

155 FERC ¶ 61,004
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;
Cheryl A. LaFleur, Tony Clark,
and Colette D. Honorable.

PJM Interconnection, L.L.C.

Docket No. ER16-873-000

ORDER ON PROPOSED TARIFF REVISIONS

(Issued April 1, 2016)

1. On February 2, 2016, pursuant to section 205 of the Federal Power Act (FPA),¹ PJM Interconnection, L.L.C. (PJM) filed proposed revisions to Attachment K-Appendix of its Open Access Transmission Tariff (OATT) and to the identical provisions of Schedule 1 of its Amended and Restated Operating Agreement (Operating Agreement)² to correct language describing how PJM measures Demand Resource³ compliance during non-summer months.⁴ PJM states that these corrections are required because PJM inadvertently neglected to include them in its December 12, 2014 filing to implement

¹ 16 U.S.C. § 824d (2012).

² PJM Interconnection, L.L.C., Intra-PJM Tariffs, [OATT ATT K APPX Sec 3.3A, OATT Attachment K Appendix Sec 3.3A Economic Load Response, 9.0.1](#); and [OA Schedule 1 Sec 3.3A, OA Schedule 1 Sec 3.3A - Economic Load Response Participants, 9.0.1](#).

³ Demand Resources are resources with a demonstrated capability to provide a reduction in demand or otherwise control load that offer and clear load reduction capability in a Base Residual Auction or Incremental Auction or that are committed through a Fixed Resource Requirement Capacity Plan. Reliability Assurance Agreement Among Load Serving Entities (RAA), § 1.13. Demand Resources include Emergency and Pre-Emergency Load Response Participants.

⁴ “Non-summer months” are October through May of a Delivery Year. Transmittal at 1, n.3.

PJM's Capacity Performance proposal.⁵ As discussed below, we accept PJM's proposed revisions to become effective April 4, 2016, as requested.

I. Background

2. Demand response programs in PJM can be grouped into Economic Load Response, Emergency Load Response and Pre-Emergency Load Response.⁶ Emergency and Pre-Emergency Load Response Participants offer load reductions from Demand Resources as part of their commitment in PJM's capacity market. Demand Resources are distinct from Economic Load Response Participants which offer load reductions only in PJM's energy markets.⁷ PJM explains that Emergency and Pre-Emergency Load Response Participants are overwhelmingly Curtailment Service Providers.

3. PJM states that, among the significant reforms proposed to the Reliability Pricing Model in the Capacity Performance Filing, PJM proposed changes to the manner in which it measures compliance for Demand Resources providing load reductions in non-summer months.⁸ Specifically, PJM proposed to measure the quantity of PJM-dispatched non-summer load reduction provided by Demand Resources by using the Customer Baseline Load methodology in the same manner used for measuring load reductions from Economic Load Response Participants in the energy market, in accordance with sections 3.3A.2 or 3.3A.2.01 of Schedule 1 of the Operating Agreement.⁹

4. In the Capacity Performance Filing, PJM explained that it is reasonable to use the Customer Baseline Load methodology for measurement of load reductions that occur in non-summer months, as it provides a representation of what the Demand Resource's energy consumption would have been in a relevant hour had PJM not dispatched it under

⁵ PJM, Docket No. ER15-623-000 (December 12, 2014) (Capacity Performance Filing).

⁶ Monitoring Analytics, LLC: *State of the Market Report for PJM*, at 233, (Mar. 10, 2016): http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2015/2015-som-pjm-volume2-sec6.pdf.

⁷ PJM February 2, 2016 Filing at n.14.

⁸ PJM defines non-summer months as October through May of a Delivery Year.

