

146 FERC ¶ 61,052
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Acting Chairman;
Philip D. Moeller, John R. Norris,
and Tony Clark.

PJM Interconnection, L.L.C.

Docket No. ER14-504-000

ORDER ON PROPOSED TARIFF CHANGES

(Issued January 30, 2014)

1. On November 29, 2013, PJM Interconnection, L.L.C. (PJM), submitted revisions to the PJM Open Access Transmission Tariff (Tariff) and the Reliability Assurance Agreement Among Load Serving Entities in the PJM Region (RAA), pursuant to section 205 of the Federal Power Act (FPA).¹ PJM states that its proposed revisions are intended to correct for the unintended adverse market and reliability impacts of certain capacity market rule changes adopted by PJM in 2011, when PJM first introduced its existing menu of demand response product alternatives (a supplement to PJM's then-existing, limited-availability demand response product).²

2. PJM notes that the purpose of its 2011 rule changes was to accommodate demand response participation in PJM's capacity market auctions, while minimizing the risk that PJM might be required to call on a limited-availability demand response resource at a time when that resource would not be required to respond. PJM's 2011 rule changes therefore established a minimum procurement requirement for its highest availability capacity product, i.e., an Annual Resource, which PJM defined to include: (i) existing and planned generation capacity; (ii) energy efficiency resources; and/or (iii) a new demand response product fully available to PJM on a year-round basis.³ PJM also proposed to retain its then-existing limited-availability demand response product, i.e.,

¹ 16 U.S.C. § 824d (2006). Appendix A to this order lists the tariff sections filed by PJM.

² See *PJM Interconnection, L.L.C.*, 134 FERC ¶ 61,066 (January 2011 Order), *order on compliance filing and reh'*, 135 FERC ¶ 61,102 (2011) (April 2011 Order).

³ See RAA at section 1.1A.

Limited Demand Response,⁴ but proposed to add an additional less-limited demand response product known as Extended Summer Demand Response.⁵

3. These demand response resources are currently permitted to participate in PJM's capacity auction subject to procurement floors, as measured in relation to a system reliability requirement.⁶ PJM's procurement floors are represented by a Minimum Annual Resource Requirement (requiring PJM to procure 90 percent of its reliability requirement from Annual Resources), and a second floor, known as a Minimum Extended Summer Resource Requirement (requiring PJM to procure 96 percent of its reliability requirement from either Annual Resources or Extended Summer Demand Response).⁷

4. PJM asserts, however, that by ensuring the right of limited-availability demand response to participate in PJM's capacity market through the use of procurement floors on PJM's higher-availability products, auction clearing prices have been suppressed.

⁴ *Id.* at section 1.43A. Under this provision, PJM is permitted to call on Limited Demand Response from June through September, up to ten times and for six hours at a time. *Id.*

⁵ *Id.* at section 120C. Under this provision, PJM is permitted to call on Extended Summer Demand Response an unlimited number of times from May through October for ten hours at a time.

⁶ This reliability requirement represents the target level of reserves required to meet PJM's Reliability Standards and Principles and is represented in significant measure by PJM's Installed Reserve Margin. *See* PJM Manual 18 at section 2.4. This order, for convenience, refers to the Installed Reserve Margin as PJM's reliability requirement.

⁷ PJM's reliability requirement is currently set at 116 percent of the forecast peak load for the year. To meet this requirement PJM will first clear offers of Annual Resources in ascending order of cost, and will not procure any Extended Summer Demand Response or Limited Demand Response until it has procured enough Annual Resources to meet 90 percent of its reliability requirement. Thereafter, PJM will not procure any Limited Demand Response until it has procured enough Annual Resources and Extended Summer Demand Response to meet 96 percent of its reliability requirement; namely, PJM will clear offers of Extended Summer Demand Response and Annual Resources that have not yet cleared, in ascending order of costs, up to a minimum of 96 percent of PJM's reliability requirement. After this second floor has been met, PJM will then procure additional resources that have not cleared (from any product class), in ascending order of cost until the supply curve intersects with the demand curve.

PJM asserts that, as such, PJM's ability to procure the capacity it requires to assure reliability and promote market efficiency has been impeded.

5. In lieu of its existing procurement floors, then, PJM proposes to utilize the same data used to calculate the procurement floors, but to establish procurement caps on both of its existing limited-availability demand response products (as discussed more fully below). PJM also proposes a related adjustment relative to the operation of an existing rule, the Short-Term Resource Procurement Target, a provision which requires PJM to "hold back" 2.5 percent of its total reliability requirement from its Base Residual Auction for the purpose of procuring this capacity in PJM's incremental auctions (thus accommodating the participation from short lead time resources, including Limited Demand Response).⁸ Consistent with its proposed procurement caps, PJM proposes to subtract the 2.5 percent hold-back from the Limited Demand Response cap, and thus revise PJM's current practice of subtracting the hold-back from its reliability requirement. PJM requests that its proposed changes be made effective January 31, 2014.

6. For the reasons discussed below, we accept PJM's proposed tariff changes as just and reasonable, to become effective January 31, 2014, as requested.

I. Background

A. PJM's 2011 Tariff Revisions

7. Under PJM's existing capacity market rules, PJM conducts forward auctions to secure capacity for a future delivery year, with auction clearing prices intended to provide owners of existing and planned resources with the pricing information they require to guide their investment and retirement decisions.

8. PJM states that, under its 2011 rule changes, it retained its then-existing demand response⁹ capacity product, i.e., Limited Demand Response, but proposed to add two new, less limited types of demand response capacity products: Extended Summer Demand Response and a fully-available product designed to qualify as an Annual Resource (a resource that may also include existing and planned generation and energy

⁸ PJM *See* OATT at section 2.65A.

⁹ Demand response is the ability to reduce load, when required. Under PJM's capacity market rules, all demand response products are treated as emergency resources; these resources are only required to respond if called upon during a Maximum Generation Emergency. *See* PJM OATT at Attachment K-Appendix (Emergency Load Response Program).

efficiency resources). PJM's 2011 rule changes also included express reliability targets for the maximum quantity of Limited Demand Response and Extended Summer Demand Response that would be consistent with the maintenance of reliability.¹⁰

9. PJM states, however, that its 2011 rule changes did not cap Limited Demand Response or Extended Summer Demand Response. Rather, PJM's rule changes provided for the subtraction of these reliability target levels from PJM's overall reliability requirement for all resources. The result was then applied as the minimum requirement for the fully-available product, Annual Resources (covering 90 percent of PJM's reliability requirement), and a combination of Annual Resources and Extended Summer Demand Response (covering 96 percent of PJM's reliability requirement).

10. PJM's rule changes further provided that if the capacity auction is not clearing enough Annual Resources to satisfy this minimum requirement, prices would separate for the different products, and the auction would clear Annual Resources, as needed to meet the minimum requirement for this resource class.¹¹

11. PJM described the methodology for establishing its procurement floors in making its 2011 rule changes. In brief, PJM stated that it would conduct an empirical analysis to establish the percentages of each product category that would satisfy its reliability requirement of a one-day-in ten-years loss-of-load expectation, when the total amount of capacity procured meets PJM's reliability requirement. Thus, PJM justified its procurement floors on the basis that they would satisfy the 1-in-10 reliability standard. PJM argued, for example, that when the *total* amount of capacity procured *exceeded* PJM's reliability requirement, PJM could nevertheless *not* be assured that the 1-in-10 standard was met unless the amount of Annual Resources procured satisfied at least the 90 percent procurement floor.

