

134 FERC ¶ 61,066
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 No. ER11-2288-000

ORDER ON PROPOSED TARIFF PROVISIONS

(Issued January 31, 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 resources seeking to participate in PJM's capacity market,² to be effective February 1, 2011. In this order, the Commission accepts PJM's proposed Tariff and RAA revisions, effective February 1, 2011, subject to compliance and informational filings.

I. Background

2. Under the Reliability Pricing Model (RPM) rules, PJM conducts forward auctions 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. PJM provides for demand resources to be offered into the auction in competition with generation and energy efficiency resources.³ These

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 Prior to the RPM, load serving entities (LSE) demonstrated, subject to a PJM review, that they had customers that were contractually committed to interrupt their load during peak demand periods, reducing the amount of installed generating capacity the LSE had to commit to PJM for the LSE's peak loads.

demand resources must reduce load subsequent to a request for load reduction 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.⁴

3. The level of demand resources committed to PJM has grown with the implementation of RPM.⁵ Under the current RPM rules, demand resources can qualify for the RPM provided they:

- can be interrupted during the hours of 12:00 p.m. to 8:00 p.m. (Eastern Prevailing Time) on non-Holiday weekdays during the months of June through September;
- can be called upon for interruptions up to ten times during that period each year; and
- can remain interrupted for up to six hours when called upon.

4. PJM contends that as more megawatts of resources that are only available during narrowly defined peak periods are committed, fewer megawatts of more broadly available resources are committed. As a result, PJM raises a concern that commitment of fewer resources that are more broadly available increases the risk that PJM may have to call on a resource at a time, or in a manner, in which the resource is not required to respond.

5. In order to address its concerns, PJM proposes to establish two additional demand resource products, one available throughout the year (Annual DR),⁶ and one with an expanded summer commitment period compared to the current product (Extended Summer DR), in addition to retaining its existing demand resources program.⁷ PJM

⁴ PJM Tariff, Attachment K-Appendix, PJM Emergency Load Response Program, Emergency Operations.

⁵ In the last delivery year before RPM was implemented, the amount of participating load response in PJM was about 1.5 percent of peak load. Demand resources equating to about 6 percent of PJM's peak load were cleared in the RPM auction for capacity commitments for the 2013-14 delivery year. PJM Filing at 6-7.

⁶ PJM also proposes 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).

⁷ PJM proposes to retain the existing demand resource product, but rename it Limited Demand Resource (Limited DR) to distinguish it from the two new proposed products.

contends that these additional products will significantly enhance PJM's emergency dispatch options while formally recognizing, through capacity resource commitments, the expanded response capabilities that are latent in many existing demand resources.⁸

II. Notice of Filing, Interventions and Responsive Pleadings

6. Notice of this proceeding was published in the *Federal Register*, 75 Fed. Reg. 79,365, with interventions, comments or protests due on December 23, 2010.

7. Notices of intervention were filed by the New Jersey Board of Public Utilities, Illinois Commerce Commission (Illinois Commission), and Pennsylvania Public Utility Commission (Pennsylvania Commission). Motions to intervene were filed by Public Service Commission of Maryland (Maryland Commission), Delaware Public Service Commission, Office of the Ohio Consumers' Counsel (Ohio CC), Office of the People's Counsel of the District of Columbia (OPC DC), Pennsylvania Office of Consumer Advocate (Pennsylvania OCA), Maryland Office of People's Counsel (Maryland OPC), EnergyConnect, Inc. (EnergyConnect), Viridity Energy, Inc. (Viridity), ClearChoice Energy (ClearChoice), PJM Industrial Customers Coalition (PJMICC), Hess Corporation (Hess), Monitoring Analytics, LLC (Monitoring Analytics),⁹ Edison Mission Energy, Inc. (Edison Mission), FirstEnergy Corp., NextEra Energy Generators,¹⁰ Comverge, Inc. (Comverge), Energy Curtailment Specialist, Inc. (ECS), EnerNoc, Inc. (EnerNoc), Allegheny Energy Supply Company, LLC, Duquesne Light Company, North Carolina Electric Membership Corporation, Borough of Chambersburg, Pennsylvania, GenOn Energy Management, LLC (GenOn), Electric Power Supply Association, Old Dominion Electric Cooperative, Dominion Resources Services, Inc.,¹¹ American Municipal Power, Inc. (AMP), Rockland Electric Company (Rockland), PHI Companies,¹² PJM Power

⁸ PJM Filing at 1, 20.

⁹ Acting in its capacity as the Independent Market Monitor (IMM) for PJM.

¹⁰ FPL Energy Marcus Hook, L.P., North Jersey Energy Associates, L.P., Doswell Limited Partnership, Backbone Mountain Windpower LLC, Mill Run Windpower LLC, Somerset Windpower LLC, Meyerdale Windpower LLC, Waymart Wind Farm, LP, and Pennsylvania Windfarms, Inc.

¹¹ On behalf of Dominion Energy Marketing, Inc., Elwood Energy, LLC, Fairless Energy, LLC, State Line Energy, LLC, Kincaid Generation, LLC, and Virginia Electric and Power Company.

¹² Pepco Holdings, Inc., Potomac Electric Power Company, Atlantic City Electric Company, and Delmarva Power & Light Company.

Providers Group (P3), Nucor and Steel Dynamics (Steel Producers), PSEG Companies,¹³ American Electric Power Service Corporation (AEP),¹⁴ Dayton Power and Light Company (Dayton), Constellation Parties,¹⁵ Duke Energy Corporation,¹⁶ Allegheny Energy Companies (Allegheny), and Exelon Corporation.

8. Comments were filed by Illinois Commission, Pennsylvania Commission, Maryland Commission, PHI Companies, Rockland, ClearChoice, AMP, and Joint Supporters.¹⁷ Protests were filed by PSEG Companies, Viridity, Dayton, Allegheny, Constellation Parties, Indicated RPM Suppliers,¹⁸ Steel Producers, P3, Monitoring Analytics, and Joint Consumer Advocates.¹⁹ Joint Supporters, PJM, Viridity, Indicated RPM Suppliers, PSEG, and Joint Consumer Advocates filed motions and answers to the comments and protests.

¹³ Public Service Electric and Gas Company, PSEG Power LLC, and PSEG Energy Resources & Trade LLC.

¹⁴ On behalf of Appalachian Power Company, Columbus Southern Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company, Wheeling Power Company, AEP Appalachian Transmission Company Inc., AEP Indiana Michigan Transmission Company Inc., AEP Kentucky Transmission Company Inc., AEP Ohio Transmission Company Inc., and AEP West Virginia Transmission Company.

¹⁵ Baltimore Gas and Electric Company, Constellation Energy Commodities Group, Inc., Constellation Power Source Generation, Inc., and Constellation NewEnergy, Inc. (Constellation Parties).

¹⁶ On behalf of Duke Energy Ohio, Inc., Duke Energy Indiana, Inc., Duke Energy Kentucky, Inc., and Duke Energy Carolinas, LLC.