⁹ More specifically, PJM will measure load management achieved by an end-use customer as measured by comparing actual metered load to an end-use customer's default Customer Baseline Load or alternative Customer Baseline Load.

emergency conditions during that hour. PJM stated that the Customer Baseline Load method should provide a more timely and realistic calculation of what the load would have been absent the reduction on the actual day the reduction took place.¹⁰

5. In an order issued on June 9, 2015, the Commission conditionally accepted PJM's Capacity Performance Filing finding the Customer Baseline Load methodology an appropriate measure of Demand Resource's performance during non-summer months.¹¹

6. Section 3.3A.2 of Schedule 1 of the Operating Agreement specifies the *default* Customer Baseline Load methodology that an Economic Load Response Participant must use to measure its load reductions from end-use customers, including both Variable Loads and Non-Variable Loads. Non-Variable Loads are defined as loads "for which the Customer Baseline Load calculation and adjustment methods...result in a relative root mean square hourly error...of twenty percent or less compared to the actual hourly loads based on the hourly load data provided in the registration process and using statistical methods prescribed in the PJM Manuals."¹² PJM further specifies that "all other loads shall be Variable Loads."¹³ PJM states that the relative root mean square hourly error is a metric that predicts the expected accuracy of a forecast methodology, such as a Customer Baseline Load, for a given resource by comparing the forecast of an historic period with the actual historic measurements observed during that same period.¹⁴ Under PJM's current rules, a relative root mean square hourly error calculation is submitted by an Economic Load Response Participant when registering end-use customers.¹⁵

7. Section 3.3A.2.01 of Schedule 1 of the Operating Agreement specifies the procedures by which an Economic Load Response Participant may utilize an *alternative* Customer Baseline Load methodology to determine its expected loads. PJM states that

¹⁰ Capacity Performance Filing at 36.

¹¹ *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208, at P 180 (June 9 Order), *order on reh'g*, 152 FERC ¶ 61,064 (2015).

¹² PJM February 2, 2016 Filing at 3-4 (citing Operating Agreement, Schedule 1, § 1.5A.6).

¹³ *Id.*

¹⁴ *Id.* at 4.

¹⁵ Each market participant, whether an Economic Load Response Participant or Emergency and Pre-Emergency Load Response Participant, registers with PJM the end-use customers that will reduce load. *See id.* at 15.

Economic Load Response Participants may propose an alternative Customer Baseline Load methodology if they believe it will more accurately measure their load reductions compared to the default Customer Baseline Load methodology, provided that the alternative Customer Baseline Load will result in a relative root mean square hourly error calculation of 20 percent or less. Under section 3.3A.2.01, Economic Load Response Participants that utilize the alternative Customer Baseline Load methodology must also calculate a relative root mean square hourly error to prove that their proposed alternative Customer Baseline Load is superior to the default Customer Baseline Load.¹⁶

II. PJM's Filing

8. PJM proposes revisions to the OATT, Attachment K- Appendix and the identical provisions of the Operating Agreement to correct language describing how PJM measures Demand Resource compliance during non-summer months. PJM states that these revisions are required because: (1) it was never PJM's intent when it submitted the Capacity Performance Filing for Demand Resources to be required to complete a relative root mean square hourly error calculation to utilize the default Customer Baseline Load methodology when measuring compliance during non-summer months and; (2) it inadvertently neglected to include them in its Capacity Performance Filing.¹⁷ PJM argues that the Commission accepted PJM's proposal to measure non-summer load reduction provided by Demand Resources using the Customer Baseline Load methodology and that PJM is not requesting the Commission alter its holding on this issue.

9. PJM states that, since sections 3.3A.2 or 3.3A.2.01 currently require an Economic Load Response Participant to calculate a relative root mean square hourly error, and because these provisions are incorporated by reference, as approved in the June 9 Order, to measure non-summer load reductions provided by Demand Resources, it follows that Emergency and Pre-Emergency Load Response Participants must also calculate a relative root mean square hourly error during the registration process for each end-use customer. PJM states that this outcome was never its intent when it submitted the Capacity Performance Filing. PJM only intended to require a relative root mean square hourly

¹⁶ *Id.*

¹⁷ *Id.* at 1-2.