12. PJM states that to establish its capacity market clearing prices, PJM's capacity auctions have relied on a Commission-approved sloped demand curve, which reflects the

¹⁰ See January 2011 Order, 134 FERC ¶ 61,066, at P 69; PJM OATT at Attachment DD, sections 2.24C and 2.36B; *see also PJM Interconnection, L.L.C.*, 143 FERC ¶ 61,076 (2013) (Demand Response Targets Order) (modifying the test used by PJM to set its reliability targets).

¹¹ Similarly, if not enough Extended Summer Demand Response and Annual Resources would clear to satisfy the other procurement floor, prices would separate, and the auction would clear as many of those resources as needed to meet the minimum requirement.

increasing value of capacity as reserve margins shrink, creates a stable investment environment, and lessens incentives for buyer-side market power, among other characteristics.¹² PJM argues that the Commission fully endorsed the benefits of the sloped demand curve when it approved PJM's capacity market protocols, in 2006.¹³

B. PJM's Justification for its Proposed Changes

13. PJM states, however, that certain of its 2011 capacity market rule changes have impaired the ability of its sloped demand curve to yield these positive benefits. PJM notes that, under its 2011 rule changes, PJM is required to determine each year the maximum amount that limited-availability demand response can be committed to PJM without impairing reliability. PJM states, however, that rather than using these reliability targets as a cap on limited-availability demand response participation, PJM's rule changes require PJM to subtract these values from PJM's overall capacity requirement and then set the resulting value as a floor as applicable to its superior, less-limited capacity products.

14. PJM states that by setting a minimum required MW level in each capacity auction for Annual Resources, and a separate minimum for the combination of Annual Resources and Extended Summer Demand Response, PJM's 2011 rule changes virtually guarantee that when Annual Resources are required to be paid a price premium in order to satisfy the minimum requirement, the auction algorithm will immediately turn to clearing the lower-availability products as soon as the minimum for the higher-availability products is met. PJM states that this occurs because the lower-availability demand response products, by definition, have a lower cost. PJM states that, as such, a price premium for Annual Resources indicates that the resulting price signal is being suppressed and that the algorithm is preferentially clearing lower-cost, limited-availability demand response between the vertical line at the minimum requirement for Annual Resources and the total cleared capacity quantity at the sloped demand curve.

15. PJM further states that the preference for limited-availability demand response is exacerbated by the fact that demand response providers can submit coupled offers for a single resource that can then qualify as two or more product types. PJM states that, under

¹² See PJM OATT at Attachment DD, section 5.10(a). The sloped demand curve is used by PJM to establish the level of capacity resources that will provide an acceptable level of reliability.

¹³ PJM filing at 4 (citing *PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,079, at PP 6, 104 (2006) (PJM Capacity Market Protocols Order)).

this scenario, the auction will automatically select the lower-priced, limited-availability aspect of the offer because satisfaction of the minimum requirement for higher-availability products frees it to seek out the lowest-price offers that remain.

16. PJM states that, given these auction operations, PJM's 2011 rule changes have inadvertently established a vertical demand curve at the point represented by the minimum requirement level for Annual Resources.¹⁴ PJM adds that this vertical demand curve can be evidenced every time Annual Resources receive a price premium, making it far less likely that Annual Resource offers will intersect with, and be valued by, the sloped demand curve. PJM states that this same result will arise every time Extended Summer Demand Response earns a price premium above Limited Demand Response. PJM notes that, in this case, a vertical demand curve arises at the minimum requirement for the combined amount of Extended Summer Demand Response and Annual Resources and makes it more difficult for both of these products to intersect with the sloped demand curve.

17. PJM states that even when no prices separate, every MW of limited-availability demand response that clears beyond PJM's reliability target for that product displaces a MW of Annual Resources, such that the eventual sloped-curve intersection point, and price signal, is not an Annual Resources price signal, but instead a price signal that depends on commitment of limited-availability demand response above the level that PJM has identified as meeting its reliability requirement. PJM asserts that its inadvertent reintroduction of a vertical demand curve will yield lower reliability at a higher cost.

C. Proposed Revisions

18. PJM proposes to change the process by which resources clear in PJM's capacity auction, such that limited-availability demand response will only be allowed to clear up to a predetermined ceiling. Specifically, PJM proposes to cap the amount of Limited

¹⁴ PJM asserts that when prices separate and Annual Resources are by definition more expensive than limited-availability demand response, satisfaction of PJM's minimum annual resources requirement means that the limited-availability demand response products will clear to the exclusion of the higher-priced Annual Resources. PJM argues that this will also occur when the minimum requirement for the combination of Annual Resources and Extended Summer Demand Response binds. PJM states that, in this case, the auction will clear the Extended Summer Demand Response and/or Annual Resources up to the minimum requirement, but then shift to the lower-priced Limited Demand Response, as required by PJM's minimum extended summer resource requirement. *See* PJM filing at 11 (PJM OATT at Attachment DD, section 2.41E).

Demand Response at 4 percent of PJM's reliability requirement and to cap the aggregate amount of Limited Demand Response and Extended Summer Demand Response at 10 percent of PJM's reliability requirement.¹⁵ PJM thus proposes to replace its existing procurement floors (the Minimum Annual Resources Requirement, as applicable to the first 90 percent of the capacity that PJM procures, and the Minimum Extended Summer Resource Requirement, as applicable to the next increment, up to 96 percent of the capacity that PJM procures).

19. PJM proposes to implement two procurement caps: first, a Limited Resource Constraint (which will apply to Limited Demand Response); and second, a Sub-Annual Resource Constraint (which will apply to the sum of Limited Demand Response and Extended Summer Demand Response). PJM states that both constraints will rely on PJM's existing reliability targets for Limited Demand Response and Extended Summer Demand Response, i.e., on the maximum amounts that can count towards PJM's reliability requirement with an acceptable level of risk,¹⁶ and otherwise minimize the reliability risks attributable to Limited Demand Response.¹⁷

20. PJM also proposes to make an adjustment relating to its currently-effective Short-Term Resource Procurement Target, the portion of PJM's overall reliability requirement (2.5 percent) that PJM is required to hold back from its annual Base Residual Auction to allow for the subsequent procurement of limited-availability demand response products in PJM's incremental auctions.¹⁸ Currently, PJM applies this hold-back by subtracting it from its overall reliability requirement (not from its two procurement floors). In its filing, PJM proposes to subtract the entirety of this hold-back from its Limited Demand Response cap.

¹⁵ These percentages are subject to change using the same empirical analysis PJM currently uses to determine the procurement floors.

¹⁶ PJM filing at 20 (citing January 2011 Order, 134 FERC ¶ 61,066 at P 74).

¹⁷ *Id.* (citing Demand Response Targets Order, 143 FERC ¶ 61,076 at P 34).

¹⁸ See PJM OATT at Attachment DD, section 2.65A and proposed section 2.36C. The rationale supporting PJM's hold-back requirement is the promotion of demand response participation, recognizing that demand response resources have a shorter development time than generation sources and that certain of these resources that may not be available as of the Base Residual Action may be available at the time that PJM runs its incremental auctions. See *PJM Interconnection, L.L.C.*, 126 FERC ¶ 61,275, at P 83 (2009).

