and in PJM’s initial transmittal letter in this docket,<sup>4</sup> PJM’s Peak Shaving Adjustment proposal provides a just and reasonable method to value certain summer-only demand response resources that do not already participate in PJM’s capacity market or are already peak shaving. The proposed changes should be accepted, and the protests rejected, by the Commission for the reasons explained herein.

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<sup>1</sup> 18 C.F.R. § 385.213.

<sup>2</sup> To promote administrative efficiency, PJM only address certain points not already discussed in the original transmittal letter in this Answer. The lack of a response to every argument in the various protests does not indicate PJM’s agreement with such assertions.

<sup>3</sup> *Protest of Natural Resources Defense Council*, Docket No. ER19-511-000 (filed December 28, 2018) (“NRDC Protest”), *Limited Protest of Advanced Energy Management Alliance*, Docket No. ER19-511-000 (filed December 28, 2018) (“AEMA Protest”), *Comments of the Pennsylvania Public Utility Commission*, Docket No. ER19-511-000 (filed January 3, 2019) (“PAPUC Comments”), *Protest of the FirstEnergy Utility Companies*, Docket No. ER19-511-000 (filed December 28, 2018) (“FE Utilities Protest”).

<sup>4</sup> Peak Shaving Adjustment Proposal of PJM Interconnection, L.L.C., Docket No. ER19-511-000 (December 7, 2018).

## I. MOTION FOR LEAVE TO ANSWER

The Commission's rules provide that a party may answer protests where the decisional authority permits the answer for good cause shown. The Commission has accepted responses to protests when doing so will ensure a more accurate and complete record or will assist the Commission in its deliberative process by clarifying the issues.<sup>5</sup> All of these criteria are met. Therefore, PJM respectfully requests that the Commission grant its Motion because the Answer will help clarify the record and contribute to an understanding of the issues.

## II. ANSWER

### A. *Peak Shaving Adjustment is Designed to Better Value Resources that Do Not Participate in PJM's Capacity Market as Demand Resource or Price Responsive Demand or PJM's Energy Market as Economic Load Response Participants.*

While AMEA and PAPUC are generally supportive of PJM's Peak Shaving Adjustment proposal, both oppose the condition that the same end-use customer cannot participate in both Peak Shaving Adjustment as demand side reduction at the same time as a supply side resource.<sup>6</sup> They argue that an end-use customer may have summer peak-reduction capability in addition to annual demand reduction capability that could otherwise be stranded if dual participation is not allowed.

Under the proposed Peak Shaving Adjustment program, demand response resources can elect to participate as load reduction or as a supply side resource. Many demand response resources already participate in the PJM's capacity, energy and Ancillary Service markets. Plus, PJM's rules provide flexibility for Demand Resources with excess seasonal capabilities to

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<sup>5</sup> The Commission regularly allows answers in such cases. See, e.g., *PJM Interconnection, L.L.C.*, 139 FERC ¶ 61,165, at P 24 (2012) (accepting answers to a protest because "they have provided information that assisted [the Commission] in [its] decision-making process"); *PJM Interconnection, L.L.C.*, 104 FERC ¶ 61,031, at P 10 (2003) (accepting answer because "it will not delay the proceeding, will assist the Commission in understanding the issues raised, and will [e]nsure a complete record upon which the Commission may act").

<sup>6</sup> See AEMA Protest at p. 7-12, PAPUC Comment at p. 6-8.

aggregate with other seasonal resources. Thus, most demand response resources are already properly valued through their existing ability to participate in PJM's markets and need not also be included in Peak Shaving Adjustment. Peak Shaving Adjustment is designed to improve the accuracy of PJM's long term load forecast by accounting for those resources that are already peak shaving but not currently accounted for on the demand side and not participating as a supply side resource. It was not intended to provide additional compensation to resources that are already participating in PJM's markets.

Allowing demand response resources to participate in both Peak Shaving Adjustment and as an Economic Load Response Participant is contrary to the general principle that, to qualify for wholesale market compensation, load reductions must be in response to PJM's wholesale energy market price and must follow PJM's dispatch instructions.<sup>7</sup> In other words, load reductions for an Economic Load Response Participant must differ from its normal or expected consumption.<sup>8</sup> Since resources that participate in Peak Shaving Adjustment already are expected to curtail load when the relevant temperature heat index threshold ("THI") is triggered, the load reductions that occur are, by definition, part of the resource's normal operations.