¹⁷ Joint Supporters include Comverge, EnergyConnect, EnerNoc, ECS, Hess, and PJMICC.

¹⁸ GenOn and Edison Mission.

¹⁹ Pennsylvania OCA, Maryland OPC, Ohio CC, OPC District of Columbia, and New Jersey Division of Rate Counsel. The New Jersey Division of Rate Counsel did not intervene.

III. Procedural Matters

9. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure,²⁰ the timely, unopposed notices of intervention and motions to intervene serve to make the entities that filed them parties to this proceeding.

10. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure prohibits an answer to a protest unless otherwise ordered by the decisional authority.²¹ We will accept the answers of Joint Supporters, PJM, Viridity, Indicated RPM Suppliers, PSEG, and Joint Consumer Advocates because they have provided information that assisted us in our decision making process.

IV. Discussion

11. For the reasons discussed below, PJM's proposal is hereby accepted for filing, subject to conditions and except as otherwise noted below, to become effective, as requested, on February 1, 2011. PJM is required to make a compliance filing within 30 days of the date of this order, and an informational filing within 180 days of the date of this order,²² as discussed below.

A. Demand Resource Products and Minimum Requirements

1. PJM's Proposal

a. Proposed Demand Resource Products

12. PJM proposes to create Annual DR and Extended Summer DR alternative products. Annual DR is required to be available on any day of the year and for an unlimited number of interruptions during the year.²³ Annual DR would have limits on the hours of the day when it must be available,²⁴ and a ten hour cap on the duration of required interruption. Annual DR is otherwise required to be available every day of the

²⁰ 18 C.F.R. § 385.214 (2010).

²¹ 18 C.F.R. § 385.213(a)(2) (2010).

²² We note that this report is for informational purposes only and will neither be noticed, nor require Commission action.

²³ PJM Filing at 22.

²⁴ For the May through October period, from 10:00 a.m. to 10:00 p.m., and for the November through April period, from 6:00 a.m. to 9:00 p.m.

year, while permitting maintenance outages of any underlying equipment that are approved in advance by PJM, similar to the requirements for generation resources' maintenance outages.²⁵

13. Extended Summer DR is required to be available on any day from May through October.²⁶ The hours of the day that it is required to respond to a call for interruption are expanded, relative to Limited DR, from 10:00 a.m. to 10:00 p.m., and the maximum duration of interruption is increased to ten hours from six.²⁷

14. Given that, if approved, there will now be three demand resource products, PJM proposes that market sellers be required to specify which resource type they are using as the basis of an offer (or buy bid) in the RPM auctions. Demand resource providers with a resource that can qualify under more than one of the three demand resource product types would be able to submit linked alternative offers for their resource as Limited DR, Extended Summer DR, or Annual DR.²⁸

b. Minimum Resource Requirements

15. PJM states that in order for the RPM auctions to resolve the operational constraints associated with the current Limited DR product, it needs to set targets in those auctions for the different types of resources it needs to commit. Thus, PJM proposes a Minimum Annual Resource Requirement and a Minimum Extended Summer Resource Requirement. These minimum requirements will be determined for both the PJM region as a whole and for the three Locational Deliverability Areas (LDA).²⁹ As prescribed in the proposed Tariff changes, 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 LDAs. It is calculated by subtracting the short-term resource procurement target³⁰ and the Extended Summer DR Target from the PJM region reliability

²⁵ *Id.*.

²⁶ *Id.* at 23.

²⁷ *Id.*

²⁸ *Id.* at 31.

²⁹ Those LDAs are the Mid-Atlantic Area Council (MAAC), Eastern MAAC, and Southwest MAAC.

³⁰ 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
(continued)

requirement.³¹ 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. It is calculated by subtracting the short-term resource procurement target and Limited DR Target from the PJM region reliability requirement. PJM's Tariff filing states that it will calculate the Extended Summer DR and Limited DR Targets³² 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."

16. PJM's auction clearing process will select annual resources (generation, Annual DR and energy efficiency) or Extended Summer DR out of merit order if needed to procure the minimum quantities, similar to the way in which RPM auctions today can select resources out of merit order to address locational constraints. In those cases, resources selected to meet the necessary minimums will receive an adder to the base RPM price. PJM has included proposed definitions for an Annual Resource Price Adder and an Extended Summer Resource Price Adder. The Annual Resource Price Adder is applicable to annual resources only, while the Extended Summer Resource Price Adder is applicable to annual resources and Extended Summer DR. The zonal capacity price paid

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) (March 26, 2009 Order). The 2.5 percent is allocated between the first, second, and third incremental auctions at 0.5 percent, 0.5 percent, and 1.5 percent, respectively. *See PJM Interconnection, L.L.C.*, 129 FERC ¶ 61,090, at P 49 (2009).

³¹ According to PJM, its region reliability requirement is the target level of capacity to be procured for the region in the RPM auctions, based on the expected peak load, the approved installed reserve margin, and an adjustment for the generator forced outage rate expected for the region. *See PJM Tariff*, Attachment DD at section 2.55.

³² The Extended Summer and Limited DR Targets are used only for purposes of calculating the Minimum Annual and Minimum Extended Summer Resource Requirements. The amount of Limited DR and Extended Summer DR capacity that is actually procured in the capacity auctions may exceed the applicable targets once the two minimum requirements are met. Meeting the two minimum requirements, while concurrently purchasing Limited DR and/or Extended Summer DR above the targets, may occur if the total amount of resources procured in the auctions exceeds the reliability requirement.

by loads will be adjusted to reflect any price adders paid to annual resources or Extended Summer DR in the LDA where the zone is located. According to PJM, this will ensure that enough capacity is committed, and will send a price signal to encourage the development of less-limited resources.

2. Comments and Protests

17. Several stakeholders agree that PJM has raised a concern with current demand resource product limitations.³³ AES states that it agrees with PJM that the current product definition is no longer adequate, and that this issue should be addressed expeditiously prior to the next capacity auction, scheduled to occur in May 2011.³⁴ Indeed, states Constellation, with demand resource providers finding a substantial source of revenue in the capacity market, it is reasonable to assume that the volume of these resources will continue to grow. P3 further agrees with the recommendations of PJM's analysis and encourages the Commission to adopt the thresholds for limited demand resource products.

18. Joint Consumer Advocates disagree that demand resource participation has increased in recent years and state instead that demand resources have stabilized at about six percent of peak load over the past four base residual auctions for delivery years 2010/2011 through 2013/2014.³⁵

19. According to Viridity, demand resources are already subject to requirements to respond beyond ten events, six hours, and from June to September.³⁶ Viridity explains that nothing in PJM's Tariff indicates that the Emergency Procedure Charge, which must be paid if a party does not comply with PJM's instructions during an emergency, becomes inapplicable beyond ten events, six hours, or outside of the June to September timeframe.³⁷ Viridity contends that PJM can and does call on emergency load management resources in such circumstances.