21. PJM states that these changes will not affect the quantities of each capacity product that clears up to the level of PJM's reliability requirement. PJM asserts that the only change will be in which resources clear after the reliability requirement is met. PJM also states that Limited Demand Response will be permitted to compete with other resource types to provide capacity up to the constraints, and that limited-availability demand response can couple offers with other resources to bypass the Limited or Sub-Annual Resource Constraints. In addition, PJM points out that limited-availability demand response can be aggregated to create a portfolio of resources that can be offered into PJM's capacity auctions as Annual Resources.

22. Finally, PJM proposes conforming changes, including moving from "price adders" for Annual Resources and Extended Summer Demand Response to "price decrements" for Sub-Annual and Limited Resources. These changes are made in support of the "base" price being switched from the typically lower clearing price for limited-availability demand response to the typically higher clearing price for Annual Resources. PJM also proposes changes addressing the effects of its proposed resource constraints on PJM's Fixed Resource Requirement capacity plans.¹⁹

23. In support of its proposed tariff changes, PJM relies on a capacity market study that it commissioned (Capacity Study).²⁰ PJM states that its Capacity Study analyzed the effects of PJM's 2011 rule changes and found that these rule changes, by imposing a fixed Minimum Annual Resource Requirement, and facilitating a large quantity of lower-priced offers from limited-availability demand response, have produced a vertical demand curve for Annual Resources. As a result, PJM's Capacity Study argues that Annual Resources have lost the price stabilization, reliability, and consumer cost benefits of a sloped demand curve. PJM's Capacity Study concludes that, to restore these benefits, a sloped demand curve must be reintroduced.

II. Notice of Filing and Responsive Pleadings

24. Notice of PJM's filing was published in the *Federal Register*, 78 Fed. Reg. 40,230 (2013), with interventions, comments, or protests due on or before December 20, 2013. Notices of intervention and timely-filed motions to intervene were submitted by the

¹⁹ See proposed RAA at section D(2).

²⁰ See PJM filing at Attachment A (Affidavit of Professor Benjamin F. Hobbs).

entities noted in Appendix B to this order.²¹ On January 15, 2014, a late-filed motion to intervene was Comverge Inc. (Comverge)

25. Protests and/or comments were submitted by Monitoring Analytics, LLC, acting as PJM's independent market monitor (IMM); the Maryland Public Service Commission (Maryland Commission); the Pennsylvania Public Utility Commission (Pennsylvania Commission); the Public Utilities Commission of Ohio (Ohio Commission); the Delaware Public Service Commission (Delaware Commission); the North Carolina Utilities Commission and its Staff (North Carolina Commission); Exelon Corporation (Exelon); Old Dominion Electric Cooperative (ODEC); PSEG Companies (PSEG); NRG Companies (NRG); the PJM Power Providers Group (P3); American Electric Power Service Corporation²² (AEP, et al.); American Municipal Power, Inc. (AMP); the Joint Consumer Advocates²³ filing jointly with the Public Interest Organizations²⁴ (collectively, the Joint Consumer Advocates, et al.); Rockland Electric Company (Rockland); Nucor Corporation and Steel Dynamics (Steel Producers); PJM Industrial Customer Coalition²⁵ (Industrial Customer Coalition, et al.); and the American Natural Gas Alliance (Gas Alliance).

²¹ In addition, the abbreviated names and/or acronyms by which these entities are referred to in this order are also noted in the Appendix B.

²² AEP is joined by Dayton Power and Light Company, FirstEnergy Service Company, the PPL Companies, and Duke Energy Ohio, Inc.

²³ The Joint Consumer Advocates are comprised of the following entities: the Pennsylvania Office of Consumer Advocate, the Maryland Office of People's Counsel, the New Jersey Division of Rate Counsel, the Office of the Ohio Consumers' Counsel, the District of Columbia Office of People's Counsel, the Delaware Division of the Public Advocate, the Pennsylvania Office of Consumer Advocate, the Consumer Advocate Division of West Virginia, and the Citizens Utility Board of Illinois.

²⁴ Public Interest Organizations are comprised of the following entities: the Environmental Law Policy Center, Sierra Club, Pace Energy & Climate Center, the Sustainable FERC Project, National Audubon Society, and Union of Concerned Scientists.

²⁵ The Industrial Customer Coalition is joined by the Southern Maryland Electric Cooperative, Inc. (SMECO), the North Carolina Electric Membership Corporation, Pepco Holdings, Inc., and its affiliates, Potomac Electric Power Company, Delmarva Power & Light Company and Atlantic City Electric Company, Comverge, EnergyConnect/JCI, and EnerNOC, Inc. (EnerNOC).

26. Answers to protests and comments were submitted on January 6, 2014, by PJM, AEP, et al., the Maryland Commission, and P3, on January 8, 2014, by the IMM and the New Jersey Utilities Board, on January 14, 2014, by PJM, on January 21, 2014, by the Maryland Commission, and on January 22, 2014, by the Industrial Customer Coalition, et al. and PJM.

A. Comments Generally Supportive of PJM's Filing

27. Comments generally supportive of PJM's filing were filed by the IMM, P3, NRG, PSEG, Exelon, AEP, et al., the North Carolina Commission, the Ohio Commission, the Pennsylvania Commission, and the Gas Alliance.

28. The IMM asserts that procuring less Limited Demand Response reduces the reliability risk associated with a capacity resource that is only available for 60 hours each delivery year, as opposed to Annual Resources, which are available for every hour of the delivery year. The IMM argues that Limited Demand Response displaces Annual Resources. The IMM supports PJM's filing, because it will help mitigate the harmful impact on reliability and markets attributable to the continued availability of the limited-availability demand response products and their treatment as products comparable to Annual Resources. The IMM agrees with PJM that setting limits on the procurement of Annual Resources, under PJM's existing rules, has the effect of suppressing the final clearing price for all capacity resources.

29. The IMM also supports PJM's proposed revision to PJM's 2.5 percent hold-back requirement. The IMM argues that this rule change will help mitigate the negative impacts of PJM's existing hold-back requirement, which distorts the level of demand in PJM's Base Residual Auctions by arbitrarily reducing demand by 2.5 percent, and which is no longer necessary (given that a large amount of limited-availability demand response now clears in the Base Residual Auction). The IMM adds that PJM's existing hold-back requirement suppresses the Base Residual Auction clearing price, reducing the level of total revenues for capacity resources by billions of dollars below the efficient level.²⁶

30. AEP, et al. argue that PJM's proposal will appropriately restore the original design feature of PJM's capacity market, which was based on a downward-sloping demand curve for Annual Resources, the purpose of which was to reduce price volatility and increase the stability of the capacity revenue stream over time. AEP, et al. note that, by

²⁶ Specifically, the IMM notes that while total revenues for the 2015-2016 Base Residual Auction were \$9.7 billion, as based on actual auction clearing prices and quantities and make-whole MWs, this auction would have yielded revenues of \$12.4 billion, absent the application of PJM's existing hold-back requirement.

contrast, PJM's 2011 rule changes have inadvertently produced a vertical demand curve that, if not corrected, will have long-term adverse reliability consequences.

31. P3 generally supports PJM's filing as an appropriate correction of a market flaw, while also acknowledging that additional concerns regarding demand response participation in PJM's capacity market should be addressed in a subsequent proceeding and should consider, among other things, the transition to a single, fully-available demand response product.²⁷ P3 agrees that PJM's 2011 rule changes are leading to an over-procurement of limited-availability demand response products, which it characterizes as inferior from a reliability point of view, at the expense of Annual Resources, which it asserts are more reliable. P3 also agrees with PJM that PJM's 2011 rule changes effectively create a vertical demand curve for Annual Resources, thereby negating the benefits of a sloped demand curve.²⁸ P3 argues that while the Commission has not mandated the use of a downward-sloping demand curve in all markets, such a demand curve is undeniably a core component of PJM's capacity construct.