Further, because Peak Shaving Adjustment performance is aggregated for all end-use customer locations located within a Zone, allowing individual end-use customer locations with any additional MW capability to participate in the energy market is unworkable. This is because an Economic Load Response Participant is based on individual resource registrations, which could be only one end-use customer location. Thus, while individual end-use customer locations

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<sup>7</sup> See generally *Demand Response Compensation in Organized Wholesale Energy Markets*, 134 FERC ¶ 61,187 (2011) ("Order No. 745"), *order on reh'g*, 137 FERC ¶ 61,215 (2011) ("Order No. 745-A").

<sup>8</sup> The Commission's regulations define demand response as "a reduction in the consumption of electric energy by customers *from their expected consumption* in response to an increase in the price of electric energy or to incentive payments designed to induce lower consumption of electric energy. See 18 C.F.R. § 35.28(b)(4) (emphasis added).

may have additional MW capabilities, load reductions from all locations within a participating Zone are aggregated for Peak Shaving Adjustment. Consequently, where an end use customer location curtails more than expected, such curtailment would be aggregated with other end use customer locations that may not perform as anticipated in the same Zone for purposes of Peak Shaving Adjustment. This makes it challenging, if not impossible, to ensure MWs from an Economic Load Response Participant registration are not already included in the adjusted load forecast for the Zone. In short, given the zonal nature of the forecast adjustments, one cannot simply combine those reductions with end use customer locations participating as an Economic Load Response Participant given the zonal focus for the forecast reductions versus individual end-use customer reductions.

Likewise, Demand Resource commitments and compliance is done for an aggregation of customers across different aggregation areas. For compliance, PJM adds up all the load reductions from the associated customers to ensure the overall resource commitment was met. Like under Peak Shaving Adjustment, individual customers do not have separate Demand Resource commitments. It is not clear how the Demand Response and Peak Shaving Adjustment aggregation frameworks will work if a customer's load reduction, which is measured two completely different ways, is split between an aggregate Demand Response commitment and an aggregate Peak Shaving Adjustment nomination.

Allowing resources to simultaneously participate as both supply and demand products also present measurement and verification challenges that are not easily reconcilable. The concern for potential double counting is real. Attempting to split an individual end-use customer's load reduction between a Peak Shaving Adjustment (demand side) and Demand Resource (supply side) could lead to double counting when there is an overlap of capability

between the two programs. This is because compliance for Peak Shaving Adjustment is determined based on real-time energy load reductions whereas compliance for a Demand Resource is based on either Firm Service Level or Guaranteed Load Drop, which is based on the end-use customer's Peak Load Contribution and Winter Peak Load. Given these different measurement metrics, it is unclear how load reduction capabilities could be separated between the different programs to ensure that load reduction capability is not double counted.<sup>9</sup>

The issue of how to handle non-compliance would also need to be addressed to ensure there is no double counting. Compliance is determined completely differently between supply and demand side resources. For instance, Demand Resources are reviewed during Performance Assessment Intervals on a five-minute basis and load reductions are aggregated for the Curtailment Service Provider's portfolio in a defined area while Peak Shaving Adjustments are determined at an hourly level for all participants in a Zone. This especially would be problematic when an end-use customer location is expected to simultaneously curtail a certain number of MWs as a Capacity Performance Demand Resource and another number of MWs in the Peak Shaving Adjustment program. If such end-use customer location curtails less than the total committed MWs as a Demand Resource and the expected MWs to be curtailed under peak shaving, it would be difficult to determine which commitment was fulfilled first and equally challenging to allocate an individual end-use customer's load reduction between the two

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<sup>9</sup> Further, if PJM reduces the load forecast under Peak Shaving Adjustment, then PJM expects that load will already be reduced during hot weather conditions. If PJM also relies on the same resource as a Demand Resource, then PJM would expect it to provide load reductions during hot weather conditions. However, there are no additional load reductions available to mitigate the hot weather conditions when a demand response resource has already been accounted through Peak Shaving Adjustment. This is further exacerbated because this demand response resource displaced another supply resource that would have been available to mitigate the hot weather conditions.

different mechanisms which are calculated completely differently.<sup>10</sup> This measurement challenge also would exist under AEMA's example of separate reductions given the different compliance measurements for supply-side resources vs. demand side resources.

