

139 FERC ¶ 61,172  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;  
Philip D. Moeller, John R. Norris,  
and Cheryl A. LaFleur.

PJM Interconnection, L.L.C.

Docket No. ER12-1430-000

ORDER ON TARIFF REVISIONS

(Issued June 1, 2012)

1. On April 3, 2012, PJM Interconnection, L.L.C. (PJM) filed revisions to Schedule 1 of its Amended and Restated Operating Agreement (Operating Agreement) and parallel provisions of Attachment K – Appendix of its Open Access Transmission Tariff (Tariff). These proposed changes provide an expanded opportunity for participation by curtailment service providers and end-use customers in PJM’s frequency regulation market (regulation market). As discussed below, the Commission accepts PJM’s proposal.

**I. Background**

2. Frequency regulation service is one of the tools transmission system operators use to balance supply and demand on the transmission system, maintaining reliable operations.<sup>1</sup> When generation does not equal actual load plus losses on a moment-by-moment basis, the imbalance will cause the grid’s frequency to deviate from 60 Hertz, the standard in the United States. Regulation service can help prevent the adverse consequences of frequency deviation by rapidly correcting deviations in the transmission system’s frequency to bring it within an acceptable range. Frequency regulation can be provided by specially equipped generators as well as by other resources, such as demand response resources and storage devices. While demand response resources currently can participate in the PJM regulation market through curtailment service providers in accordance with the requirements set forth in the PJM Economic Load Response

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<sup>1</sup> See, e.g., *Frequency Regulation Compensation in the Organized Wholesale Power Markets*, Order No. 755, 137 FERC ¶ 61,064, at PP 1-5 (2011).

Program,<sup>2</sup> to date there has been very little demand response participation in the regulation market.<sup>3</sup>

3. PJM states that its proposed revisions, developed and endorsed by PJM stakeholders, provide an expanded opportunity for participation by curtailment service providers and end-use customers in the PJM regulation market while simplifying the administrative procedures required for participation.

### **PJM's Filing**

4. PJM explains that the proposed revisions: (1) provide for an "Economic Load Response Regulation Only Registration" to simplify the aggregation process for Regulation Only resources; (2) allow two different curtailment service providers in the PJM Economic Load Response Program to provide demand response services to the same end-use customer where one curtailment service provider will provide the regulation service; and (3) allow equipment specific load data, rather than load data for an entire facility, to measure and verify that the regulation service that cleared the market was actually provided.

5. PJM proposes new subsection 1.5A.3.02 to provide for an "Economic Load Response Regulation Only Registration." A Regulation Only registration may be submitted by a curtailment service provider that is different from the curtailment service provider that submits an Emergency Load Response registration or Economic Load Response registration for the same end-use customer. PJM proposes that, when a curtailment service provider supplies Regulation Only service, the second curtailment service provider that supplies energy service will be precluded from providing other ancillary services. PJM states that this limitation is necessary to prevent an end-use customer from offering the same megawatt (MW) into two different markets. According to PJM, stakeholders agreed that a simple and straightforward way to avoid double counting of MWs was to make this determination in the registration process. PJM states that the proposed rules provide greater flexibility than the current rules, because end-use

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<sup>2</sup> See PJM Operating Agreement, Schedule 1, PJM Economic Load Response Program, section 1.5A; see also PJM Open Access Transmission Tariff (OATT), Attachment K-Appendix.

<sup>3</sup> An April 2012 PJM Demand Response Subcommittee presentation notes a demand response participation rate of 0.2 MW in the regulation market. The presentation is available on the PJM website at: <http://www.pjm.com/~media/committees-groups/subcommittees/drs/20120424/20120424-item-02-ancillary-service-25-percent-limit.ashx>.

customers will have multiple options to participate with more than one curtailment service provider in the different PJM markets.

6. PJM proposes to add new subsection 1.5A.10.01 to allow for the aggregation of Regulation Only registrations. PJM notes that, because the proposed revisions provide for the aggregation of customers served by the same electric distribution company, no load serving entity participation will be required. According to PJM, eliminating load serving entity participation will allow a curtailment service provider to aggregate more locations into a registration to reach the 100 kW minimum aggregation requirement. PJM states that eliminating load serving entity participation will also simplify PJM's administrative process to the extent that load serving entities change frequently due to end-use customers' exercise of retail choice options.

7. PJM states that, in order to accommodate the addition of this new subsection, conforming changes were required throughout the Economic Load Response registration section. These conforming changes clarify that: (1) load serving entities will neither be notified of, nor required to verify, Regulation Only registrations and (2) Economic Load Response Program participants will be required to complete either an Economic Load Response or an Economic Load Response Regulation Only registration form in order to participate in the energy market and/or ancillary services market.