32. NRG agrees with PJM that it is appropriate for PJM's rules to recognize the reduced operational flexibility available from Limited Demand Response. NRG further agrees that PJM's rules should be revised, as proposed, to ensure that PJM's capacity auction is not preferentially procuring Limited Demand Response when Annual Resources or Extended Summer Demand Response is available. NRG adds that while changes proposed by PJM will produce lower prices for Limited Demand Response and Extended Summer Demand Response, these changes do not eliminate any of the existing demand response products and expressly maintain a curtailment service provider's ability to provide coupled, or linked, offers.

33. The Pennsylvania Commission agrees with PJM that, under PJM's 2011 rule changes, PJM's capacity auctions have cleared an increasing quantity of lower value, lower-priced Limited Demand Response at the expense of more reliable Annual Resources, including both traditional generation and fully-available demand response. The Pennsylvania Commission is further concerned that without rule changes proposed by PJM in its filing, both Limited Demand Response and Extended Summer Demand Response may be overvalued by PJM's capacity auction. The Ohio Commission and the North Carolina Commission agree, arguing that the inflated prices for limited-availability

²⁷ See also PSEG comments at 2; Ohio Commission comments at 7.

²⁸ See also NRG comments at 3; Exelon comments at 5; North Carolina Commission comments at 4; Gas Alliance comments at 4.

demand response will discourage the development of new resources and may cause generation resources to retire prematurely.

B. Protests

34. Protests to PJM filings were submitted by AMP, the Joint Consumer Advocates, et al., ODEC, the Delaware Commission, the Maryland Commission, Steel Producers, the Industrial Customer Coalition, et al., and Rockland.²⁹

35. Intervenors argue that PJM's filing offers insufficient evidence supporting PJM's proposed tariff changes. ODEC asserts that PJM has failed to demonstrate that the implementation of its proposed changes would produce an appropriate, cost-justified mix between PJM's capacity products, or improve reliability. The Delaware Commission argues that PJM's filing provides no quantification of costs versus benefits, while the Maryland Commission notes that the costs to end-users of capacity resources purchased in PJM's auction may rise by as much as \$1 billion per year,³⁰ based on PJM's own simulations. Rockland agrees, noting that PJM has not shown that the incremental reliability value of Limited Demand Response and Extended Summer Demand Response is so *de minimis* as to support PJM's proposed procurement caps and related costs.³¹ Steel Producers argue that, with these proposed procurement caps, capacity costs will increase significantly, while the ability of demand response resources to offset these costs in the capacity market will decrease.³²

²⁹ In addition, a limited protest argument was made by AEP, et al., arguing that PJM should be required to eliminate its 2.5 percent hold-back altogether, as established by PJM pursuant to its currently-effective Short-Term Resource Procurement Target. *See* PJM OATT at section 2.65A. Other intervenors make a similar argument as part of their comments generally supporting PJM's filing. *See* P3 comments 11; PSEG comment at 6; and IMM comments at 4.

³⁰ PJM's analysis projects this number at \$1.8 billion over two years. *See* PJM answer at 37.

³¹ *See also* Industrial Customer Coalition, et al. protest at 6 (arguing that PJM fails to provide any evidence or support for its claim that Limited Demand Response and Extended Summer Demand Response provide no value, once PJM's reliability target is met); Joint Consumer Advocates, et al. protest at 9.

³² Steel Producers note that if PJM's proposed changes had been in place for the 2016-2017 Base Residual Auction, Limited Demand Response would have cleared at a price more than 70 percent less than the price resulting under PJM's existing rules.

36. The Joint Consumer Advocates, et al. challenge PJM's assumption that a reliability concern has been raised in this case by the operation of PJM's 2011 rule changes. The Joint Consumer Advocates, et al. assert that, in fact, no such concern is presented, or will be encountered in the future, so long as PJM maintains its currently-effective procurement floor for Annual Resources. The Joint Consumer Advocates, et al. add that as long as this procurement floor is in place, there will continue to be enough annual capacity procured by PJM in its capacity auctions to reliably meet 100 percent of the need for this capacity going forward. The Joint Consumer Advocates, et al. argue, moreover, that use of the procurement floor for Annual Resources will ensure that sufficient Annual Resources will clear regardless of the presence of lower-priced bids from limited-availability demand response. The Joint Consumer Advocates, et al. conclude that, as such, the price for Annual Resources reflects the marginal cost procuring Annual Resources at a sufficient level.

37. The Industrial Customer Coalition, et al. argue that, contrary to PJM's assumptions, Limited Demand Response and Extended Summer Demand Response do have value as excess capacity resources, i.e., as resources that can be expected to add value when capacity is procured by PJM in excess of PJM's reliability requirement. The Industrial Customer Coalition, et al. note that during the mandatory performance period for Limited Demand Response (from June 1 through September 30), generation resources qualifying as Annual Resources have been permitted to shut down for maintenance and for other purposes. The Industrial Customer Coalition, et al. add that once PJM's reliability requirement is met, excess capacity should be procured based on price competition.

38. Intervenors also challenge PJM's assumption that a downward sloping demand curve is superior to a vertical demand curve. The Industrial Customer Coalition, et al. argue that while PJM identifies numerous asserted conceptual problems with a vertical demand curve, none of these asserted flaws have actually been experienced in relation to PJM's capacity market. The Industrial Customer Coalition, et al. also challenge PJM's suggestion that its 2011 rule changes have inadvertently produced a vertical demand curve.³³ AMP challenges PJM's suggestion that the Commission's policies and

³³ The Industrial Customer Coalition, et al. argue that PJM's annual clearing prices for 1999-2000 through 2016-2017 do not suggest the existence of a vertical demand curve, and that the clearing results for the 2014-2015 and 2016-2017 delivery years stand in stark contrast with the clearing results for the 1999-2007 period, when PJM was utilizing a vertical demand curve.

precedents require the use of a sloped demand curve, citing the adoption of a vertical demand curve as implemented by ISO New England.³⁴

39. The Joint Consumer Advocates, et al. also question the assumptions and conclusions embodied in PJM's Capacity Study.³⁵ Specifically, the Joint Consumer Advocates, et al. argue that the modeling analysis on which this study was based (and the resulting price volatility and boom-and-bust cycles it claims to identify) makes a number of unrealistic and/or inaccurate assumptions.³⁶

40. ODEC challenges PJM's conclusion that PJM's existing procurement floors have impaired the operation of PJM's sloped demand curve. ODEC argues, to the contrary, that the clearing price is, in fact, set using a sloped demand curve. ODEC asserts that a vertical demand curve is not created for any one resource just because that resource does not happen to touch the sloped demand curve in any given auction. ODEC further asserts that once PJM's reliability requirement is met, lower cost offers that provide a reliability benefit can and should displace out-of-merit higher cost resources, regardless of resource type.