error calculation if a Curtailment Service Provider¹⁸ of a Load Management Resource elected to submit an *alternative* Customer Baseline Load.¹⁹

10. PJM proposes several revisions to implement this change. First, PJM proposes to revise the provision on the default Customer Baseline Load methodology to clarify that Emergency and Pre-Emergency Load Response Participants would use the default Customer Baseline Load methodology to measure their load reductions in the non-summer months, unless they elect to utilize the alternative Customer Baseline Load methodology.²⁰ PJM notes that, because the formula outlined in section 3.3A.2 does not require a relative root mean square hourly error calculation, Curtailment Service Providers of load management resources would be able to use the default Customer Baseline Load without submitting the relative root mean square hourly error calculation.

11. Second, PJM proposes revisions to the alternative Customer Baseline Load methodology to state that, during the Emergency and Pre-Emergency Load Response Participant registration process, or as otherwise approved by PJM, the relevant participant or PJM's Office of the Interconnection would be able to propose an alternative Customer Baseline Load that more accurately reflects the relevant end-use customer's consumption pattern relative to the default Customer Baseline Load.²¹ PJM notes that, in support of such alternative proposal, the participant would be required to submit a relative root mean square hourly error calculation, as described under the existing language of this section.

12. Finally, PJM proposes to add a new subsection to account for situations where market participants have an emergency and/or pre-emergency load response registration, as well as an associated Economic Load Response Participant registration for the same end-use customer(s). This proposed subsection would require Emergency and Pre-Emergency Load Response Participant registrations to use the Customer Baseline Load defined on the associated Economic Load Response Participant registration because the market participant would have already calculated a relative root mean square hourly error for the end-use customer(s). PJM proposes an exception to this rule if the Economic

¹⁸ A Curtailment Service Provider participates in the PJM capacity market by causing a reduction in demand, acting on behalf of itself or one or more other members or non-members of PJM. Operating Agreement, Schedule 1, § 1.3.1B.03.

¹⁹ PJM February 2, 2016 Filing at 5.

²⁰ Proposed OATT, Attachment K-Appendix, § 3.3.A.2; Proposed Operating Agreement, Schedule 1, § 3.3A.2.

²¹ Proposed OATT, Attachment K-Appendix, § 3.3.A.2.01(a); Proposed Operating Agreement, Schedule 1, § 3.3A.2.01(a).

Load Response Participant uses the maximum baseload Customer Baseline Load alternative registration, as defined in the PJM Manuals.²² PJM notes that this particular alternative Customer Baseline Load method is conservative and will almost certainly underestimate a Demand Resource's actual load reduction when PJM dispatches the Demand Resource during an emergency. Thus, under such circumstances, PJM proposes that the market participant use the Customer Baseline Load method specified in the applicable emergency or pre-emergency load response registration because it will better estimate load reductions under emergency conditions and, therefore, provide a more accurate measurement for compliance obligations and associated penalties in PJM's capacity market.

13. PJM believes these revisions are appropriate because the costs of requiring every Curtailment Service Provider of a load management resource to submit a relative root mean square hourly error calculation for every one of its registrations would outweigh the benefits that this would provide to PJM and the market. PJM states that calculating a relative root mean square hourly error is an administratively burdensome process because it requires an Economic Load Response Participant to collect approximately 60 days of recent hourly load data for each end-use customer. Further, PJM notes that in most cases, the Economic Load Response Participant does not have hourly load data for such end-use customers and therefore must request the load data from the applicable electric distribution company, which adds complexity, costs, and time to the process. PJM points out that, currently, there are approximately 2,000 registrations for Economic Load Response Participants in PJM compared to over 12,000 registrations for load management resources. PJM states that requiring the relative root mean square hourly error calculations for 12,000 additional registrations will be a significant administrative and financial burden for the Curtailment Service Providers of these load management resources.²³

14. PJM recognizes that some administrative costs are required of market participants in order to ensure proper compliance with PJM's market rules, but it believes that the increased costs that would be borne are not necessary to ensure that their load reductions