³³ PSEG Protest at 4; P3 Protest at 3; Indicated RPM Suppliers at 2; DP&L Comment at 2-3; AMP Comment at 5.

³⁴ AES Comments and Protest at 1.

³⁵ Joint Consumer Advocates Protest and Comment (citing Wilson Affidavit at 10 (citing PJM Filing at 7)).

³⁶ Viridity Protest at 9.

³⁷ *Id.* at 10.

20. Several parties filed comments in support of PJM's proposal to add annual and summer-only demand resource options.³⁸ Joint Supporters state that these options will provide system operators with greater flexibility to maintain system reliability and deliver greater efficiency benefits to customers.³⁹ AMP believes that the PJM proposal adds more options for demand resource providers and will improve PJM's emergency dispatch operations, thereby enhancing reliability.⁴⁰ AES believes that the Annual DR product attempts to meet the reliability goals of RPM.⁴¹

3. How the Proposal Works

21. Based on examples in PJM's filing, the following illustrates the Commission's analysis of the various ways the PJM RPM auction could clear resources under PJM's proposal to include three alternative DR products in the auction. We discuss three scenarios to show the ways in which the demand resource products could be procured out of merit order in the auction if needed to meet the minimum resource requirements.

22. The examples all assume that: (i) the region reliability requirement is 1000 MW; (ii) the Limited DR Target is 100 MW; (iii) the Extended Summer DR Target (which includes the combined targets for Extended Summer DR and Limited DR)⁴² is 200 MW; and (iv) the auction clears 1150 MW of resources in total (150 MW more than the reliability requirement). The examples have been simplified by ignoring possible locational constraints and the short-term resource procurement target of 2.5 percent. As a result, the Minimum Annual Resource Requirement is the difference between the reliability requirement and the Extended Summer DR Target, i.e., 800 MW in these examples. In addition, the Minimum Extended Summer Resource Requirement is the difference between the reliability requirement and the Limited DR Target, i.e., 900 MW in these examples.

³⁸ Joint Supporters Comment at 2; AMP Comment at 5; Joint Supporters Comment at 2; Maryland Commission Comment at 1; Joint Consumer Advocates Protest and Comment at 6.

³⁹ Joint Supporters Comment at 6.

⁴⁰ AMP Comment at 5.

⁴¹ AES Comment and Protest at 3.

⁴² Our examples here are based on the method of calculating the Extended Summer DR Target as described in Mr. Falin's affidavit. *See* PJM Filing, Falin Affidavit at P 15.

23. In the capacity auction, the total amount of capacity procured will be at the point where the demand curve intersects the total supply curve. This total supply curve includes all offers from annual resources (generation, Annual DR, and energy efficiency), Limited DR resources, and Extended Summer DR resources.

24. In the following example, we demonstrate a hypothetical scenario where resources do not need to be procured out of economic merit order to meet the minimum resource requirements. To find whether the minimum requirements were met, PJM will first check to see how many annual and Extended Summer DR resources are included in the 1150 MW that cleared the auction. If the amount of cleared annual resources equals or exceeds the Minimum Annual Resource Requirement (which is 800 MW) and the combined amount of annual and Extended Summer DR resources equals or exceeds the Minimum Extended Summer Resource Requirement (which is 900 MW), then the auction would be concluded and all cleared resources would receive a clearing price of \$120, for example. Within this scenario, the amount of Limited DR and Extended Summer DR resources that clear could be more or less than the Limited DR Target and Extended Summer DR Target, depending on their price offers. Therefore, under a scenario where the minimum requirements are satisfied without further adjustment to the level of resources procured, PJM's proposal would allow all resources offering at or below the clearing price to be selected. Here, since the minimum requirements are satisfied, PJM's proposal would not preferentially select any resource type over another; the amount that clears will be consistent with the clearing price of these resources in comparison to other resource types.

25. In a second example where annual resources are procured out of economic merit order to meet the Minimum Annual Resource Requirement in the auction, annual resources will receive a higher price than the other two resource types in accordance with PJM's need for annual resources that are more broadly available. In this example, the same amount of total resources clears the market as in the previous example, i.e., 1150 MW. However, the amount of cleared annual resources is only 780 MW, which is 20 MW less than the minimum requirement of 800 MW. The remainder of the cleared resources – 370 MW – would be comprised of 170 MW of Extended Summer DR and 200 MW of Limited DR. In this case, PJM would make adjustments to the initial auction results. To reach the Minimum Annual Resource Requirement, PJM would add from the supply stack an additional 20 MW of annual resources to the total amount procured, taking the lowest offers remaining. If the highest offer from among these 20 MW is \$200, PJM would then increase the price paid to all annual resources to \$200. PJM would also subtract 20 MW from the initially selected Extended Summer DR *or* Limited

DR resources with the highest offers.⁴³ If the highest offer from among the remaining Extended Summer DR resources and Limited DR resources is \$110, PJM would reduce the price paid to all Extended Summer DR and Limited DR resources to \$110.

26. A third example demonstrates how PJM's proposal could allow for a maximum of two constraints when both annual resources and Extended Summer DR are procured out of economic merit order to meet the Minimum Annual Resource Requirement and the Minimum Extended Summer Resource Requirement. Here, prices would be associated with each resource type's level of availability such that annual resources would be valued higher than Extended Summer DR resources, which would be valued higher than Limited DR resources. This example uses the assumptions outlined earlier, but also assumes that: (i) the amount of cleared annual resources is only 780 MW, which is 20 MW less than the 800 MW Minimum Annual Resource Requirement; and (ii) the amount of cleared Extended Summer DR resources and annual resources, collectively, is only 860 MW, which is 40 MW less than the 900 MW Minimum Extended Summer Resource Requirement. In this situation, PJM would need to make adjustments to the initial auction results to satisfy the minimum requirements. Specifically, PJM would add from the supply stack an additional 40 MW of annual resources and/or Extended Summer DR resources to the total amount procured, so that the total amount of annual and Extended Summer DR resources meets the 900 MW Minimum Extended Summer Resource Requirement. At least 20 MW of the additional resources must be annual resources, in order to satisfy the 800 MW Minimum Annual Resource Requirement. If the highest offers came in as follows: 25 MW at \$200 for annual resources; and 15 MW at \$150 for Extended Summer DR, then PJM would increase the price paid to all annual resources to \$200 and to all Extended Summer DR resources to \$150. PJM would also subtract from the initially selected capacity the 40 MW of Limited DR resources with the highest offers. If the highest offer from among the remaining Limited DR resources is \$100, then PJM would reduce the price paid to all Limited DR offers to \$100.

4. Commission Determination

a. PJM's Proposal Establishing Additional DR Products

27. We accept PJM's proposal to establish Annual DR and Extended Summer DR products. PJM has proposed to add additional demand resource products that reflect the ability of certain resources to provide expanded response capabilities and to establish just

⁴³ If PJM needed to deduct more than 20 MW from among the various categories of limited resources, PJM would not deduct more than 70 MW of Extended Summer DR resources, in order to ensure that the Minimum Extended Summer Resource Requirement of 900 MW is honored.

and reasonable prices for these resources. 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.