41. Intervenors also challenge PJM's claim that PJM's existing auction clearing mechanism is producing improper price signals and may not be attracting sufficient new generation. Rockland notes that, in PJM's most recent Base Residual Auction, a record amount of new generation participated (including uprates and imports), with prices decreasing, notwithstanding a reduction in cleared demand response, from 14,833 MW for the 2015-2016 delivery year, to 12,408 MW for the 2016-2017 delivery year. Rockland adds that PJM's auction acquired enough capacity resources to yield a reserve margin of 21.1 percent, 5.5 percent above PJM's reliability requirement. The Delaware Commission points out that, in PJM's most recent reserve requirement study (covering an

³⁴ AMP protest at 3 (citing *Devon Power LLC*, 115 FERC ¶ 61,340 (2006)).

³⁵ See PJM filing at Attachment A (affidavit of Professor Hobbs).

³⁶ Joint Consumer Advocates, et al. protest at 20 (citing PJM's use of the following assumptions and/or inputs: (i) a vertical supply curve; (ii) the assumption that all new entry is identical, as represented by a combustion turbine unit using a single set of financial calculations to support its entry into the market; (iii) the assumption that all supply will be incurred in the Base Residual Auction, without any reliance on PJM's incremental auctions; and (iv) the use of a simplified auction structure, including only a single vertical product demand curve) referencing the James A. Wilson Affidavit filed with their protest.

11-year planning horizon), PJM found that its recommended reliability requirement would be exceeded in every year, up to 2023.

42. Intervenors also object to PJM's proposed cap on Extended Summer Demand Response. ODEC argues that this demand response product does, in fact, provide a reliability benefit when PJM's auction clears at a level above PJM's reliability requirement, as demonstrated by PJM's own loss-of-load expectation study.³⁷ ODEC notes that, based on this study (which assumed an auction clearance level at 1 percent above PJM's reliability requirement), Extended Summer Demand Response provided a 25 percent improvement in the loss-of-load expectation, from 0.11 to 0.082 days per year (Annual Resources, by contrast, provided a 32 percent decrease).³⁸ ODEC concludes that the reliability benefits attributable to Extended Summer Demand Response can be accrued at a significantly lower expected future cost to load, as compared to PJM's proposed emphasis on Annual Resources.

43. The Joint Consumer Advocates, et al. agrees that PJM has not justified switching to a cap on Extended Summer Demand Response, given that this product provides comparable benefits, *vis-a-vis* Annual Resources, when cleared in excess of PJM's reliability requirement.³⁹ The Joint Consumer Advocates, et al. argues that while it is not opposed to the establishment of a reasonable ceiling on Limited Demand Response for capacity that clears in this circumstance, there is no reliability basis for requiring that this excess capacity be exclusively met by Annual Resources.

44. Intervenors also characterize, as unjust and unreasonable, PJM's proposal to subtract its 2.5 percent Base Residual Auction hold-back from the Limited Demand Response cap. The Joint Consumer Advocates, et al. argues that there is no basis for

³⁷ ODEC protest at 6 (citing <http://pjm.com/~media/committees-group/task-force/cstf/20131016/20131016-item-04-limited-and-extended-summer-dr-targets.ashx>). *See also* Rockland protest at 4 (arguing that PJM's study demonstrates that the difference in incremental reliability, as between Annual Resources and Extended Summer Demand Response, is small and that the difference decreases as excess capacity increases).

³⁸ *See also* Delaware Commission comments at 4 (arguing that, under PJM's study, nearly all of the loss-of-load probability was identified to occur in months in which Annual Resources and Extended Summer Demand Response have a nearly equal reliability value); Joint Consumer Advocates, et al. protest at 13.

³⁹ Referencing the Affidavit of James A. Wilson attached to the Joint Consumer Advocates, *et al.* Protest.

applying 100 percent of the hold-back to a capacity resource such as Limited Demand Response, which provides only a small portion of PJM's overall reliability requirement (approximately 5 percent). ODEC asserts that PJM's proposal will remove approximately 30-40 percent of the potential limited-availability demand response from clearing at the point represented by the reliability requirement up to the demand curve. ODEC proposes, as a more balanced approach: (i) sharing the hold-back between limited-availability demand response (for the purpose of allowing more Limited Demand Response to clear in the Base Residual Auction and thereby reducing costs); and (ii) allowing Extended Summer Demand Response to compete with Annual Resources after the Minimum Annual Resources Requirement is met.

45. Finally, intervenors argue that PJM's filing fails to discuss, or consider, any alternative proposals, or approaches, that could provide the same or similar long-term reliability benefits PJM is seeking to achieve. Intervenors note that three such alternatives were submitted for consideration in PJM's stakeholder proceeding.⁴⁰ ODEC argues that PJM's proposal fails to address the issue of coupled demand response offers.⁴¹ ODEC notes that these coupled offers invariably clear as Limited Demand Response, thus preventing PJM from clearing the more reliable product at the same clearing price. ODEC cites to the auction held for the 2016-2017 delivery year, in which no Annual Resources cleared, as submitted as part of a coupled offer, while only 13 percent cleared as Extended Summer Demand Response.

46. Additional alternative proposals are identified by the Delaware Commission and the Industrial Customer Coalition, et al. The Delaware Commission asserts that seasonality considerations and geographic diversity could be taken into account in addressing PJM's asserted reliability needs, while the Industrial Customer Coalition, et al. point out that 4,000 MW of uncleared generation offered into the incremental auctions at a dramatically lower offer price. The Industrial Customer Coalition, et al. argue that Annual Resources are able to offer in at lower prices which would allow them to compete more robustly with limited-availability demand response, thus increasing the

⁴⁰ These proposals were submitted, respectively, by EnerNOC and SMECO (whose protests are submitted here jointly as part of the Industrial Customer Coalition, et al.) and by ODEC.

⁴¹ ODEC explains that, under PJM's existing rules, a resource is permitted to offer a quantity of Limited Demand Response at one price paired (or coupled) with a quantity of higher priced Extended Summer Demand Response and/or an Annual Resource. ODEC states that PJM's capacity auction algorithm will then clear the least-cost option that provides the greatest profit margin to the offering resource.

probability that these Annual Resources would comprise a larger portion of the resource mix that clears in excess of PJM's reliability requirement.

C. Answers

47. PJM, in its answer, responds to intervenor arguments questioning the need to modify PJM's 2011 rule changes. PJM argues that none of these argument rebuts PJM's identification of the central problem with PJM's existing rules, i.e., that the vertical curves established under PJM's existing reliability requirement and procurement floors are preventing Annual Resources from setting the price on PJM's downward-sloping demand curve. PJM also argues that while demand response providers and generators should generally be subject to comparable capacity market rules when the characteristics of these resources can be characterized as comparable, market rules may appropriately recognize product differences, such as those exhibited by Annual Resources and limited-availability demand response.⁴² PJM asserts that its proposed tariff changes appropriately strikes this balance. Specifically, PJM argues that Limited Demand Response and Extended Summer Demand Response provide less reliability benefit, due to their limited operating time requirements, and are not similarly-situated with Annual Resources that are available year-round.

48. PJM, in its supplemental answer, argues that the recent extreme weather event experienced on the east coast in early January, 2014 supports its need for reliable resources. Specifically, PJM argues that the cold weather-related emergency that arose over a two-day period, January 7-8, demonstrates the different reliability benefits of Annual Resources and limited-availability demand response. PJM states that over this two-day period, consumption levels well above those that had been forecast required PJM to call on demand response resources to reduce load. PJM states that this included limited-availability demand response resources which were not contractually obligated to provide a load reduction. PJM argues that this occurrence underscores that there is a difference in the reliability value provided by limited-availability demand response and Annual Resources. PJM asserts that this justifies the near-term value of ensuring that resources procured in excess of PJM's reliability requirement are Annual Resources that can help maintain system reliability under conditions of extreme weather and above-average forced outages that can and do occur at any time of the year.