AEMA posits a few possible paths, but does not provide any concrete solutions, that could be explored to address the issue of double counting and how MWs would be allocated among different programs. In fact, none of the protesters specifically laid out how to avoid double counting issues if entities were to participate on both the supply and demand side. The lack of a concrete solution to these challenges demonstrate the complexities involved in ensuring that no MWs are double counted and are appropriately allocated to different programs.<sup>11</sup>

While it may be possible to eventually address these challenges, additional consideration and design components would need to be developed to ensure that resources are not double counted and MWs are appropriately allocated. Although eliminating the protested language may have facial appeal, the absence of any specific proposal to avoid double counting leaves the Commission, should it agree with the protests, to simply reject the filing in its entirety and delay the benefits for certain seasonal resources that are already peak shaving. A better course would be to allow PJM and its stakeholders to address this issue after experience is gained rather than simply condemning all parties to the status quo. Like many other PJM market rules, subsequent enhancements with additional stakeholder input could eventually be made to allow for possible

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<sup>10</sup> For these reasons, the proposed dual participation condition is consistent with PJM's existing Price Responsive Demand ("PRD") rules for many of the same reasons. Specifically, PJM's rules do not allow an end-use customer to participate both as PRD on the demand side and Demand Resource on the supply side because of the potential for double counting the load reduction impacts and the complexities of splitting up individual retail customers between different programs with different rules.

<sup>11</sup> Indeed, PJM and the stakeholders considered this issue. This proposal was the result of a year-long stakeholder process where these issues were discussed at length (including remedies to the double counting issue) and in which demand response resources and customer groups participated extensively. Ultimately, solutions to allow dual participation did not sufficiently allay concerns on potential double counting as part of this stakeholder endorsed package.

dual participation in the future. In the interim, the Peak Shaving Adjustment proposal as filed represents a just and reasonable method to value certain summer-only demand response resources that do not currently participate in PJM's markets or are already peak shaving beginning with the upcoming Base Residual Auction. As a just and reasonable improvement over the status quo, this filing satisfies the Commission's Section 205 standard of review.

***B. The Peak Shaving Adjustment Proposal Does Not Violate or Relax the 1-in-10 LOLE Standard, Nor Does it Undervalue Summer-Only Resources.***

Contrary to NRDC's assertion that PJM now agrees that the substitution of summer-only capacity for annual capacity has no negative reliability impacts,<sup>12</sup> the proposed load forecast change does not support the position that summer-only resources can displace annual resources with no loss of reliability. Rather, the modified load forecast, which reflects the Peak Shaving Adjustment curtailment behavior, is incorporated in the Installed Reserve Margin (IRM) Study. The IRM is then re-computed to ensure that PJM continues to satisfy the 1-in-10 LOLE standard. Therefore, Peak Shaving Adjustment does not require the relaxation or violation of the 1-in-10 LOLE standard.

Further, contrary to NRDCs claims,<sup>13</sup> the Peak Shaving Adjustment proposal appropriately values summer-only resources. Participating resources would be compensated by the participating Load Serving Entity, which in turn is able to recoup curtailment costs via savings through a reduced load forecast. Peak Shaving Adjustment is not a Capacity Resource intended to be dispatched by PJM when needed for reliability. Rather, it is a demand side activity that is implemented when it has the largest impact on the peak demand forecast. Thus, the reduction times are not arbitrary. Resources that register to participate in the Peak Shaving

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<sup>12</sup> NRDC Protest at p. 8.

<sup>13</sup> NRDC Protest at pp. 10-13.

Adjustment program curtail when the relevant THI threshold is triggered and are modeled in PJM's load forecast accordingly.