28. While some demand resources can participate only in limited hours, PJM's proposal recognizes that other demand resources are able to participate for longer periods. For example, the Extended Summer DR program meets the needs of direct load control customers. Providers can choose which of these various options are most attractive. For instance, even if certain demand resources are available only for limited periods, an aggregator could combine those resources to produce an annual resource bid eligible for higher prices.

29. Under PJM's proposal, it will establish minimum requirements for the amount of annual resources and the combination of annual and Extended Summer DR resources that reflect the superior availability of these resources. As long as the auction produces more than these minimum requirements, all resources accepted in the auction, including demand resources, are treated identically and are paid the same price. However, if one or both of the minimum requirements are not met, PJM will procure sufficiently more from either annual resources (i.e., generation, Annual DR and energy efficiency) or Extended Summer DR resources so as to satisfy the minimum requirements, while procuring less of the other resources. In this latter case, PJM will pay a higher price to the categories of resources of which it procures more, and it will pay a lower price to the limited resources of which it procures less.

30. The examples above show that PJM's proposal prices the demand resource products in accordance with their availability. When a sufficient amount of annual resources and Extended Summer DR resources are committed in the auction and no binding constraints are triggered, all resources receive the same clearing prices, as no resource types are needed in preference to others. Alternatively, when additional quantities of the less-limited demand resources are required to meet the minimum resource requirements, prices can separate according to a resource's availability and overall contribution to system operations. When both minimum resource requirements trigger binding constraints, prices are associated with each resource type's availability.

b. Objections to Limited DR Products

31. Several commenters requested either changes to, or elimination of, PJM's current Limited DR product. Some stakeholders also believe that PJM should phase out the Limited DR product after PJM has some experience with the new demand resource products. Some intervenors believe that PJM's proposed multi-product solution should then be replaced with a single-product solution. P3 states that demand resources that do not offer an annual product may not provide equivalent reliability benefits and may

distort market outcomes. It also states that procuring lower quality demand resources will suppress prices needed to support high quality resources. P3 requests that PJM explain how consumers are better off with a resource mix that consists of less flexible and reliable contributions and no obligation to participate in the energy market. Indicated RPM Suppliers argue that the Extended Summer DR product should be rejected, as it provides inferior reliability benefits. PSEG states that PJM's proposal includes two separate types of "summer only" resources whose operating characteristics are inferior to the reliability services provided by generating units. The IMM asserts that PJM does not explain why participants qualifying under the Extended Summer DR product would not qualify as Annual DR.⁴⁴ Commenters also state there is a need to be able to aggregate Limited DR resources or to make composite bids to create an Annual DR offering.

32. Given that PJM has filed its proposal under section 205 of the Federal Power Act (FPA) to add new DR products, but does not propose to alter or eliminate its existing Limited DR product, we reject the arguments to eliminate or change PJM's current Limited DR product as outside of the scope of the proceeding. As PJM notes in its answer, its filing did not maintain that the current demand resource product was unjust and unreasonable, just that it must not place over-reliance on this product, given the limits on when it is required to respond. We agree that PJM has sufficiently addressed its concerns by proposing alternative products, and providing compensation for the Limited DR product commensurate with its value. Further, as previously noted, Limited DR resources may be aggregated to create an Annual DR product.

33. We disagree with Viridity that the Emergency Procedure Charge implies that Limited DR resources must respond beyond the obligations of the Limited DR product (i.e., beyond ten events, six hours, or outside of the June to September timeframe). We find that, although PJM can request emergency demand resources to respond during emergency events, these resources are not required to respond if they have already satisfied their obligations.

34. While Extended Summer DR is not an annual product, it has greater obligations relative to Limited DR. By establishing Extended Summer DR and Annual DR products, PJM is increasing the options for demand resources that reflect the ability of these

⁴⁴ The IMM states that demand resource customers could use a firm service level approach because if load levels are at the firm service level outside the summer period, then the customer is compliant even though no affirmative action is required. In PJM, a firm service level demand resource is load management achieved by a customer reducing its load to a pre-determined level (the firm service level) upon notification from the provider's market operations center or its agent. See PJM Tariff, Attachment DD-1 at section H.

resources to respond. Extended Summer DR can receive higher prices than the Limited DR product because it provides more capacity over a longer time. Similarly, Annual DR can receive higher prices because it will be available to PJM for an entire year. Further, PJM's proposal does not prohibit participants that could potentially qualify for the Extended Summer DR product from enrolling as firm service level resources and qualifying as Annual DR.

35. While aggregators can offer composite Limited DR bids to create an Annual DR product, such facility would not require the elimination of the Limited DR product even if this issue were not beyond the scope of this filing. The Limited DR product, like the Extended Summer DR program provides additional options with appropriate pricing for customers that can satisfy these requirements.

36. Several protesters state that PJM's proposal is not just and reasonable because it fails to provide comparable treatment to generation and demand resources. P3 explains that generators are only eligible for one capacity product class, with more onerous obligations, yet are paid equivalent to all other types of resources unless a saturation point is reached.

37. We reject these arguments. PJM's current capacity construct provides the same price to the Limited DR product as it does to generators. However, this proposal reduces potential compensation as the requirements to respond are reduced.

38. AES and PSEG state that, similar to generation, demand resources should be obligated to offer into the day-ahead energy market. To assure comparability, Constellation and AES request the Commission to direct PJM to permit generation resources to qualify in the limited product categories as well. We find that these issues are beyond the scope of the proceeding.

39. We reject Indicated RPM Suppliers arguments that demand resource providers are given incentives to withhold capability from the RPM market by offering the lowest-quality demand resource product to PJM that they believe will not be constrained, even if they can provide greater flexibility. Similarly, we reject PSEG's recommendation that PJM should create incentives for demand resources to operate as Annual DR when possible. We find that PJM's proposal provides appropriate incentives for demand resource suppliers to offer the products that will receive the greatest compensation, i.e., those with the greatest availability. Further, the application of price adders to less-limited resource types will be dependent on parameters specific to each RPM auction, such as the quantity of each resource type submitted into the auction, the offer prices of the resources, and the minimum resource requirements.

c. Limits on the Annual DR Product

40. The IMM and Indicated RPM Suppliers state that Annual DR should not have limits on the hours of the day when it must be available. We disagree. PJM has set the hour limits for Annual DR from 10:00 a.m. to 10:00 p.m. for May through October for up to ten hours per interruption. By comparing the load management event history in PJM since the 2000/2001 delivery year, where the event times range from 12:00 p.m. to 8:00 p.m.,⁴⁵ we find that PJM has set the limits appropriately to encompass the times in which load management resources are needed in PJM. Further, the ten-hour duration limit adopted for Annual DR is taken directly from PJM's analysis of the duration limit, which found that increasing the duration from six hours to ten would effectively resolve PJM's concerns with the current demand resource product's duration limit.