⁴² PJM answer at 2-3 (citing *Demand Response Compensation in Organized Wholesale Energy Markets*, Order No. 745, FERC Stats. & Regs. ¶ 31,322, at P 66, *order on reh'g and clarification*, Order No. 745-A, 137 FERC ¶ 61,215 (2011), *reh'g denied*, Order No. 745-B, 138 FERC ¶ 61,148 (2012), *appeal pending*, *Elec. Power Supply Corp. v. FERC, et al.*, Nos. 11-1486, et al. (D.C. Cir. Dec. 23, 2011)).

49. The IMM, in its answer, responds to intervenor arguments suggesting that PJM has marshaled insufficient evidence, in its filing, or that additional information would be required to show, the harmful impact of Limited Demand Response on reliability and capacity market performance. The IMM characterizes these arguments as stalling tactics, given what it claims is substantial unrefuted evidence of the negative impacts of Limited Demand Response on PJM's capacity markets, as shown in the IMM's market analyses.⁴³ Specifically, the IMM asserts that the price suppression effect of Limited Demand Response in the 2015-2016 Base Residual Auction was nearly \$4 billion. The IMM also responds to intervenor arguments that capping, or eliminating, Limited Demand Response will exclude some customers from participating in PJM's capacity market and providing the added contribution they make to resource adequacy. The IMM argues that to the extent these customers are currently submitting coupled offers (covering both a Limited Demand Response offer and an offer to supply Annual Resources), these customers would be able to participate in PJM's market, albeit in the form of an Annual Resource.

50. P3, in its answer, responds to ODEC's hold-back proposal, as summarized above (i.e., a proposal calling for the sharing of the hold-back, as between Extended Summer Demand Response and Limited Demand Response, and for competition, as between Extended Summer Demand Response and Annual Resources for excess capacity above the Minimum Annual Resources Requirement). P3 argues that, while it favors the elimination of the hold-back altogether, PJM's proposal is an appropriate interim measure because it allocates the entirety of the hold-back to Limited Demand Response, an inferior capacity product, and thus minimizes reliability degradation.⁴⁴

51. P3 also characterizes, as overstated, intervenors' claims regarding the asserted value of Limited Demand Response and Extended Summer Demand Response as excess capacity resources. P3 argues that, regardless, these claims fail to account for the damage PJM's 2011 rule changes exact on PJM's capacity market, given the price suppression effects of limited-availability demand response and the extent to which these inferior resources displace generating units and other products qualifying as Annual Resources.

⁴³ IMM answer at 3 (citing Market Monitor, Analysis of the 2015/2016 RPM Base Residual Auction (September 24, 2013) at 32-38).

⁴⁴ *See also* AEP, et al. answer at 29 (arguing that the application of the hold-back to Annual Resources and Extended Summer Demand Response would not improve price formation in the incremental auctions).

52. P3 also responds to the argument made by the Industrial Customer Coalition, et al. that capacity procurement for excess capacity (i.e., for capacity in excess of PJM's reliability requirement) should be based on price competition. P3 asserts that this argument is based on the false assumption that the resources at issue are equal and otherwise able to provide the same value to the grid. P3 adds that to the extent inferior demand response resources have any incremental value as excess capacity resources, this value is attributable to the fact that these inferior resources can "lean" on the procurement of Annual Resources.

53. AEP, et al. responds to the argument made by the Industrial Customer Coalition, et al. that PJM's proposed tariff changes (and asserted reliability concerns) have not been supported, given that the reserve margins established in PJM's most recent Base Residual Auctions have been in excess of PJM's reliability requirement. AEP, et al. argue that revenue inadequacy for Annual Revenues remains a concern and that consistent price suppression will not support the cost of expanding or retaining facilities. AEP, et al. argue that while PJM's capacity market auctions have had some success in attracting new gas and wind units, nearly 14,000 MWs of additional generation capacity is pending deactivation and is expected to retire between now and 2017. AEP, et al. add that a number of these resources face a variety of challenges, including low natural gas prices and costly retrofits, as required by stricter environmental regulations.

54. AEP, et al. also respond to intervenor arguments suggesting that the Commission has no policy preference in favor of (or opposed to) a sloped demand curve. AEP, et al. argue that, in fact, the Commission has never wavered from its endorsement of a downward sloping demand curve, as applicable to PJM's capacity market.⁴⁵ AEP, et al. add that the support for this approach from experts in the field has been nearly universal.

55. In addition, AEP, et al. respond to intervenors' argument that the increased capacity market costs attributable to PJM's proposal have not been supported. AEP, et al. argue that a properly functioning capacity market should seek to accurately value the underlying product rather than seeking to artificially lower or raise the clearing price. AEP, et al. further argue that lower capacity prices, as achieved over a short-term horizon by way of price suppression, will not benefit consumers in the long-run if these prices do not accurately reflect the underlying value of the capacity product.

56. AEP, et al. also respond to the argument made by the Joint Consumer Advocates, et al. that Extended Summer Demand Response and Annual Resources provided nearly equal reliability value when measured as an excess capacity resource, i.e., after a

⁴⁵ AEP, et al. answer at 11 (citing January 2011 Order, 134 FERC ¶ 61,066 at 41).

minimum quantity of Annual Resources has been cleared. AEP, et al. assert that this argument rests on the calculation of the Extended Summer Demand Response target, which assumes that Extended Summer Demand Response is 100 percent available and displaces an equal amount of 100 percent available generation for the entire year. AEP, et al. conclude that, as such, Extended Summer Demand Response (which has only a six-month performance window) cannot provide nearly the same contribution to system reliability as an Annual Resource, especially for reliability events and system needs that occur in the winter.

57. Finally, the Maryland Commission, its answer, supports PJM's retention of its existing limited-availability demand response products and thus opposes those intervenors suggesting that in a future proceeding, these products should be eliminated; the New Jersey Utilities Board, in its answer, takes the opposite position.

III. Procedural Matters

58. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure,⁴⁶ the timely-filed notices of intervention and timely-filed, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. In addition, given its interest, the early stage of this proceeding, and the absence of undue prejudice or delay, we grant the unopposed late-filed intervention submitted by Converge.

59. 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.⁴⁷ We will accept the answers submitted by PJM, AEP, et al., the Maryland Commission, P3, the IMM, the New Jersey Utilities Board, the Joint Consumer Advocates, et al., and the Industrial Customer Coalition, et al. because they have provided information that has assisted us in our decision making process.

IV. Discussion

60. For the reasons discussed below, we accept PJM's proposed tariff changes as just and reasonable. Under PJM's current rules, capacity market sellers are permitted to offer three distinct classes of capacity products into PJM's capacity market auctions. To meet the one-in-ten-year reliability standard, PJM's analysis indicates that it must rely on one of these products, Annual Resources, to meet at least 90 percent of its capacity needs inside the delivery year. The remaining product classes, as represented by limited-

⁴⁶ 18 C.F.R. § 385.214 (2013).

⁴⁷ 18 C.F.R. § 385.213(a)(2) (2013).

availability demand response, are substantively different from each other and from Annual Resources with respect to their availability. Therefore, we find it reasonable for PJM to distinguish between each class of resources when designing its capacity market rules. On balance, we find that PJM's proposal retains an adequate opportunity for limited-availability demand response to participate in PJM's capacity markets. Limited-availability demand response will be able to compete up to the procurement caps, and they will retain the ability to offer both annual and limited products into the auction.

