

135 FERC ¶ 61,102
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

PJM Interconnection, L.L.C.

Docket Nos. ER11-2288-001
ER11-2288-002

ORDER ON COMPLIANCE FILING AND REHEARING

(Issued April 29, 2011)

1. On December 2, 2010, PJM Interconnection, L.L.C. (PJM), pursuant to section 205 of the Federal Power Act,¹ submitted revisions to the PJM Open Access Transmission Tariff (Tariff) and the Reliability Assurance Agreement (RAA) among load serving entities in the PJM Region (December 2, 2010 Filing or PJM Filing) to establish additional product alternatives for demand resources² seeking to participate in PJM's capacity market. On January 31, 2011, the Commission accepted PJM's proposed Tariff and RAA revisions, effective February 1, 2011, subject to compliance and informational filings.³ PSEG⁴ has requested rehearing of the January 31, 2011 Order. In this order, we accept the compliance filing and deny PSEG's request for rehearing.

¹ 16 U.S.C. § 824d (2006).

² In PJM, a demand resource is a resource with a demonstrated capability to provide a reduction in demand or otherwise control load, and that offers and clears the load reduction capability in a PJM capacity auction or through a Fixed Resource Requirement capacity plan. See PJM RAA, Article 1 at section 1.13 (Demand Resource).

³ *PJM Interconnection, L.L.C.*, 134 FERC ¶ 61,066 (2011) (January 31, 2011 Order).

⁴ Public Service Electric and Gas Company, PSEG Power LLC, and PSEG Energy Resources & Trade LLC.

I. Background

2. Under the Reliability Pricing Model (RPM) rules, PJM conducts forward auctions⁵ to secure capacity for a future delivery year, thereby allowing both existing and proposed generation, demand response and energy efficiency resources to compete to meet the region's installed capacity needs. Once committed in the capacity auction, demand resources must reduce load subsequent to a request from PJM following the declaration of a Maximum Emergency Generation action, unless the resource has already reduced load pursuant to PJM's economic load response program.⁶

3. In the December 2, 2010 Filing, PJM proposed to establish two additional demand resource products, one available throughout the year for an unlimited number of interruptions (Annual DR),⁷ and one available for an unlimited number of interruptions from May through October (Extended Summer DR), in addition to retaining its existing demand resources program.⁸ Both the Annual and Extended Summer DR products are available for up to ten hours per interruption.

4. In the January 31, 2011 Order, the Commission accepted PJM's proposal to establish the Annual DR and Extended Summer DR products. The Commission found that along with PJM's current demand resource product, the addition of Annual DR and Extended Summer DR will add flexibility to PJM's ability to procure adequate capacity in the RPM auctions and enhance PJM's emergency dispatch options. The Commission

⁵ Under RPM, PJM conducts a base residual auction three years ahead of each delivery year, in which it procures the majority of the capacity that will be required for that delivery year. Additionally, while RPM is designed to enable PJM to procure the bulk of needed capacity for each delivery year in the base residual auction for that year, during the three-year period between the base residual auction and the delivery year, PJM also conducts three scheduled incremental auctions.

⁶ PJM Tariff, Attachment K-Appendix, PJM Emergency Load Response Program, Emergency Operations.

⁷ PJM also proposed to define a new term, annual resource, to encompass Annual DR, generation capacity resources, and energy efficiency resources, all of which are generally available at all times (if not on an approved maintenance outage).

⁸ PJM retained the existing demand resource product, but renamed it "Limited Demand Resource" (Limited DR) to distinguish it from the two new proposed products. Limited DR is available for up to ten interruptions, at six hours per interruption, during the months of June through September.

directed PJM to file revised Tariff provisions within 30 days to set the methodology for determining the Limited and Extended Summer DR Reliability Targets (DR Targets).⁹

5. In the January 31, 2011 Order, the Commission also accepted PJM's proposal to establish a Minimum Annual Resource Requirement and a Minimum Extended Summer Resource Requirement to resolve operational constraints associated with more limited products.¹⁰ The Minimum Annual Resource Requirement and Minimum Extended Summer Resource Requirement are established by subtracting the Extended Summer DR Target and Limited DR Target, respectively, along with the short-term resource procurement target,¹¹ from the PJM region reliability requirement.

6. The January 31, 2011 Order rejected arguments from PSEG that PJM is assuming an unwarranted degree of risk in meeting reliability standards by planning its system around a resource type that has not been tested or shown to exist in sufficient quantities.¹² The January 31, 2011 Order also dismissed comments from PSEG and Joint Consumer Advocates arguing that the use of a 90 percent confidence level in setting the DR Targets will cause PJM to exceed a one day in ten year loss of load expectation (LOLE). The Commission determined that PJM's DR Target calculation methodology appeared consistent with PJM's prior modeling methods, and concluded: "We will accept PJM's

⁹ In its December 2, 2010 Filing, PJM defined the Limited DR and Extended Summer DR Targets as "the maximum amount [of these resources] determined by PJM, in accordance with procedures specified in the PJM Manuals, to be consistent with the maintenance of reliability, stated in Unforced Capacity, that shall be used to calculate the Minimum [] Resource Requirement."