8. PJM proposes to add language to section 1.5A.4, Metering, to allow end-use customers participating in the regulation market to use sub-metered load data for measurement and verification (rather than load data at the electric distribution company account number level). Under the proposed language, curtailment service providers must identify all electrical devices that will provide regulation as well as all other devices used for similar processes within the same location that will not provide regulation. The proposed language also allows PJM to conduct random, unannounced audits of all locations registered to participate in the regulation market and provides that PJM may suspend market activity and make referrals to PJM's Independent Market Monitor and the Commission's Office of Enforcement.

9. In addition, PJM proposes to add definitions of "sub-meter" and "location" to section 1.3 and proposes clean-up changes to the existing definitions of curtailment service provider and Economic Load Response Participant in section 1.3.1B.03 and section 1.3.2A, respectively. These changes clarify that: (1) a curtailment service provider is a PJM member or special member that participates in the energy market, ancillary services market, and/or the Reliability Pricing Model; and (2) an Economic Load Response Participant is a member or special member that may participate in the energy market and/or ancillary services market.

10. PJM requests that its proposed revisions become effective June 1, 2012.

## II. Notice and Responsive Pleadings

11. Notice of PJM's Filing was published in the *Federal Register*, 77 Fed. Reg. 21,760 (2012), with interventions and protests due on or before April 24, 2012.

12. Exelon Corporation, American Municipal Power, Inc., and Old Dominion Electric Cooperative filed timely motions to intervene. In addition, ENBALA Power Networks (USA), Inc. (ENBALA), American Electric Power Service Corporation (AEP), and Viridity Energy, Inc. (Viridity) filed timely motions to intervene and comments. Duke Corporation filed an out-of-time motion to intervene. PJM filed a motion to answer and an answer.

### Procedural Matters

13. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2011), the timely, unopposed motions to intervene serve to make the entities filing them parties to the proceeding. Given the lack of undue prejudice or delay, the parties' interest, and the early stage of the proceeding, the Commission finds good cause to grant Duke Corporation's unopposed, untimely motion to intervene.

14. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2011), prohibits an answer to a protest unless otherwise ordered by the decisional authority. The Commission accepts PJM's answer, because it has provided information that assisted us in our decision-making process.

## III. Discussion

15. The Commission has expressed support for the development of market rules that permit the increased participation of emerging technologies in the regulation market.<sup>4</sup> PJM's proposed revisions will provide an expanded opportunity for the participation of demand response resources in PJM's regulation market, and we find them to be just and reasonable. We will therefore accept them.

### A. Regulation and Other Ancillary Services

#### 1. Comments and Answer

16. ENBALA and Viridity request that the Commission accept PJM's proposal without delay. Viridity asserts that PJM's proposal to allow end-use customers to have

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<sup>4</sup> E.g., Order No. 755, 137 FERC ¶ 61,064 at PP 5, 184.

one curtailment service provider to provide energy service and a second to provide regulation service is an improvement upon the existing “One-CSP rule.”

17. However, Viridity objects to the proposed prohibition on a Regulation Only registrant’s participation in other ancillary services markets.<sup>5</sup> Viridity observes that, under this prohibition, a customer who works with one curtailment service provider can participate in all of the PJM markets in which demand resources are allowed to participate, while a customer who retains a Regulation Only service provider will be denied access to the markets for synchronized reserve and day-ahead scheduling reserve. While PJM characterizes this prohibition as “a simple and straightforward way to avoid the double counting of MWs,” Viridity argues that PJM’s explanation fails to justify the proposed disparate treatment.<sup>6</sup> Viridity agrees with PJM that the same MW from the same end-use customer cannot be allowed to earn revenues from two different ancillary services markets at the same time, but asserts that PJM’s proposed solution is an exceedingly broad and restrictive means to prevent such double payments. Viridity notes that PJM does not suggest that excluding the customer from two markets is the only way or even the best way to prevent double payments, merely stating that stakeholders agreed that it is a “simple and straightforward” way to prevent such payments.<sup>7</sup>

18. In its answer, PJM responds that the fact that its proposed prohibition is not the “only way” or, as Viridity argues, “the best way” to prevent double payments does not alter the fact that the proposal constitutes a reasonable tariff change under section 205 of the Federal Power Act.<sup>8</sup> PJM asserts that the Regulation Only registration does not result in discriminatory treatment of resources or curtailment service providers as: (1) nothing precludes stakeholders from agreeing to different categories of participation in wholesale markets; (2) the proposal provides end-use customers with more options to participate in PJM markets than existed before; and (3) the Commission has found that where end-use customers are free to choose among proposed and existing rate structures, there is no undue discrimination.<sup>9</sup>

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<sup>5</sup> Viridity April 24, 2012 Comments at 4.