²² Proposed OATT, Attachment K-Appendix, § 3.3.A.2.01(f); Proposed Operating Agreement, Schedule 1, § 3.3.A.2.01(f). PJM explains that this Customer Baseline Load method was designed for Curtailment Service Providers with end-use customers that predominantly participate in PJM's ancillary service markets where the default Customer Baseline Load is not used. PJM states that such end-use customers have a highly variable load which is difficult to predict, so the maximum baseload Customer Baseline Load ensures load reductions are only realized when load is reduced below a historic minimum level. PJM February 2, 2016 Filing at 11.

²³ PJM February 2, 2016 Filing at 6-7

are properly measured during non-summer months. PJM states that, based on its experience and a detailed 2011 study,²⁴ it believes that the default Customer Baseline Load methodology has proven to be a reasonably accurate method for measuring load reductions across all customer classes and during all weather conditions. PJM does not believe that requiring relative root mean square hourly error calculations from all Curtailment Service Providers of load management Resources will result in significantly more accurate measurements of load reductions on a PJM-wide basis.

15. PJM notes that the Curtailment Service Providers of load management resources were previously not required to submit the relative root mean square hourly error calculation. PJM states that by requiring Curtailment Service Providers of load management resources to submit the relative root mean square hourly error calculation, this would likely jeopardize their ability to register their Demand Resources by the June 1, 2016 registration deadline for the 2016/2017 delivery year. Thus, up to approximately 600 MW of Demand Resources that have already cleared for the 2016/2017 delivery year may not be able to participate.²⁵

16. Finally, PJM states that the greater administrative burden associated with submitting a relative root mean square hourly error calculation placed on Curtailment Service Providers that choose to utilize an alternative Customer Baseline Load methodology is justified because a relative root mean square hourly error is needed to determine which Customer Baseline Load is more accurate. Further, PJM explains, any Curtailment Service Provider of a load management resource that elects to utilize an alternative Customer Baseline Load is on notice that additional effort will be required to prove that its alternative Customer Baseline Load should be used instead of the default Customer Baseline Load.²⁶

17. PJM requests that its proposed revisions become effective on April 4, 2016.

III. Notice of Filing and Responsive Pleadings

18. Notice of PJM's February 2, 2016 filing was published in the *Federal Register*, 81 Fed. Reg. 6855 (2016), with interventions, comments and protests due on or before February 23, 2016. Timely motions to intervene were filed by: the Independent Market

²⁴ *Id.* at 7 (citing KEMA, *PJM Empirical Analysis of Demand Response Baseline Methods* (Apr. 20, 2011), <http://www.pjm.com/~media/markets-ops/dsr/pjm-analysis-of-dr-baseline-methods-full-report.ashx>) (KEMA Study).

²⁵ *Id.* at 7-8

²⁶ *Id.* at 8.

Monitor for PJM (IMM), the Delaware Division of the Public Advocate, EnergyConnect, Inc., PJM Industrial Customer Coalition (Industrial Customers), American Electric Power Service Corporation, East Kentucky Power Cooperative, Inc., PJM Power Providers Group, NRG Power Marketing LLC and GenOn Energy Management, LLC, Advanced Energy Management Alliance (AEMA), Dominion Resources Services, Inc., American Municipal Power, Inc., and CPower Corporation. AEMA filed a motion to intervene and comments in support of the filing. The IMM filed a protest. PJM, Industrial Customers, and AEMA filed answers to the protest. The IMM filed an answer to the answers.