¹⁰ The Minimum Annual Resource Requirement is defined as the minimum amount of capacity that PJM will seek to procure from annual resources (generation capacity resources, Annual DR and energy efficiency resources) for the PJM region and the Locational Deliverability Areas (LDAs). The Minimum Extended Summer Resource Requirement is the minimum amount of capacity that PJM will seek to procure from annual resources and Extended Summer DR for the PJM region and the LDAs.

¹¹ Under PJM's existing Tariff, the short-term resource procurement target (2.5 percent hold-back) is a reduction to the reliability requirement used by PJM for purposes of the base residual auctions. As approved by the Commission, it effectively defers a small portion (2.5 percent) of PJM's procurement of capacity resources from the base residual auction for a delivery year to the incremental auctions for that delivery year. See *PJM Interconnection, L.L.C.*, 126 FERC ¶ 61,275 (2009).

¹² January 31, 2011 Order at P 43-46.

proposal to the extent that it is consistent with the RAA, but make clear that nothing in our acceptance should be construed as permitting PJM to violate the RAA.”¹³

II. Compliance Filing

7. On March 2, 2011, PJM filed in compliance with the January 31, 2011 Order (March 2, 2011 Compliance Filing). To describe the methodology for calculating the Extended Summer DR Target, PJM proposes revisions to section 2.24C of Attachment DD of the Tariff. Specifically, PJM proposes:

For both the PJM Region and LDA analyses, PJM [] models the commitment of varying amounts of DR (displacing otherwise committed generation) as interruptible from May 1 through October 31 and unavailable from November 1 through April 30 and calculates the LOLE at each DR level. The Extended Summer DR Reliability Target is the DR amount, stated as a percentage of the unrestricted peak load, that produces no more than a ten percent increase in the LOLE, compared to the reference value.

8. To describe the methodology for calculating the Limited DR Target, PJM proposes revisions to section 2.36B of Attachment DD of the Tariff. Specifically, PJM proposes:

As more fully set forth in the PJM Manuals, PJM calculates the Limited Demand Resource Reliability Target by first: i) testing the effects of the ten-interruption requirement by comparing possible loads on peak days under a range of weather conditions [] against possible generation capacity on such days under a range of conditions [] and, by varying the assumed amounts of DR that is committed and displaces committed generation, determines the DR penetration level at which there is a ninety percent probability that DR will not be called [] more than ten times over those peak days; and ii) testing the six-hour duration requirement by calculating the MW difference between the highest hourly unrestricted peak load and seventh highest hourly unrestricted peak load on certain high peak load days [] in recent years, then dividing those loads by the forecast peak for those years and averaging the result. Second, PJM adopts the lower result from these two tests as the Limited Demand Resource Reliability Target.

¹³ *Id.* P 74.

9. PJM also submitted various revisions to Attachment DD of its Tariff pursuant to the January 31, 2011 Order. Specifically, PJM revises section 5.12(b) and 5.10(c) of Attachment DD to reflect the fact that the minimum resource requirements will be based on the most recent DR Targets and will be established prior to each incremental auction, respectively. PJM revises section 2.24C of Attachment DD to clarify that the Extended Summer DR Target is the maximum amount of “the combination of” Extended Summer Demand Resources “and Limited Demand Resources” that shall be used to calculate the Minimum Annual Resource Requirement. Finally, PJM revises various sections of Attachment DD to require the establishment of minimum resource requirements and DR Targets for each LDA for which PJM establishes a separate Variable Resource Requirement (VRR) curve for the RPM base residual auction.

10. Notice of PJM’s compliance filing was published in the *Federal Register*, 76 Fed. Reg. 13,176 (2011), with interventions and protests due on or before March 23, 2011. No party filed comments or protests to the March 2, 2011 Compliance Filing.

III. Request for Rehearing

11. On March 2, 2011, PSEG submitted a request for rehearing on the Commission’s January 31, 2011 Order. According to PSEG, the Commission erred in its consideration of (1) the safeguards for bidding on the two new demand resource products (i.e. Extended Summer DR and Annual DR) and (2) whether PJM’s approach to setting the DR Targets is consistent with the PJM RAA requirements. PJM filed an answer and PSEG filed a responsive pleading.

IV. Discussion

A. Procedural Issues

12. Rule 713(d) of the Commission’s Rules of Practice and Procedure prohibits answers to requests for rehearing.¹⁴ Accordingly, we reject PJM’s and PSEG’s answers.