61. As PJM explains, by setting a minimum MW level in each capacity auction for Annual Resources, and a separate minimum MW level for the combination of Annual Resources and Extended Summer Demand Response, PJM's existing rules virtually guarantee that when Annual Resources are required to be paid a price premium in order to satisfy the minimum requirement, the auction algorithm will immediately turn to clearing the lower-availability products as soon as the minimum for the higher availability products is met. As a result, the algorithm clears lower-cost limited-availability demand response products at the expense of any additional Annual Resources once the minimum requirement for Annual Resources has been met. PJM's proposal is designed to remedy this problem by applying the existing limits on Limited and Extended Summer Demand Response both when PJM procures less than or equal to its reliability requirement and when it may procure more than its reliability requirement.⁴⁸

62. While there may be other ways to address the problem identified by PJM, as suggested by intervenors, that does not mean that the solution proposed by PJM is unjust and unreasonable. In submitting proposed tariff changes pursuant to a FPA section 205

⁴⁸ Not all events requiring commitment of demand resources will occur during the spring, summer, and early fall, when the Limited and Extended Summer Demand products apply. As the Commission's gas-electric coordination investigation has shown, reliability problems can occur during the winter when gas-fired generators may have difficulty with obtaining natural gas or transportation of natural gas. *See Communication of Operational Information Between Natural Gas Pipelines and Electric Transmission Operators*, Order No. 787, FERC Stats. & Regs. ¶ 31,350 (cross-referenced at 145 FERC ¶ 61,134, at P 8 (2013)) ("short term swings in demand by gas-fired electric generators resulting from redispatch by electric transmission operators may be difficult to manage, particularly during times of coincident peak loads on interstate natural gas pipelines and electric transmission systems, such as during unusual cold weather events when end-use customers may rely on both natural gas and electricity"). *See also* PJM supplemental answer at 7 (discussing PJM's need for demand response during the polar vortex on January 7 and 8, 2014, and indicating that all of its demand response was Limited Demand Response and therefore could not be required to run).

filing, PJM need only demonstrate that its proposed revisions are just and reasonable, not that its proposal is the most just and reasonable among all possible alternatives. Nor is PJM required to demonstrate that its existing rules are unjust and unreasonable. Therefore, we decline to address intervenors' proposed alternatives in the context of this section 205 proceeding.⁴⁹

63. Intervenors also argue that PJM's filing is unsupported, given PJM's asserted failure to demonstrate that PJM's current use of procurement floors raises reliability concerns. Our acceptance of PJM's proposed tariff changes does not require us to find that PJM's use of procurement floors is unjust and unreasonable, or otherwise require us to address whether the use of these procurement floors impedes PJM in meeting its reliability requirement; rather, we need only find that PJM's proposed changes are themselves just and reasonable and we find reasonable PJM's proposal to put in place these procurement caps.

64. ODEC argues that once PJM's reliability requirement is met, the lowest price resource that provides a reliability benefit should displace higher cost resources, regardless of resource type. This is, in effect, the way in which PJM's existing capacity market rules work. However, the practical effect of these rules is that resources providing PJM with the most flexibility (*i.e.*, Annual Resources) are not acquired after the reliability requirement is met. Similarly, the practical effect of PJM's proposed tariff changes is that resources providing PJM with less flexibility (*i.e.*, Limited and Extended Summer Demand Response) are not acquired after the reliability requirement is met. Given the large portion of PJM's reliability need that must be met by Annual Resources, we find it just and reasonable that PJM ensures that Annual Resources clear above the reliability requirement up to the sloped demand curve. We agree with PJM that this will help ensure that the capacity market encourages the development of the Annual Resources PJM relies on in the delivery year.

65. Similarly, we reject the argument made by the Industrial Customer Coalition, et al. that PJM's proposal treats limited-availability demand response as if it provides no additional reliability benefits when acquired above PJM's procurement caps. Whether or not limited-availability demand response provides additional reliability benefits when procured above the reliability requirement is not at issue here. PJM's proposed modification retains an adequate opportunity for limited-availability demand response to participate in PJM's capacity markets. More generally, we have previously found that discrimination is only undue when "there is a difference in rates or services among similarly situated customers that is not justified by some legitimate factor." Limited-

⁴⁹ See *City of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir. 1984).

availability demand response products and Annual Resources are not similarly situated as there are large differences in their performance requirements. Thus, we find no reason to require PJM to allow them to compete solely on price above the reliability requirement.

66. In support of its proposal, PJM contends that Annual Resources have lost the price stabilization, reliability, and consumer benefits of a sloped demand curve. In response, AMP argues that a vertical demand curve has previously been accepted by the Commission as just and reasonable, while the Industrial Customer Coalition, et al. argue that no evidence has been presented in this case that Annual Resources have been subject to the flaws of a vertical demand curve. While we acknowledge that the Commission has not required that all regional capacity markets use a sloped demand curve for procuring resources, the Commission has accepted PJM's proposed use of a sloped demand curve. The Commission has seen benefits from the use of a sloped demand curve, such as by reducing price volatility and financing costs. We believe that it is appropriate for Annual Resources to face a sloped demand curve and obtain the associated benefits. As discussed above, the limits on the amount of Limited Demand Response and Extended Summer Demand response are based on the fact that over procurement of these resources may cause reliability problems.

67. We also reject the Joint Consumer Advocates, et al.'s argument that the procurement floor applicable to Annual Resources guarantees that a reasonable price is set for Annual Resources for that delivery year. Our acceptance of PJM's proposed tariff changes does not require us to make a determination as to whether the current prices are just and reasonable, but rather that it is just and reasonable for PJM to modify its auction rules such that Annual Resources may take full advantage of the sloped demand curve.

68. We reject arguments made by ODEC, the Joint Consumer Advocates, et al., and the Delaware Commission that PJM has not justified the estimated additional \$1.8 billion over two years in capacity costs that would result from their proposal. As an initial matter, we note that PJM's proposal will result in the purchase of more Annual Resources that will provide an enhanced level of reliability, and thus it is reasonable to expect that the proposal would also result in additional capacity costs. Furthermore, as noted by PJM in its answer, the same simulation that is used to justify the \$1.8 billion estimate found that there would be a more than offsetting \$3.4 billion in energy savings over the same period. While we cannot confirm the simulation's relative estimates, we agree with PJM that additional generation resources clearing the capacity auction under PJM's proposal would, unlike demand response that does not participate in the energy market until an

emergency event occurs, contribute more energy in the energy market, which in turn would tend to place downward pressure on energy prices.⁵⁰

69. We also reject the argument made by the Joint Consumer Advocates, et al. that Extended Summer Demand Response should also be allowed to compete with Annual Resources up to the sloped demand curve. The difference in availability requirements between Extended Summer Demand Response and Annual Resources are sufficient to justify PJM's decision to place a limit on the procurement of Extended Summer Demand Response. Moreover, Extended Summer Demand Response will still have the ability to aggregate with other limited availability demand response products to offer in as an Annual Resource.