A. Comments in Support

19. AEMA supports PJM's corrective filing because the changes allow PJM to accurately measure load management resource performance during non-summer months, while avoiding the imposition of excessive, and potentially prohibitive, administrative burdens on Curtailment Service Providers and PJM.²⁷

20. AEMA contends that relative root mean square hourly error testing is appropriate for Economic Load Resource Participant registrations but not for load management resource registrations. AEMA argues that there is a fundamental and critical timing difference between these two types of resources. According to AEMA, enhanced Customer Baseline Load accuracy, based on application of the relative root mean square hourly error testing methodology, is necessary for Economic Load Response Participant registrations because these resources offer and clear in PJM's day-ahead and real time energy markets. In addition, Economic Load Response Participants act *voluntarily* in response to short term price signals and for participant specified durations, while load management resource participants are mandated to respond to PJM's dispatch signals.²⁸ AEMA asserts that load management resources have virtually no advance notice of when they will be called upon for a load reduction event and the dispatch signal results from physical system conditions, not prices. AEMA concludes that it is just and reasonable to implement the default Customer Baseline Load as the measurement and verification methodology for all load management resources without requiring the relative root mean square hourly error test be a part of the process unless the customer seeks an alternate Customer Baseline Load.²⁹

²⁷ AEMA Comments at 3.

²⁸ *Id.* at 4.

²⁹ *Id.*

21. AEMA also argues that requiring the relative root mean square hourly error methodology for load management resource registrations would outweigh the benefits, create a barrier to entry for Demand Resources, and impose two different measurement methodologies on load management resources, which is a significant increase in administrative cost that is not imposed on generation resources.³⁰

B. Protests

22. The IMM asserts that PJM is proposing to weaken its measurement and verification method without a factual or analytical basis, and that the relative root mean square hourly error calculation is needed to have accurate measurement of load reductions.³¹ The IMM argues that by proposing to eliminate the requirement to apply a relative root mean square hourly error test to each resource, PJM effectively and incorrectly assumes that the standard Customer Baseline Load type should be used for all Demand Resources. According to the IMM, in order to most accurately measure reductions from Demand Resources, a relative root mean square hourly error calculation must be completed for each Demand Resource to select the most appropriate Customer Baseline Load type.³² The IMM asserts that the administrative burden is worth the cost, and considers accurate measurement and verification to be necessary for demand response to function effectively in the PJM markets.³³

23. The IMM contends that the reliability provided by Demand Resources must be comparable to the reliability provided by generation resources with which Demand Resources compete and sometimes replace in the market. The IMM argues that generation resources are subject to detailed measurement requirements that impose an administrative burden and costs, but the need for such tests is not disputed. The IMM concludes that if PJM and the Curtailment Service Providers do not want the administrative responsibility to gather data and apply the relative root mean square hourly error test, the IMM will accept the administrative responsibility to do so, in the interest of efficient markets.³⁴

³⁰ *Id.* at 5-7.

³¹ IMM Comments at 3.

³² *Id.* at 4.

³³ *Id.* (citing PJM February 2, 2016 Filing at 7).

³⁴ *Id.* at 5.

24. The IMM argues that it is irrelevant that Curtailment Service Providers of load management resources were not previously required to submit relative root mean square hourly error calculations.³⁵ According to the IMM, PJM should be proposing to strengthen the measurement and verification for Demand Resources by applying the same standards to Demand Resources in the capacity market as currently applied to Economic Resources.³⁶ The IMM states that system and market conditions have changed in ways that make the performance measured by the relative root mean square hourly error test more relevant. The IMM points out that in January 2014, there were seven demand response events. The IMM states that a customer's demand curve during the early hours of a cold winter morning will likely be much different than the customer's demand curve during a hot summer day, and the relative root mean square hourly error test will ensure the Demand Resource has an appropriate Customer Baseline Load.³⁷

C. Answers

25. PJM reiterates that it did not seek to change its measurement and verification regime for Demand Resources relative to what was accepted in the June 9 Order but simply sought to correct a drafting oversight.³⁸ Similarly, Industrial Customers explain that, by incorporating by reference the Economic Load Program sections applicable to the Customer Baseline Load, the finalized language in the Capacity Performance Filing resulted in the unintended requirement that all Emergency and Pre-Emergency Load Response Participants calculate a relative root mean square hourly error during the registration process for each end-use customer, as opposed to calculating a relative root mean square hourly error for only those participants seeking an alternative.³⁹

26. PJM disagrees that its proposal weakens measurement and verification for Demand Resources in the capacity market. PJM states that, while it is true that requiring relative root mean square hourly error calculations from all Curtailment Service Providers of all load management resources would likely result in more accurate measurements of load reductions from Demand Resources, such measurements would not

³⁵ *Id.* (citing PJM February 2, 2016 Filing at 7).