B. Rehearing Issues

1. Eligibility and Performance Safeguards

13. In its request for rehearing, PSEG states that the Commission erred in rejecting its contention that PJM had failed to include adequate safeguards over the bidding, use and performance of Extended Summer DR and Annual DR. PSEG states that the January 31, 2011 Order incorrectly determined that PSEG’s claims were beyond the

¹⁴ 18 C.F.R. § 385.713(d) (2010).

scope of PJM's proposed Tariff revisions. PSEG states that there were no existing standards for Extended Summer and Annual DR eligibility and performance prior to the December 2, 2010 Filing and the only standards that existed in the Tariff were expressly limited to Limited DR. PSEG contends that the existing Tariff provisions concerning the Limited DR product are inadequate to address the concerns associated with Extended Summer DR and Annual DR. On this point, PSEG states that even if the current PJM procedures address the magnitude and duration of the response capability of the new resources, nothing in the order or in PJM's Tariff explains how PJM will evaluate the frequency of resources' response capabilities.

14. Finally, according to PSEG, the January 31, 2011 Order failed to adequately respond to concerns expressed by PSEG by suggesting that PJM should hold a stakeholder process if demand resource dispatch increases above historical levels. PSEG contends that the Commission should not wait until the expected demand resource deployment levels have already increased – at which time it may be too late to initiate any remedies – before addressing the issues associated with performance of the new demand resource products.

15. PSEG maintains that the Commission must require PJM to revise the safeguard provisions of its tariff to reflect the new demand resource products. We affirm our determination that this is beyond the scope of PJM's section 205 filing because PJM has not proposed to revise the safeguard provisions.

16. Nor do we find any basis to reject or modify PJM's proposal because it did not propose to modify the safeguard provisions. We further affirm our determination that the combination of both *ex ante* and *ex post* safeguards in the current Tariff are sufficient for the new demand response products. These safeguards provide a sound basis for anticipating that a demand resource provider will bid Annual DR and Extended Summer DR into a RPM base residual auction only when it is confident that it has secured or will secure the capability to respond with the frequency and in the amounts required to fulfill the obligations it undertakes to the PJM market. The Tariff references provided in the January 31, 2011 Order do not limit PJM's review of nominated values to any single parameter or group of parameters, such as the magnitude or duration of a resource's availability, as PSEG argues. Rather, section K of Attachment DD-1 of PJM's Tariff states that prior to the first day of the delivery year, PJM reviews the nominated demand resource values that are submitted by demand resource suppliers to verify the amount of load management available and to set a maximum allowable nominated value. Further, entities must also demonstrate that a planned demand resource has the capability to

provide a reduction in demand, or otherwise control load, on or before the start of the delivery year for which such resource is committed.¹⁵

17. As stated in the January 31, 2011 Order, when demand resources are not available at the capacity level committed in an RPM auction, PJM's Tariff provides adequate provisions to ensure that resources can either obtain replacement capacity or incur penalties for not meeting their capacity commitments. For instance, Attachment DD of PJM's Tariff outlines the manner in which participants with committed capacity resources can submit buy bids in an incremental auction for replacement capacity resources.¹⁶ The Tariff also provides capacity resource deficiency charges for committed planned demand resources and existing demand resources that are unable to deliver unforced capacity.¹⁷ Further, the penalty provisions of the Tariff assure that resources are available in the delivery year in accordance with the specific resource type that was committed in the RPM auction.

18. As PSEG indicates, the level of demand resource deployment will vary depending on the level of demand resource penetration. In an extreme circumstance, PSEG provides an example where Extended Summer DR and Annual DR would be obligated to curtail every day during the period in which they are required to respond. However, the demand resources would be obligated under the Tariff to meet that level of performance and would be penalized for failing to meet it. Demand resources that cannot meet the requirements should not, and would be discouraged from, submitting bids in those categories.¹⁸

¹⁵ PJM Tariff, Attachment DD-1, section A.5.

¹⁶ PJM Tariff, Attachment DD, section 5.4(d) (Commitment of Replacement Capacity through Scheduled Incremental Auctions).

¹⁷ PJM Tariff, Attachment DD, section 8.1 (Capacity Resource Deficiency Charge).

¹⁸ Indeed, as pointed out in the January 31, 2011 Order, the new demand resource products will create incentives for demand resource aggregators to combine multiple demand resources in order to meet their capacity obligations. *See* January 31, 2011 Order at P 28. Therefore, not every resource would need to be available on every day.