<sup>6</sup> *Id.* at 4-5 (citing PJM Transmittal at 6).

<sup>7</sup> We note that Viridity’s complaint in docket EL12-54-000 raises similar arguments about PJM rules pertaining to end use customers working with multiple curtailment service providers.

<sup>8</sup> 16 U.S.C. § 824d (2006).

<sup>9</sup> PJM May 10, 2012 Answer at 3-5 (citing *Transcon. Gas Pipe Line Corp.*, 46 FERC ¶ 61,364 at 62,141 (1989) and *Exelon Corp.*, 103 FERC ¶ 61,164, at P 14 (2003)).

## 2. Commission Determination

19. PJM's proposed revisions create an Economic Load Response Regulation Only registration. Under PJM's proposal, a resource with a Regulation Only registration is prohibited from participating in other ancillary services markets.

20. PJM's proposal provides new opportunities for demand response resources to participate in the regulation market with conditions that PJM argues are necessary. PJM states that allowing one curtailment service provider to provide regulation services and another to provide other ancillary services could lead to an overlap of the same MW from the same end-use customer in two different markets. PJM states that PJM and its stakeholders agreed that a straightforward way to avoid the same MW from the same end-use customer clearing in both the regulation and synchronized reserves markets was to make this determination in the registration process.<sup>10</sup> PJM argues that under its proposal, end-use customers will have multiple options to participate in the different PJM markets with more than one curtailment service provider, which greatly expands flexibility as compared to the existing market design, which is based on a generation resource where one PJM member represents each unit.

21. The proposed revisions do not eliminate any existing option for end-user participation in PJM's markets; instead, they increase the number of options available. An end user can choose among various curtailment service providers the one that is best able to meet its needs. The curtailment service providers also can compete with respect to the type and scope of services they can provide. We thus agree with PJM that its proposal provides expanded opportunities for the participation of demand resources. Viridity itself does not argue that the filing should be rejected; instead, Viridity argues that PJM's proposal takes important steps toward removing obstacles to competition and requests that the Commission accept the proposal without delay. We therefore find no basis to reject PJM's proposal as unjust and unreasonable for failing to permit customers

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<sup>10</sup> PJM explains that one of the fundamental challenges when a resource participates in multiple markets and may reflect the aggregation of multiple individual end-use customers is to ensure that PJM accurately considers the correct available MWs for each market. Currently, PJM "ensures each customer or aggregation of customers can participate in the market only up to its available MW amount up front in the registration process. Once the registration is complete, a [curtailment service provider] can then bid and therefore be dispatched on a resource basis where PJM considers each resource independently in market clearing and dispatch algorithms and does not consider a dependent relationship among the different [curtailment service provider] bids in the different PJM markets." PJM Transmittal at n.7.

to use multiple curtailment service providers to provide regulation and other ancillary services.<sup>11</sup>

## **B. Sub-Metering**

### **1. Comments and Answer**

22. AEP argues that PJM's proposal to allow the use of sub-metered load data for regulation measurement and verification lacks sufficient detail, and may therefore have unintended consequences such as settlement errors and operational risk.<sup>12</sup> AEP notes that under PJM's proposal, the method used to determine each customer's load for Economic Load Response registration (that is, utilizing electric distribution company account data) is different from the method used to verify the loads that actually provide regulation service.<sup>13</sup> AEP is concerned that the proposed revisions do not identify who is responsible for owning, calibrating, or testing the sub-meters, nor who is responsible for ensuring that sub-metered loads accurately capture the controllable loads at a location. AEP recommends holding further stakeholder discussions to address its concerns with the use of sub-metered load data.<sup>14</sup>

23. In its answer, PJM disagrees that its sub-metering proposal is insufficiently detailed. According to PJM, its existing tariff is clear that it is the curtailment service provider that is solely responsible for compliance with metering equipment requirements. PJM states that its proposed sub-metering revisions explicitly require the curtailment service provider to provide PJM with information on the electrical devices that will be

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<sup>11</sup> See *Oxy USA, Inc. v. FERC*, 64 F.3d 679, 692 (D.C. Cir. 1995) (finding that under the FPA, as long as the Commission finds a methodology to be just and reasonable, that methodology "need not be the only reasonable methodology, or even the most accurate one"); *Cal. Indep. Sys. Operator Corp.*, 128 FERC ¶ 61,265, at P 21 (2009) (finding that "[u]nder the Federal Power Act, the issue before the Commission is whether the CAISO's proposal is just and reasonable and not whether the proposal is more or less reasonable than other alternatives."); *Louisville Gas & Electric Co.*, 114 FERC ¶ 61,282, at P 29 (2006) (finding that "the just and reasonable standard under the FPA is not so rigid as to limit rates to a 'best rate' or 'most efficient rate' standard. Rather, a range of alternative approaches often may be just and reasonable.").