³⁶ *Id.* at 2,5.

³⁷ *Id.* at 6.

³⁸ PJM Answer at 3-4.

³⁹ Industrial Customers Answer at 3.

be significantly more accurate on an aggregate basis, which reflects PJM's typical dispatch process. Thus, PJM reiterates that the benefits would not outweigh the cost.⁴⁰

27. AEMA similarly argues that the IMM erroneously asserts that PJM does not pay resources based on aggregate statistics when, in fact, a fundamental component of PJM's Capacity Performance program and the role of Demand Resources in PJM's capacity market is based upon PJM compensating the aggregators of demand resources on the basis of aggregate performance. AEMA states that the majority of customers participate as part of an aggregation by signing up with Curtailment Service Providers. Thus, AEMA explains that, while each customer is measured separately, the sum of individual customer performance is aggregated compliance areas to determine the resources' performance. AEMA states that, for this reason, precision in measurement of individual customer does not have the same relevance in capacity markets as it does for the energy markets.⁴¹

28. According to Industrial Customers, relative root mean square hourly error testing is not appropriate or necessary to ensure accurate measurements of load reductions for all load management resource registrations, pointing to the KEMA Study to support the conclusion that a relative root mean square hourly error of less than 20 percent would very likely be realized for over 90 percent of customers if the default Customer Baseline Load method was applied to assess energy market curtailments. Based on this finding from the KEMA Study, Industrial Customers argue that the use of the default Customer Baseline Load provides nearly the same accuracy as requiring relative root mean square hourly error calculations for all load management resources, and was much simpler and easier to implement. Therefore, they contend that the IMM is mistaken in its assertion that there is weaker measurement and verification for Demand Resources than Economic Resources.⁴²

29. PJM agrees with AEMA that the IMM ignores the differences between Economic Load Resources and load management resources. PJM explains that, since Economic Load Response Participants voluntarily decide when they participate in the energy market depending on when it is economic for them to do so, if permitted to use the default Customer Baseline Load estimate without submitting a relative root mean square hourly error calculation, Economic Load Response Participants could selectively decide when to operate in order to improve their compliance measurements. In contrast, since Curtailment Service Providers of load management resources cannot elect when to

⁴⁰ *Id.* at 4.

⁴¹ AEMA Answer at 3-4.

⁴² Industrial Customers Answer at 4-8.

operate and must reduce load whenever PJM dispatches them during the periods in which they are required to be available, they cannot artificially improve their compliance measurements by electing when to operate.⁴³

30. AEMA asserts that the IMM's example highlighting the shape of a customer's demand curve in the winter as compared to the summer is misleading. AEMA states that the Customer Baseline Load for non-summer months is based on demand during similar days during the previous 45-day period, not the customer's demand curve during a "hot summer day" as the IMM suggested. While the IMM cites winter dispatch and differences between summer and winter load shapes as justifying relative root mean square hourly error testing requirements for non-summer months, AEMA argues that a Customer Baseline Load, particularly the default Customer Baseline Load, will reflect the load shape of recent like days. Thus, AEMA contends that the assertion that a winter Customer Baseline Load would be based on a summer period is erroneous and misleading.⁴⁴