d. Objections That the Proposal Is Unnecessary or Too Broad

41. Several commenters maintain that PJM has no need to implement this proposal. Joint Consumer Advocates disagree that demand resource participation has increased in PJM in recent years. Steel Producers state that PJM has presented no evidence that shows the new proposed products will attract demand resource participation. Constellation and the IMM assert that PJM's proposed multi-product solution involves a complex clearing structure that diminishes risk management opportunities and results in greater market opacity to the detriment of market efficiency. Joint Consumer Advocates also assert that PJM's proposal establishes fixed minimum resource requirements that are met without regard to price or cost, which effectively imposes a vertical demand curve, inconsistent with the downward-sloping VRR curve used in RPM. According to the Illinois Commission, the PJM proposal is unjust and unreasonable because it will result in excessive costs to consumers. Rockland requests a supplemental filing from PJM addressing the price impacts of its demand resources proposal, including the feasibility of a "circuit-breaker" mechanism, e.g., limiting the price increase that can occur due to product separation. To the extent price separation occurs between the products, Steel Producers believe that PJM's proposal will result in lower compensation for Limited DR, thereby chilling participation by demand resources that have been a great benefit to the PJM system. We disagree. We believe PJM's proposal will ensure that enough capacity is committed to meet the area's needs, and also send a price signal to encourage the development of less-limited resources.

⁴⁵ PJM Load Management Performance Report 2010/2011 at 12, <http://www.pjm.com/~media/markets-ops/dsr/load-management-performance-report-2010-2011.ashx>.

42. The Illinois Commission argues that the Minimum Annual Resource Requirement and Minimum Extended Summer Resource Requirement should be implemented in the incremental auctions rather than the base residual auction. However, we agree with PJM that the Illinois Commission's suggested approach presents an unacceptably high risk that PJM would not procure the required minimum amount of resources needed to avoid calling on DR resources when they are not obligated to respond. In addition, PJM has already deferred 2.5 percent of the minimum resource requirements' recovery to the incremental auctions.

43. PSEG believes 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. PSEG states that PJM's *post hoc* compliance structure for measuring demand resource performance exposes PJM to reliability risk by allowing demand resource suppliers to bid planned demand resources without meeting any meaningful advance certification standards. PSEG states that demand resource suppliers will not be able to model the number of expected calls prior to bidding into the base residual auction because the frequency of calls is a function of the demand resource levels cleared in the auction. PSEG submits that this uncertainty interjects unacceptable risk and thus the unlimited products should not be introduced at this time. PSEG believes that PJM's compliance requirements create an incentive for demand resource suppliers to bid a large number of MWs in the base residual auction and then rely on significant quantities of planned demand resources. Without standards, states PSEG, demand resource providers will tend to underestimate their obligations and overestimate their capabilities. PSEG states that planned demand resources should be subject to *ex ante* verification and/or milestones to provide reasonable assurance they will be available as capacity resources in the year they are committed.

44. We find that PSEG's protest does not relate to the substance of PJM's proposal, but rather to existing standards for demand resource compliance, and is beyond the scope of this proceeding.

45. Nonetheless, we note that PJM already has measures in place to mitigate against demand resources overbidding their true capability. Prior to the first day of the delivery year, PJM reviews the nominated demand resource values that are submitted by demand resource suppliers as sell offers to verify the amount of load management available. This review is based on documentation of customer-specific data and demand resource information, such as the contract firm service level or guaranteed load drop values and number of participants.⁴⁶ Further, entities offering "any Planned Demand Resource must demonstrate, in accordance with standards and procedures set forth in the PJM Manuals,

⁴⁶ PJM Tariff, Attachment DD-1 at section K.

that such resource shall have 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. Providers of Planned Demand Resources must provide a timeline including the milestones, which demonstrates to PJM's satisfaction that the Planned Demand Resources will be available for the start of the Delivery Year, 15 business days prior to a Base Residual Auction or Incremental Auction. PJM may verify the Provider's adherence to the timetable at any time."⁴⁷

46. However, if demand resources will not be available at the capacity level committed in an RPM auction due to, *inter alia*, a decrease in the nominated demand resource value of a planned demand resource, then PJM's proposal also outlines the manner in which participants with committed capacity resources can submit buy bids in an incremental auction for replacement capacity resources.⁴⁸ PJM's filing also proposes that a capacity resource deficiency charge shall be assessed to any capacity market seller that commits a planned demand resource or existing demand resource if that resource is "unable or unavailable to deliver Unforced Capacity for all or any part of [a] Delivery Year... and [] does not obtain replacement Unforced Capacity meeting the same locational requirements and the same or better temporal availability characteristics."⁴⁹ In its filing, PJM has also proposed adequate compliance penalty charges to assure that resources are available in the delivery year in accordance with the specific resource type that was committed in the RPM auction. In addition, PJM's proposal establishes minimum requirements that assure PJM a sufficient amount of annual resources to meet operational concerns. However, if the frequency of calls should increase relative to historical events, we would expect PJM to initiate stakeholder discussions on this issue.

47. Steel Producers argue that PJM's proposal provides no details on how the two unlimited demand resource products will be dispatched in the energy market relative to Limited DR. Specifically, Steel Producers state that PJM has not made clear whether it intends to dispatch the Annual DR product prior to dispatching similarly priced traditional demand response or vice versa. According to Steel Producers, this information is critical to those demand resources that will be forced to decide which products to offer.

⁴⁷ PJM RAA, Schedule 6 at section A.8.

⁴⁸ PJM Tariff, Attachment DD at proposed section 5.4(d) (Commitment of Replacement Capacity through Scheduled Incremental Auctions).

⁴⁹ PJM Tariff, Attachment DD at proposed section 8.1 (Capacity Resource Deficiency Charge)

48. PJM has proposed no change to the method by which it will dispatch all resources. However, we will accept the filing conditioned on PJM explaining in its 30-day compliance filing how its dispatch methods will apply to the various categories of demand resources.

e. Miscellaneous Issues

i. Updates

49. Joint Consumer Advocates request that the PJM proposed Tariff language in section 5.12(b)(iv)(i) of Attachment DD of PJM's Tariff be changed to clarify that the latest DR Targets should be used to determine the "updated Minimum Annual Resource Requirement" and "updated Minimum Summer Extended Resource Requirement" for incremental auctions. We agree that updates to the targets could occur between the base residual and incremental auctions and that PJM's Tariff should clarify that these updated targets will be used to determine the updated minimum resource requirements. Accordingly, we require PJM to revise section 5.12(b)(iv)(i) as part of its 30-day compliance filing to reflect the fact that the minimum resources requirements will be based on the most recent DR Targets. Further, it appears that there is a typographical error in the enumeration of section 5.12(b)(iv)(i), as it is inconsistent with the enumeration of other sections of PJM's Tariff (e.g. proposed section 5.12(b)(vii)(A)). Accordingly, we require PJM to replace the numeration of section 5.12(b)(iv)(i) with section 5.12(b)(iv)(A) in its 30-day compliance filing. We also require PJM to revise section 5.10(c) in its 30-day compliance filing, as requested in the Joint Consumer Advocates' affidavit, to clarify that the minimum resource requirements will also be established prior to each incremental auction. This clarification is consistent both with PJM's proposal in section 5.10(c) to establish minimum requirements prior to the base residual auction and with section 5.10(e) to establish updated load forecasts prior to the incremental auctions. However, we disagree with Joint Consumer Advocates that section 5.4(c) should be changed to acknowledge that the reliability requirements and minimum resource requirements can change for incremental auctions, as this change is already memorialized in section 5.12(b)(iv)(i), which is based on updates triggered under the various subsections of section 5.4(c).