<sup>12</sup> AEP April 24, 2012 Comments at 2-3.

<sup>13</sup> *Id.* at 3-4.

<sup>14</sup> *Id.* at 4-5.

controlled for regulation service and on other electrical devices used for similar purposes that will not be controlled for regulation service.

## **2. Commission Determination**

24. Under PJM's proposal, end-use customers participating in the regulation market are permitted to use sub-metered load data (rather than load data at the electric distribution company account number level) for measurement and verification. AEP objects that PJM's proposal on the use of sub-metered data lacks sufficient detail, and asks that the Commission direct further stakeholder discussion on the issue.

25. We find PJM's proposal just and reasonable as filed. Although, of course, stakeholders may choose to further discuss this issue, we decline to direct further stakeholder discussion. As to AEP's concern that the proposed revisions do not identify the party responsible for owning, calibrating, and testing the sub-meters, PJM notes in its answer that its existing tariff is clear that it is the curtailment service provider that is solely responsible for compliance with metering equipment requirements. Moreover, PJM's proposed sub-metering revisions explicitly require the curtailment service provider to provide PJM with information on the electrical devices that will be controlled for regulation service and on other electrical devices used for similar purposes that will not be controlled for regulation service. As to AEP's concern that PJM has not identified the party responsible for ensuring that sub-metered loads accurately capture the controllable loads at a location, PJM states that it will review the information provided by the curtailment service provider and approve the use of sub-meter load data to measure the compliance of the regulation resource if the electricity consumption of the electrical devices used for similar purposes will be included in the sub-meter load data. PJM states that this approach will ensure that the change in electricity usage for one electrical device that is controlled for regulation is not offset by an opposite change in electricity usage from a similar electrical device. The result, according to PJM, will be that the regulation service purchased by the market to manage frequency control will be properly measured, thereby ensuring that the regulation service was properly provided by market participants. We are satisfied with PJM's explanation that it is PJM who is responsible for ensuring that sub-metered loads accurately capture the controllable loads at a location.

## **C. Audits**

### **1. Comments and Answer**

26. AEP expresses concern with the proposed revisions allowing PJM to conduct "random, unannounced audits" of all locations registered to participate in the regulation market. AEP asserts that while it supports the verification of sub-metered load data, PJM is not the appropriate entity to audit retail locations, citing concerns over jurisdiction and

expertise.<sup>15</sup> AEP also suggests that it would be more appropriate to require audits on a “regular,” rather than “random, unannounced” basis, and notes that PJM’s proposal does not specify the entity responsible for the cost of the audit. AEP recommends holding further stakeholder discussions to address these issues.<sup>16</sup>

27. As to AEP’s jurisdictional concerns with its auditing proposal, PJM responds that its revisions do not alter the existing Economic Load Response Program registration rules, which defer to the relevant electric retail regulatory authority to decide whether retail customers are eligible to participate in PJM’s demand response programs. With respect to the manner of conducting the audits, PJM argues that the proposed revisions allow it to perform the audits itself or through third party contractors. Finally, PJM states that it anticipates that the audit costs can be accommodated within the existing PJM tariff schedule 9, Administrative Services.

## 2. Commission Determination

28. We find PJM’s reservation of the right to conduct audits to be just and reasonable. PJM is the entity responsible for conducting audits of end-use customers in other circumstances, for example, in energy efficiency installation measurement and verification.<sup>17</sup> Furthermore, PJM notes in its answer that the proposed Regulation Only registration is a subset of Economic Load Response registration, and does not in any way alter the existing Economic Load Response registration rules.

29. We do not agree with AEP that PJM’s Filing is unjust and unreasonable for not requiring audits to be conducted at regular intervals. We find that it is reasonable for PJM to schedule audits as it deems necessary without incurring the added costs that would be entailed by a mandated auditing schedule.<sup>18</sup> As to AEP’s other concerns, PJM notes that it retains the flexibility to conduct audits itself or through a third-party contractor and that it anticipates that the audit costs can be accommodated within the existing PJM tariff schedule 9, Administrative Services. We therefore decline to direct further stakeholder discussion on these issues.

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<sup>15</sup> *Id.* at 5.

<sup>16</sup> *Id.* at 4-5.

<sup>17</sup> See PJM Manual 18B, Energy Efficiency Measurement & Verification, section 6, M&V Audit Process.

<sup>18</sup> We note that PJM currently provides for audits of energy efficiency installations at random intervals. *Id.*

The Commission orders:

PJM's Filing is hereby accepted, to become effective June 1, 2012.

By the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.