31. With respect to the IMM's statement that it will accept the administrative responsibility to gather data and apply the relative root mean square hourly error test in the interest of efficient markets, PJM argues that this proposal is a new, more rigid, and significantly more cumbersome process for Demand Resources that was never agreed to by PJM and its stakeholders. Further, PJM contends that the IMM does not describe how it will, in a timely manner, gather data, apply the relative root mean square hourly error test for over 12,000 Load Management Resource registrations, or comply with numerous state and local laws and regulations associated with the collection of necessary, often confidential, retail load data. Since the IMM has not described its proposal in enough detail to be considered a realistic solution, PJM argues that the IMM's argument on this point should be rejected.⁴⁵ Similarly, AEMA argues that the IMM's proposal is outside the scope of this proceeding, would substantially increase the administrative burden of relative root mean square hourly error testing for Curtailment Service Providers, and would not be compatible with PJM's Demand Resource registration rules and procedures.⁴⁶ Industrial Customers argue that the IMM's willingness to shift the

⁴³ PJM Answer at 6-7.

⁴⁴ AEMA Answer at 4-5.

⁴⁵ PJM Answer at 7-8.

⁴⁶ AEMA Answer at 2-3.

administrative responsibility does not result in the avoidance of unnecessary costs and time and may result in increased costs.⁴⁷

32. In the IMM's answer to answers, the IMM argues that PJM's proposal is inconsistent with the core requirement of the capacity market design to provide strong incentives for performance because performance would not be accurately measured without the relative root mean square hourly error calculation.⁴⁸ The IMM asserts that while Curtailment Service Provider portfolio compliance is measured as the aggregate performance of individual customers, increased accuracy for individual customers will result in increased accuracy for the aggregate.⁴⁹ The IMM states that while supporting the use of relative root mean square hourly error calculations for Economic Resources, PJM ignores the fact that only one percent of demand response revenue is paid to Economic Resources while 98.4 percent is paid to Demand Resources; thus, the benefits of accurate measurement and verification of Demand Resources would exceed the benefits of applying the relative root mean square hourly error test to Economic Resources.⁵⁰ Finally, the IMM argues that while gaming is not the only consideration, PJM ignores the fact that Demand Resources can be compensated for voluntary compliance, raising the exact gaming issues as Economic Resources.⁵¹

IV. Discussion

A. Procedural Matters

33. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2015), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

34. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2015), prohibits an answer to a protest and answer unless otherwise ordered by the decisional authority. We accept PJM's, Industrial Customers', AEMA's, and the IMM's answers because they have provided information that has assisted us in our decision-making process.

⁴⁷ Industrial Customers Answer at 9-10.

⁴⁸ IMM Answer at 2.

⁴⁹ *Id.* at 3.

⁵⁰ *Id.* at 5.

⁵¹ *Id.* at 6.

B. Commission Determination

35. We accept PJM's proposal to permit Emergency and Pre-Emergency Load Response Participants to use the default Customer Baseline Load when measuring compliance during non-summer months without submission of a relative root mean square hourly error calculation. We find that it is just and reasonable for PJM to require a relative root mean square hourly error calculation only if such market participants elect to submit an alternative Customer Baseline Load.

36. While we acknowledge that use of a relative root mean square hourly error calculation from all Demand Resources would result in more accurate measurements of load reductions, we agree with PJM's assertion that the benefits of improved measurement accuracy would not definitively outweigh the costs of submitting relative root mean square hourly error calculations for 12,000 additional registrations. We further agree with PJM's assertion that, while an individual end-user's load reduction measurement may improve in accuracy by requiring use of the relative root mean square hourly error test, on an aggregate basis, such measurements would not be significantly more accurate. We also agree that the benefits of a relative root mean square hourly error calculation with a default Customer Baseline Load are less significant for Curtailment Service Providers of load management resources than for Economic Load Response Participants, since the former cannot elect when to operate in effort to artificially improve their compliance measurement. Thus, we find that PJM has demonstrated that its proposal allows for the effective measurement of load reduction from Demand Resources during non-summer months, while avoiding excessive administrative burdens on Curtailment Service Providers of load management resources and PJM.