***C. NRDC's Reference to PJM's LOLE Studies Are Misplaced.***

NRDC also claims that PJM's own LOLE studies show that nearly all the reliability value of the marginal capacity resource is during the summer weeks.<sup>14</sup> As previously explained,<sup>15</sup> the studies were not designed to address seasonal issues and thus did not incorporate the need for PJM operations to preserve the winter weekly reserve target. In addition, the results consider only annual resources with annual availability. Finally, the analysis assumed a maintenance schedule that takes advantage of the flexibility provided by an annual horizon. As previously explained, such flexibility includes generally scheduling maintenance activities in the non-summer period, so as to minimize the amount of reserves needed in the summer.<sup>16</sup> Thus, issues regarding seasonal maintenance scheduling are not reflected in the studies. In other words, the study referenced by NRDC<sup>17</sup> did not and was not developed to include seasonal considerations. As a result, the LOLE study cited by NRDC does not support the position that small increases in summer capacity would allow for large decreases in need for winter capacity.

***D. Peak Shaving Adjustment Will Not Cause Unjust and Unreasonable Capacity Market Prices.***

FE Utilities argue that the proposed Peak Shaving Adjustment program will further exacerbate the accelerated premature retirements of existing baseload generators by further

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<sup>14</sup> NRDC Complaint at 3.

<sup>15</sup> See Answer of PJM Interconnection, LLC, at 21-37, Docket Nos. EL17-32-000 and EL17-36-000 (filed January 25, 2017) ("Initial Answer").

<sup>16</sup> PJM Interconnection, LLC, Answer, Docket Nos. EL17-32-000 and EL17-36-000 at 3 (December 19, 2017).

<sup>17</sup> Based on NRDC's reference to the original AMEA and ODEC complaints in Docket Nos. EL17-32-000 and EL17-36-000, PJM assumes the study referred by NRDC is the 2015 PJM Reserve Requirement Study, which was made available on October 8, 2015.



suppressing capacity market prices.<sup>18</sup> While it is true that the result of Peak Shaving Adjustment is likely a leftward shift in the Variable Resource Requirement (“VRR”) curve, such shift appropriately reflects resources that are already curtailing but may not currently be adequately recognized. Thus, the inclusion of such resources in Peak Shaving Adjustment ultimately results in a more accurate load forecast that reflects the actual load requirements within PJM. The use of this more accurate load forecast in the VRR curve only works to create more just and reasonable market outcomes.

There is no reason to consolidate the present proposal with the pending proceedings pertaining to the VRR curve or capacity reform<sup>19</sup> as requested by FE Utilities because the Peak Shaving Adjustment proposal is limited to better valuing certain resources. The mere fact that valuing such resources may result in less load requirements does not necessitate the consolidation of other wholly unrelated proceedings. PJM market rule changes can impact other pending rules, but this does not mean the Commission should consolidate all pending proceedings each time new rules are proposed. Such an outcome would paralyze PJM’s ability to enhance market rules as well as the Commission’s ability to timely accept such changes.

Finally, while the transmittal letter sufficiently describes the Peak Shaving Adjustment proposal, PJM addresses FE Utilities’ concern that PJM did not explain the magnitude of the shift to the VRR curve. To be clear, Peak Shaving Adjustment will not impact the shape of the VRR curve. Instead, the only affect is a potential shift of the curve to the left. Although PJM cannot be certain of the actual amount of resources that seek to participate under the proposed Peak Shaving Adjustment program, it is estimated that approximately 1,800 MWs of resources

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<sup>18</sup> FE Utilities Protest at p. 2.

<sup>19</sup> See PJM Interconnection, L.L.C., Docket No. ER19-105-000 and PJM Interconnection, L.L.C., Docket No. EL18-178-000.

are currently eligible to participate under peak shaving.<sup>20</sup> While this means the VRR curve has the potential to shift up to 1,800 MWs, the actual shift will depend on the THI triggers specified by each participating program.

### III. CONCLUSION

Based on the foregoing, PJM requests that the Commission grant PJM's Motion and take this Answer into consideration when reviewing the protests filed in this proceeding. PJM requests that the Commission accept PJM's filing dated December 7, 2018 as filed with an effective date of February 5, 2019.

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Respectfully submitted,



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Dated January 16, 2019


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<sup>20</sup> This estimate is based on the 2021/2022 Reliability Pricing Model auction results and known existing state curtailment programs. The actual number of MWs that participate in Peak Shaving Adjustment may be more or less because new resources may become available and not all resources may choose to participate in this program.

**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, PA, this 16th day of January, 2019.



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