ii. Credit Requirements

50. ClearChoice states that PJM should redefine the credit requirements for all demand resource products envisioned. Given that the Limited DR product will be limited by use and fungibility as a replacement resource, ClearChoice believes that the credit requirements for Limited DR should be less than for other planned demand resource products and generation resources. We find that these comments are outside the scope of this proceeding since PJM has not proposed to alter the credit requirements in its proposal.

iii. Simultaneous Offers

51. We reject PSEG's comment that demand resource suppliers should not be allowed to simultaneously offer demand resources in multiple product categories. As PJM explains, if the system does not need the less-limited product, the auction will clear the demand resource capability at the lower price, and consumers will pay no more than is needed to satisfy reliability.

iv. Procurement Over the Minimum Resource Requirement

52. PSEG asserts that PJM has failed to justify its proposal to allow for the entirety of the capacity procured above the Minimum Annual Resource Requirement to consist of Extended Summer DR and Limited DR. We reject this argument because PJM's proposal does not attempt to limit the procurement of resources above the reliability requirements to any particular subset of resources.

v. 2.5 Percent Holdback for Short-Lead Time Resources

53. PSEG states that deferring the 2.5 percent of the reliability requirement imposes undue risks on consumers, especially by putting off the procurement of 1.5 percent of the unlimited resources until the third incremental auction. We reject this argument and find that the 2.5 percent holdback is consistent with the current just and reasonable Tariff.

54. We reject PSEG's statement that PJM's proposal restricts the participation of certain short lead-time resources since the bulk of those resources procured in the incremental auctions may have to be annual resources. We find that the procurement of annual resources in the incremental auctions is not in conflict with the definition of short lead-time resources according to the March 26, 2009 Order. As defined in the March 26, 2009 Order, short lead-time resources can include demand response and energy efficiency resources, upgrades to existing generation units, and imports of capacity from areas outside of PJM.⁵⁰ Under its proposal, PJM will seek to procure the minimum resource requirements for both Extended Summer DR and annual resources, the latter of which includes generation, Annual DR and energy efficiency. Accordingly, we find that there is nothing to preclude short lead-time resources from participating in the incremental auctions.

⁵⁰ March 26, 2009 Order, 126 FERC ¶ 61,275 at n.42.

vi. Ambiguity in Tariff Definitions

55. We find some ambiguity in PJM's Tariff provisions. PJM proposes to define in its Tariff the Minimum Annual Resource Requirement as "equal to the RTO Reliability Requirement minus [the Short-Term Resource Procurement Target for the PJM Region in Unforced Capacity] minus [the Extended Summer Demand Resource Reliability Target for the RTO in Unforced Capacity]." Further, PJM's proposed Tariff definition for the Extended Summer DR Target states that for the PJM Region or an LDA, this target "shall mean the maximum amount of Extended Summer Demand Resources in Unforced Capacity determined by PJM... that shall be used to calculate the Minimum Annual Resource Requirement." Based on the affidavit filed by Thomas Falin, it appears that PJM in fact proposes to incorporate the Limited DR Target as a subset of the Extended Summer DR Target.⁵¹ Neither the definition of Minimum Annual Resource Requirement nor the definition of Extended Summer DR Target reflects the inclusion of Limited DR resources. We therefore accept the filing conditioned on PJM clarifying in its Tariff how the Minimum Annual Resource Requirement is calculated in the 30-day compliance filing directed below.

B. Demand Resource Target Analysis

1. PJM's Proposal

56. In the December 2, 2010 Filing, PJM discusses its planned methodology for calculating the Limited DR and Extended Summer DR Targets (DR Reliability Target Analysis Procedures), which, according to PJM, will be placed in the PJM Manuals. Along with the short-term resource procurement target, the Limited and Extended Summer DR Targets will be subtracted from the PJM reliability requirement to establish the Minimum Extended Summer Resource Requirement and Minimum Annual Resource Requirement, respectively, that PJM will seek to procure in the RPM auctions. PJM states that it expects to continue to review the DR Reliability Target Analysis Procedures with its stakeholders and will incorporate them into the appropriate PJM Manual. PJM will apply the procedures in January 2011 to calculate the final parameters that will be posted on February 1, 2011 for use in the next base residual auction.

57. PJM bases the Limited DR Target on: (1) the level of Limited DR commitment at which there is a 90 percent probability of requiring ten or fewer demand resource interruptions; and (2) the level of Limited DR commitment that would effectively reduce

⁵¹ See PJM Filing, Falin Affidavit at P 15. Mr. Falin states that the Limited DR product is included in the determination of the Extended Summer DR target, but as the definition above shows, the tariff definition of the Extended Summer DR target does not reflect the inclusion of Limited DR.

the peak load, given the Limited DR's obligation to curtail for up to six hours per interruption. As both of these obligations are in effect simultaneously for Limited DR, the Limited DR Target is defined by whichever of these two limitations is more constraining, that is, whichever limitation is lower.

58. With regards to the six-hour interruption time, PJM explains that its analysis examines how many hours during a peak day it would need to call on demand resources in order to assure that its peak load is indeed reduced for that day, and not merely shifted to a time when demand resources are not deployed. According to PJM, demand resources are intended to shave or reduce the daily peak load, not to shift the peak to an hour outside the six-hour demand resource window. PJM explains that if the daily peak was shifted outside of the demand resource interruption window, then PJM's planning studies, which assume that the unrestricted PJM peak is reduced by the full amount of dispatched demand resources, would understate the actual load on a peak day, which could conceal reliability violations and therefore result in an unreliable system. Moreover, on the assumption that commitment of limited resources correspondingly reduces the commitment of annual resources, PJM explains that it may not have sufficient annual resources to call upon to balance load and supply during these new peaks, thus raising a significant reliability concern.