19. Moreover, as PSEG notes, the level of demand resources procured for the 2013/2014 delivery year was about 6.1 percent.¹⁹ At this level of penetration, we do not share PSEG's concerns that the number of emergency calls in the delivery year will increase substantially relative to historical years. According to the Falin Affidavit, at 6.1 percent, PJM can be approximately 95 percent confident that emergency demand resources will be interrupted ten times or less.²⁰ However, this level of interruption does not exceed the obligations currently in place for the Limited DR product, which is required to be available for up to ten interruptions. Thus, we see no immediate concern with the frequency at which the Annual DR and Extended Summer DR products will be needed.

20. We therefore find no factual basis to find PJM's filing deficient. As we stated previously, even if there are no immediate concerns given the expected conditions, PJM should initiate stakeholder discussions if the frequency of emergency calls or level of demand resource participation increases substantially in the future. As PJM procures capacity in the base residual auction three years in advance of the delivery year, it will have time to develop mechanisms for the incremental auctions to ensure adequate capacity by the delivery year in the event that it projects an extreme level of emergency calls as a result of displaced generation in the capacity auction.

2. RAA Requirements

21. In its request for rehearing, PSEG states that the Commission erred in rejecting its claim that the DR Target level for Limited DR and Extended Summer DR were set too high in violation of the one day in ten year LOLE standard set by NERC. PSEG explains that the order accepted PJM's filing "to the extent that it is consistent with the RAA," but never determined what the RAA required. PSEG states that the RAA requires adherence to NERC standards, which includes the one day in ten year LOLE. Thus, PSEG claims that at a minimum, on rehearing, the Commission needs to address whether PJM's DR filing and the determination of DR Target levels meets RAA requirements.

22. PSEG also maintains that the January 31, 2011 Order accepted PJM's allegation, without any independent analysis that deliberately setting the DR Target level for Extended Summer DR at a level equivalent to one day in nine-years LOLE meets the NERC standard. Instead, states PSEG, the Commission accepted PJM's representations

¹⁹ PSEG Request for Rehearing at 15, *citing* 2013/2014 Base Residual Auction Results," (*available at* <http://www.pjm.com/markets-andoperations/rpm/~media/markets-ops/rpm/rpm-auction-info/2013-2014-base-residual-auction-report.ashx>).

²⁰ PJM December 2, 2010 Filing, Falin Affidavit, Exhibit 1, Figure 3.

concerning statistical analysis techniques. PSEG claims that use of a 90 percent confidence factor in calculating the DR Target levels is distinguishable and even inconsistent with the other examples identified by PJM in which a confidence factor was used. According to PSEG, this is not a proper application of the confidence level concept; rather, it is a deliberate choice to use a less reliable standard in lieu of the NERC mandated standard.

23. Under PJM's Tariff and RAA, PJM is responsible,²¹ in conjunction with its regional entity for ensuring that its LOLE and Installed Reserve Margin (IRM) are calculated appropriately.²² PJM states that it has passed previous reliability audits when demand resources were required to be even less available than under the current proposal.²³ In addition, under PJM's calculations, procurement of resources adding up to the IRM does not necessarily provide 100 percent certainty that the resources acquired will always equal the IRM, because some resources that were measured by sampling may not be equal to their estimated values. In any event, PJM appears to have mechanisms to ensure compliance with the PJM Tariff and RAA, such as adjusting the IRM after the base residual auction and procuring the associated additional resources in the subsequent incremental auctions.²⁴ Finally, we also find PJM's proposal in this filing just and reasonable because establishing minimum requirements for more available resources and targets for less available demand resource products produces more efficient price signals than its prior Tariff. As the Commission noted in the January 31, 2011 Order,²⁵ PJM should continue to reevaluate all aspects of RPM with its stakeholders to ensure that the IRM, as well as the minimum resource requirements and DR Targets, produce just and reasonable prices in the base residual auction.

²¹ *PJM Interconnection, LLC*, 119 FERC ¶ 61,318, at P 49 (2007) ("the Commission is not determining the capacity requirement; rather, PJM uses the loss of load methodology as determined by Reliability First, the regional reliability council, of which PJM is a member, to determine the resource adequacy requirement").

²² *Planning Resource Adequacy Assessment Reliability Standard*, Order No. 747, 134 FERC ¶ 61,212 (2011).

²³ PJM January 7, 2011 Answer to Protest at 25.

²⁴ PJM Tariff, Attachment DD, section 5.4(c).

²⁵ January 31, 2011 Order at P 73.

C. Compliance Filing

24. We accept the March 2, 2011 Compliance Filing, effective February 1, 2011, as consistent with the January 31, 2011 Order.

The Commission orders:

(A) PSEG's request for rehearing of the January 31, 2011 Order in this proceeding is denied, as discussed in the body of this order.

(B) PJM's March 2, 2011 Compliance Filing is hereby accepted, to be effective February 1, 2011, as discussed in the body of this order.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.