70. Intervenors argue that PJM should not be permitted to subtract the 2.5 percent hold-back only from the procurement ceiling for Limited Demand Response. We reject these arguments. We agree with PJM that subtracting the hold-back from the procurement cap for Limited Demand Response is analogous to the current, Commission-approved practice of subtracting the hold-back only capacity in excess of the procurement floors. This ensures that the subtraction of the hold-back does not diminish the ability to procure Annual Resources. PJM's proposal will also continue to strike "an appropriate balance between providing an opportunity for short lead-time resources to participate in the incremental auctions and sending adequate investment signal to long lead-time resources."⁵¹

71. The Delaware Commission requests that we require PJM to establish stakeholder meetings to explore the cost responsibility for capacity obligations that include the non-summer periods. If the stakeholders deem this to be warranted, they can institute such discussions. However, we do not see a need for a report to the Commission on cost responsibility, since the PJM grid is integrated and we have not seen sufficient evidence that certain customers benefit more or less from non-summer reliability.

72. Finally, we reject intervenors' requests that we consider additional revisions to PJM's currently-effective tariff. These requests are beyond the scope of this section 205 filing, and we do not see a need, at this point, to establish a section 206 proceeding to examine further changes to PJM's tariff.

⁵⁰ PJM answer at 34-35.

⁵¹ *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,062, at P 117 (2012).

The Commission orders:

PJM's filing is hereby accepted, as discussed in the body to this order, to become effective, as requested, on January 31, 2014.

By the Commission. Commissioner Norris is concurring with a separate statement attached.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix A

PJM Interconnection, L.L.C.
FERC FPA Electric Tariff
Intra-PJM Tariffs

PJM Interconnection, L.L.C.
FERC FPA Electric Tariff
Intra-PJM Tariffs

OATT ATT DD.2, OATT ATTACHMENT DD.2 DEFINITIONS, 15.0.0 A 1/31/2014

OATT ATT DD.3, OATT ATTACHMENT DD.3 RESPONSIBILITIES OF THE
OFFICE OF THE, 5.0.0 A 1/31/2014

OATT ATT DD.5.10, OATT ATTACHMENT DD.5.10 Auction Clearing Requirements,
15.0.0 A 1/31/2014

OATT ATT DD.5.11, OATT ATTACHMENT DD.5.11 Posting of Information Relevant
to t, 9.0.0 A 1/31/2014

OATT ATT DD.5.12, OATT ATTACHMENT DD.5.12 Conduct of RPM Auctions, 7.0.0
A 1/31/2014

OATT ATT DD.5.14, OATT ATTACHMENT DD.5.14 Clearing Prices and Charges,
12.0.0 A 1/31/2014

RAA SCHEDULE 8.1.D, RAA SCHEDULE 8.1.D-FRR Capacity Plans, 6.0.1 A
1/31/2014

RAA SCHEDULE 8.1.F, RAA SCHEDULE 8.1.F-FRR Daily Unforced Capacity
Obligations, 4.0.0 A 1/31/2014

Appendix B**List of Intervenors**

Achieving Equilibrium, LLC
American Electric Power Service Corporation (AEP, et al.) *
American Municipal Power, Inc. (AMP) *
America's Natural Gas Alliance (Gas Alliance) *
Buckeye Power, Inc.
Calpine Corporation
Citizens Utility Board of Illinois (Joint Consumer Advocates, et al.)*
Comverge Inc. (Comverge, or Industrial Customer Coalition, et al.) * #
DC Office of the People's Counsel (Joint Consumer Advocates, et al.) *
Dayton Power and Light Company (AEP, et al.) *
Delaware Public Advocate (Joint Consumer Advocates, et al.) *
Delaware Public Service Commission (Delaware Commission) *
Dominion Resources Services, Inc.
Duke Energy Corporation (AEP, et al.) *
Duquesne Light Company
East Kentucky Power Cooperative, Inc.
Edison Mission Energy
Electric Power Supply Association
EnergyConnect, Inc. (Industrial Customer Coalition, et al.) *
EnerNOC, Inc. (EnerNOC, or the Industrial Customer Coalition, et al.) *
Environmental Law & Policy Center, National Audubon Society,
Sierra Club, Natural Resources Defense, Council, Sustainable FERC Project,
and Pace Energy & Climate Center (Joint Consumer Advocates, et al.) *
Exelon Corporation (Exelon) *
FirstEnergy Service Company (AEP, et al.) *
Illinois Commerce Commission
Illinois Municipal Electric Agency
Indiana Office of Utility Consumer Counselor
Indiana Utility Regulatory Commission
LS Power Associates, L.P.
Maryland Office of People's Counsel (Joint Consumer Advocates, et al.) *
Monitoring Analytics, LLC,
acting as the Independent Market Monitor for PJM (IMM) *
Maryland Public Service Commission (Maryland Commission) *
NRG Companies (NRG) *
New Jersey Board of Public Utilities (New Jersey Utilities Board)
New Jersey Division of Rate Counsel (Joint Consumer Advocates, et al.) *
NextEra Energy Generators

North Carolina Electric Membership Corporation (Industrial Customer Coalition, et al.) *
North Carolina Utilities Commission and its Staff (North Carolina Commission) *
Nucor Corporation and Steel Dynamics, Inc. (Steel Producers) *
Old Dominion Electric Cooperative (ODEC) *
Organization of PJM States, Inc.
PHI Companies (Industrial Customer Coalition, et al.) *
PPL PJM Companies (AEP, et al.) *
PSEG Companies (PSEG) *
Pennsylvania Office of Consumer Advocate (Joint Consumer Advocates, et al.) *
Pennsylvania Public Utility Commission (Pennsylvania Commission) *
PJM Industrial Customer Coalition (Industrial Customer Coalition, et al.) *
PJM Power Providers Group (P3) *
Public Power Authority of New Jersey
Public Utilities Commission of Ohio (Ohio Commission) *
Rockland Electric Company (Rockland) *
Southern Maryland Electric Cooperative, Inc. (SMECO, or the Industrial Customer Coalition, et al.) *
The Office of the Ohio Consumers' Counsel (Joint Consumer Advocates, et al.) *
Union of Concerned Scientists (Joint Consumer Advocates, et al.) *
West Virginia Consumer Advocate Division (Joint Consumer Advocates, et al.) *

* Entities submitting protests or comments,
whether individually or jointly.

late-filed interventions

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C.

Docket No. ER14-504-000

(Issued January 30, 2014)

NORRIS, Commissioner, *concurring*:

In today's order we approve PJM's proposal to establish caps on the amount of limited-availability demand response products that PJM will procure in its capacity market. With its proposal PJM seeks to procure more resources – including generation, demand response and energy efficiency – that are available on a year-round basis. Procurement of additional annual resources should increase the level of reliability in PJM, but at additional cost.

While I support today's order given the valid concerns that PJM has raised with respect to its existing capacity procurement rules, I write separately to express my caution that we not lose sight of the extraordinary benefits demand response has brought to consumers. We must continue to provide demand response opportunities to participate in the PJM market on a level playing field with other types of resources.

PJM has pioneered the use of demand response in its capacity market and demonstrated that demand response can be extremely valuable in providing much needed resources and lowering costs to consumers. This success, however, has exposed new concerns as PJM seeks to take a step back and re-evaluate the role that demand response should play in ensuring resource adequacy.

As the role of demand response in PJM's capacity market continues to mature, I am mindful that we may need to further evaluate the rules governing its participation. But, I continue to believe that demand response plays a vital role in ensuring resource adequacy and lowering costs for consumers. It is my hope that this Commission will strike the right balance that maintains a reliable system while ensuring competition among resources that result in the most efficient costs to consumers.

For these reasons, I respectfully concur.

John R. Norris, Commissioner