59. According to PJM, the Extended Summer DR Target models Extended Summer DR as a resource that is 100 percent available from May 1 through October 31 and unavailable from November 1 through April 30. To calculate the Extended Summer Target, PJM will vary the level of Extended Summer DR committed, correspondingly reduce the level of annual resources committed, and calculate the impact on the system loss of load expectation. PJM sets the Extended Summer DR Target at the point where the loss of load expectation increases by 10 percent from the inclusion of Extended Summer DR. In consultation with stakeholders, and consistent with the common use of a 10 percent statistical confidence level in probabilistic models, PJM concluded that a 10 percent increase in system loss of load expectation from inclusion of Extended Summer DR was an acceptable level of risk.⁵²

60. PJM states that its analyses rely on models, assumptions, and techniques that PJM also regularly uses for its transmission expansion and capacity planning efforts. PJM

⁵² PJM Filing at 27.

explains that the Commission has acknowledged that it relies on RTOs “to establish reasonable provisions for applying formulas, parameters, and assumptions to make such determinations” on planning matters.⁵³

61. PJM states that the proposed new rules on demand resource types, minimum resource requirements, and price adders will apply in three Locational Deliverability Areas (LDAs) (MAAC, Eastern MAAC, and Southwest MAAC) that typically are locational constrained by transmission in the RPM auctions or that have experienced a significant increase in demand resource commitments. PJM believes that the application of these rules in the LDAs will assure that resources of the type needed are available in constrained areas. PJM notes that these LDAs have been chosen because they have experienced significant growth in reliance on demand resources as internal capacity and are likely to experience price separation from their surrounding areas. According to PJM, to the extent changing circumstances or further analysis indicates that other LDAs experience similar growth in reliance on demand resources, it will review that issue with stakeholders and file, if necessary, to add such other LDAs to this list.⁵⁴

62. PJM asserts that when one of these areas separates in price, no more resources located outside that area (including no more of the two new types of demand resources) can be reliably delivered into that area to meet its capacity needs. To ensure reliability, that area needs not only enough in-area resources, it needs enough of the right type of resources, i.e., enough annual (or other less-limited) resources, states PJM. When one of these three LDAs price-separates in the auction, in-LDA resources may be compensated not only for their locational value, but also for their value in ensuring that PJM can call on the resources when needed.

63. PJM explains that the minimum resource requirements for these three LDAs will be calculated in essentially the same way as the minimum resource requirements for the region as a whole, with two notable exceptions: (1) the reliability requirement used will be that for the LDA, not that for the region; and (2) PJM will subtract the Capacity Emergency Transfer Limits from the LDA reliability requirement. According to PJM, the Capacity Emergency Transfer Limit quantifies the ability to deliver resources from *outside* the LDA into the LDA. Therefore, the focus of the calculation of the minimum

⁵³ *Id.* at 17, (citing *Md. Pub. Serv. Comm’n, et al., v. PJM Interconnection, L.L.C.*, 127 FERC ¶ 61,274, at P 40 (2009) (discussing determinations of Capacity Emergency Transfer Limits and Capacity Emergency Transfer Objectives)).

⁵⁴ *Id.* at 31.

resource requirements for the LDAs is the quantity of resources located *inside* the LDA that need to qualify as either annual resources or Extended Summer DR.⁵⁵

2. Protests and Comments

64. Joint Supporters state that PJM's determination of DR Target levels is a "practice affecting wholesale rates" and, consistent with the Commission's "rule of reason" standard,⁵⁶ must be filed as part of PJM's Tariff.⁵⁷ The Pennsylvania Commission explains that without this information in the Tariff, parties will not be able to evaluate whether PJM is setting the appropriate Limited DR Target and clearing prices.⁵⁸

65. Several parties request that PJM initiate a stakeholder process to consider alternatives and refinements to the DR Reliability Target Analysis Procedures.⁵⁹ According to the Joint Supporters and Joint Consumer Advocates, PJM's proposal to limit demand resources rests on overly conservative data and assumptions regarding demand resource participation and performance. Parties believe that PJM should consider a more efficient dispatching of existing DR resources because PJM's "call everything at once" approach to dispatching demand resources is not always necessary.⁶⁰ Joint Consumer Advocates assert that the assumptions that all demand resources responds in the same six hour time period, and that all demand resources is called whenever any is needed, is inconsistent with historical data and infeasible from an operational perspective. Deploying all demand resources at the beginning of an event will send a price signal that leads generation to back down significantly, at the same time that more resources are needed to address the event, states Viridity.⁶¹ Assuming a staggered dispatch that better

⁵⁵ *Id.*

⁵⁶ Joint Supporters Comment at 9-10 (citing *City of Cleveland v. FERC*, 773 F.2d at 1377 (D.C. Cir. 1985)).

⁵⁷ *Id.*, citing *Keyspan-Ravenswood v. FERC*, 474 F.3d at 810-11 (D.C. Cir. 2007) (requiring NYISO to include in its tariff the provisions that NYISO uses to calculate the installed reserve margin and reductions thereto, stating that such reductions "significantly affect" parties' compliance with reliability rules); *see also* Pennsylvania Commission Comment at 2, Maryland Commission Comment at 5.

⁵⁸ Pennsylvania Commission Comment at 6.

⁵⁹ Maryland Commission Comment at 5; Steel Producers Protest at 7.

⁶⁰ ClearChoice Comment at 2, and Viridity Protest at 3-4.

⁶¹ Viridity Protest at 3-4.

matches historical practice, according to Joint Consumer Advocates, increases the demand resource limit by 30 to 50 percent. Constellation explains that a more granular dispatch would ease the ten-day restriction because not all resources would need to be called for every event, and would ease the six-hour restriction because demand resources could be phased in over the course of several hours in order to better match the expected capacity shortfall. Parties reference a report demonstrating that flexing the assumptions to allow for a more efficient, staggered dispatch would raise the saturation level for Limited DR by as much as 50 to 100 percent.⁶² Joint Supporters assert that if Limited DR is constrained to a single 6-hour non-staggered dispatch as PJM has modeled and, is replaced by generation, the total cost of the resulting RPM cleared capacity could increase by as much as \$1 billion.⁶³

66. Joint Supporters assert that the Commission should also require PJM to engage in stakeholder discussions on an annual basis to explain and discuss any changes that may affect demand resource participation limits, but not subject such determinations to a stakeholder vote.⁶⁴

67. PSEG states that PJM has not supported its 90 percent confidence level used to determine the thresholds for Limited DR and Extended Summer DR.⁶⁵ By setting a 90 percent confidence level, PSEG states that PJM has added to the loss of load expectation and caused it to exceed the target. Joint Consumer Advocates states that PJM's procedure is inconsistent with its reserve requirements study and reliability standard BAL-50-RFC-02, which requires PJM to hold the loss of load expectation at 0.1, while the reserve margin changes.⁶⁶ By setting a 90 percent confidence level instead of 100 percent, PSEG states that PJM has significantly increased the saturation level for Extended Summer DR (6.5 to 10.6 percent) and Limited DR (3 to 4.7 percent).⁶⁷ PSEG states that PJM's justifications for using a 90 percent confidence level, namely that it poses an acceptable risk and that it is based on engineering judgment, is not in

⁶² *Id.* at 7, (citing CPower, "Demand Response Saturation," *available at* <http://www.pjm.com/~media/committeesgroups/committees/mic/20100722/20100722-item-07-cpower-dr-saturation-report.ashx>); Joint Supporters Comment at 12.

⁶³ Joint Supporters Comment at 12.

⁶⁴ *Id.* at 15.