37. We also agree with AEMA that the Customer Baseline Load for non-summer months is based on demand during similar days during the previous 45-day period, and, thus, PJM's proposal to use the default Customer Baseline Load will reflect the load shape of recent like days. Therefore, we reject the IMM's assertions that a relative root mean square hourly error test is necessary to determine the accuracy of a customer's demand curve in winter as compared to summer.

38. We also reject the IMM's contention that since generation resources are subject to detailed measurement requirements, accepting PJM's proposal would result in Demand Resources not being treated comparably to generation resources. The Commission found in the June 9 Order that a different form of measurement for Demand Resources than generation resources, i.e., the use of a Customer Baseline Load during non-summer Emergency Action hours, is an appropriate measure for such performance.⁵² Here, we reach a consistent conclusion and find that PJM's proposal is just and reasonable and

⁵² June 9 Order, 151 FERC ¶ 61,208 at P 180.

sufficiently comparable in accuracy to the measurement requirements associated with generation resources.⁵³

39. We decline to accept the IMM's proposal that, if PJM and the Curtailment Service Providers of load management resources do not want the administrative responsibility to gather data and apply the relative root mean square hourly error test, the IMM will accept the administrative responsibility to do so. As discussed above, we find PJM's proposal to be just and reasonable without the need for a relative root mean square hourly error analysis in all circumstances. That the burden of conducting the analysis would fall to the IMM, rather than PJM or the Curtailment Service Providers, does not alter our conclusion that the benefits of conducting that analysis for 12,000 entities would not definitively outweigh the costs of the incremental improvement in accuracy.

The Commission orders:

PJM's proposed revisions to the OATT and Operating Agreement are hereby accepted, to become effective April 4, 2016, as requested.

By the Commission. Commissioner Clark is concurring in part with a separate statement attached.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

⁵³ We note that comparability does not require that "generation resources and demand resources be subject to the same operational parameters in every circumstance. Treating similarly-situated resources on a comparable basis does not necessarily mean that the resources are treated the same." *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, FERC Stats. & Regs. ¶ 31,241, *order on reh'g*, Order No. 890-A, FERC Stats. & Regs. ¶ 31,261, at P 216 (2007), *order on reh'g*, Order No. 890-B, 123 FERC ¶ 61,299 (2008), *order on reh'g*, Order No. 890-C, 126 FERC ¶ 61,228 (2009), *order on clarification*, Order No. 890-D, 129 FERC ¶ 61,126 (2009).

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C.

Docket No. ER16-873-000

(Issued April 1, 2016)

CLARK, Commissioner *concurring in part*:

In proposing corrections to Tariff and Operating Agreement language describing how PJM measures Demand Resources compliance during non-summer months, I concur with the majority that PJM's assertion that requiring 12,000 first-time relative root mean square hourly error calculations ahead of the 2016/2017 Delivery Year presents significant feasibility and practicality issues.¹

Based on the weight of this argument alone, PJM provides adequate justification for its section 205 filing. As a matter of policy, however, I would urge PJM and PJM stakeholders, along with other regional grid operators and participants, to expand work towards developing methodologies which find better insight into Demand Response and its particular attributes.

When it comes to how the Commission treats Demand Response resources, it is my concern that we have a continuing trend whereby when it relates to compensation, Demand Response is treated as a like-for-like equivalent to generation resources, even though it plainly has different attributes. Yet when it comes to responsibilities and obligations, the same reasoning does not apply.

In the long run, such an asymmetrical structure is not in the best interest of competitive, functional wholesale markets nor the American consumer. The Independent Market Monitor has consistently raised a red flag for the Commission regarding these matters and does so again here in this docket.² The Commission, regional grid operators and stakeholders would do well to address these ongoing concerns lest they degrade the proper functioning of these markets.

For these reasons, I concur in part with the order;

Tony Clark, Commissioner

¹ PJM Filing at 7-8.

² Independent Market Monitor Comments at 2. Independent Market Monitor Answer at 1-2.