⁶⁵ PSEG Protest at 22.

⁶⁶ Joint Consumer Advocates, Wilson Affidavit at 19.

⁶⁷ PSEG Protest at 23 (citing PJM Filing at 12, 16, and 28).

compliance with NERC standards, which obligate PJM to have a loss of load expectation of one day in ten years. PSEG states that PJM must either use a 100 percent confidence level or make compensating adjustments to the installed reserve margin.

68. PSEG states that the Commission should direct PJM to modify its proposal to model all LDAs for potential DR saturation regardless of size.⁶⁸ PSEG states that there is no justification for limiting the saturation analysis when RPM would allow any LDA to reach a binding constraint.⁶⁹ According to PSEG, saturation of demand resources could be a problem in smaller LDAs since PJM does rely upon demand resources to meet reliability needs for these areas. Further, states PSEG, certain smaller regions – such as PSEG North – have separated from the rest of PJM in past base residual auctions.

3. Commission Determination

a. Inclusion of DR Target Analysis Procedures in Tariff

69. Joint Supporters state that PJM's determination of demand resource product saturation levels is a "practice affecting wholesale rates" and, consistent with the Commission's "rule of reason" standard, must be filed as part of PJM's Tariff. We agree that PJM's Tariff needs to do more than merely refer to a methodology in the manuals. The methodology is a practice affecting rates that needs to be in PJM's Tariff. While many of the details of the calculations can be placed in the manual, the Tariff needs to set forth the method and inputs that PJM will use to determine the targets. Our acceptance of PJM's proposal is therefore conditioned on PJM filing revised Tariff provisions within 30 days of the date of this order to set the methodology for determining the targets. We address objections to the methodology below.

b. Efficient Dispatch of Demand Resources

70. All commenters recognize that at some point, the limited availability of some resources could result in PJM being unable to dispatch sufficient resources when necessary to balance its system. Various parties, however, object to certain aspects of the calculations.

71. Several commenters assert that PJM's assumption that all demand resources be dispatched at the beginning of a period is inefficient and leads to a lower target threshold than would be optimal. They contend that if PJM more efficiently dispatched demand resources, it would still retain sufficient demand resources to meet system needs.

⁶⁸ *Id.* at 7.

⁶⁹ *Id.* at 28.

72. We will accept PJM's proposed methodology because it reflects PJM's current dispatch procedures. We do not have sufficient evidence that the current dispatch procedures are unjust and unreasonable and such an inquiry is beyond the scope of this proceeding. However, in its filing, PJM states that it is considering more broadly how it could make its dispatch of demand resources more efficient. To the extent that dispatch can be made more efficient, it will redound to the benefit of all participants. We accept PJM's filing, subject to the condition that PJM submit an informational filing within 180 days to inform the Commission on the outcome of its discussions with stakeholders regarding the current demand resource dispatch procedures and related assumptions that PJM uses in its DR Reliability Target Analysis Procedures.⁷⁰

73. Joint Supporters assert that the Commission should require PJM to engage in stakeholder discussions on an annual basis to explain and discuss any changes that may affect demand resource participation limits. While we will not require PJM to engage in stakeholder discussions on an annual basis, we do recognize PJM's commitment to review the DR Reliability Target Analysis Procedures with stakeholders on an ongoing basis.⁷¹

c. Loss of Load Expectations

74. PSEG and Joint Consumer Advocates object to PJM's use of a 90 percent confidence level in setting the targets. PSEG argues that this will cause PJM to exceed a one in ten year loss of load expectation. We find that PJM's DR Target calculation methodology is consistent with PJM's prior use of 90 percent confidence intervals in determining the amount of capacity it must procure. The RAA commits PJM to establish an acceptable level of capacity resources consistent with the principles and standards established by NERC or an applicable regional reliability council.⁷² ReliabilityFirst Corporation, in BAL-502-RFC-02, has established a one day in ten year loss of load expectation.⁷³ In consultation with stakeholders, and consistent with the common use of a 10 percent statistical confidence level in probabilistic models, PJM concluded that a 10

⁷⁰ We note that this report is for informational purposes only and will neither be noticed, nor require Commission action.

⁷¹ PJM Answer at 19, 22.

⁷² See PJM RAA, Article 2 (Purpose); See also PJM RAA, Article 1 at section 1.75 (Reliability Principles and Standards).

⁷³ See Reliability Standards for the Bulk Electric Systems of North America, Standard BAL-502-RFC-02 available at http://www.nerc.com/files/Reliability_Standards_Complete_Set.pdf.

percent increase in system LOLE from inclusion of Extended Summer DR was an acceptable level of risk.⁷⁴ According to PJM, the use of confidence levels in probabilistic studies is a reasonable planning assumption that PJM is permitted to make under the relevant reliability standards of NERC and the Reliability *First* Corporation.⁷⁵ We will accept PJM's 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.⁷⁶

d. Exclusion of Other LDAs

75. We accept PJM's proposal to apply its proposed rules on demand resource types, minimum resource requirements, and price adders to LDAs that typically bind in the RPM auctions or that have experienced a significant increase in demand resource commitments, subject to conditions.

76. PSEG contends that the minimum resource requirement constraints may bind in other LDAs, such as PSEG North, that in the past have separated due to locational constraints. We agree with PSEG that the minimum resource requirement constraints may bind in other LDAs besides those proposed by PJM. Accordingly, we accept PJM's proposal, subject to the condition that PJM file Tariff revisions in its 30-day compliance filing to apply the DR Reliability Target Analysis Procedures and minimum resource requirements to all of the LDAs in PJM or to explain why such an application is not necessary.

C. RAA Schedule 8.1.G

77. PJM has incorrectly placed its proposed changes to RAA Schedule 8.1.F (Fixed Resource Requirement Alternative- FRR Daily Unforced Capacity Obligations and Deficiency Charges) in the tariff record for RAA Schedule 8.1.G (Fixed Resource Requirement Alternative- Capacity Resource Performance), thereby removing RAA Schedule 8.1.G language from the tariff. Accordingly, we accept PJM's proposed RAA Schedule 8.1.F, subject to PJM submitting in its 30-day compliance filing RAA Schedule 8.1.F under the correct tariff record. Further, to restore the correct tariff record for RAA Schedule 8.1.G, we require PJM to re-submit in its 30-day compliance filing the currently effective tariff language for this section of its tariff.

⁷⁴ PJM Filing at 27.

⁷⁵ PJM Answer at 24-25.

⁷⁶ We note that on October 21, 2010, the Commission issued a Notice of Proposed Rulemaking under Docket No. RM10-10-000 on its proposal to approve BAL-502-RFC-02.

The Commission orders:

(A) The Commission accepts PJM proposed Tariff and RAA revisions, effective February 1, 2011, as discussed in the body of this order.

(B) PJM is required to submit an informational filing within 180 days of the date of this order, as discussed in the body of this order.

(C) PJM is required to submit a compliance filing within 30 days of the date of this order, as discussed in the body of this order.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.

Document Content(s)

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