

product. Unfortunately, including these two unnecessary products in the capacity market would make the markets substantially less efficient, hinder efforts to bring demand-side resources fully into the markets and create needless and counterproductive administrative complexity. A single unlimited demand-side capacity product is all that the PJM capacity market needs, and would provide maximum flexibility for participants whatever their particular operational characteristics or preexisting investment. Given that Curtailment Service Providers (“CSPs”) can and do aggregate participants into portfolios eligible to serve as DR, the market design can accommodate participation by any customer. CSPs are much better situated than PJM to play the role of aggregator, and providing CSPs with an incentive to do so will sustain the growth of demand-side participation in PJM markets.

Accordingly, the Market Monitor requests that the Commission accept an unlimited demand-side annual product rather than the nearly unlimited Annual DR product proposed, reject the unnecessary Extended Summer DR product, and require the elimination of the inadequate Limited DR as unjust, unreasonable and inconsistent with Commission policy.

I. COMMENTS

A. Implementation of a Single, Consistent, Unlimited Annual DR Product Would Significantly Improve the Design of PJM’s Capacity Market.

The Market Monitor supports the implementation of an annual unlimited DR product because it could, if allowed to replace the flawed Limited DR product, remove a significant source of interference with accurate pricing signals in the capacity market and remove a growing threat to system reliability. Acceptance of this element of the December

2nd Proposal would be consistent with the Market Monitor's recommendations on this issue included in its state of the market reports and reiterated in the stakeholder process.²

When load sells the demand-side resource in the capacity market it means that the load does not wish to pay for capacity and is therefore willing to interrupt whenever that capacity is needed by those loads who do pay for it. Capacity is an annual product and logically the commitment to not pay for capacity and to not use capacity must also be annual. Based on the existing definition of capacity as an annual product, the introduction of Annual DR would significantly improve efficient pricing in the PJM capacity market. When load is able to avoid the full price of annual capacity in return for agreeing to curtail only 10 times for a maximum duration of six hours, there will be more than the efficient amount of demand-side resources cleared in the market. Offer prices will reflect the lower costs of this inferior product and these will be reflected in market clearing. This is exactly the reason that PJM has determined that it must cap the amount of this limited product. The issue would not have arisen if the product had been defined properly. It is preferable to define the product properly and let the market manage the supply costs and the clearing quantities rather than misdefining the product and capping the amount purchased. Unlimited DR cannot threaten reliability in the way that limited DR can because, by definition, unlimited DR must be available when needed by the system operator.

The Annual DR product proposed in the December 2nd Filing falls just short of establishing the unlimited DR product that is needed. There is no limit on the number of

² See, e.g., 2009 State of the Market Report for PJM at 110; Memorandum from the PJM IMM to Market Participants re: "DR as an unlimited product" (October 22, 2010), which can be accessed at: http://www.monitoringanalytics.com/reports/Presentations/2010/IMM_MC_DR_As_Unlimited_Product_Proposal_20101118.pdf.

times it can be called or on the days when it must be available. However, as PJM explains (at 22), “This product still has limits on the hours of the day when it must be available—10:00 a.m. to 10:00 p.m. EPT for May through October and 6:00 a.m. to 9:00 p.m. EPT for November through April—but these are more than adequate to capture any time that these resources reasonably might be needed.” That a resource might seldom, if ever, be called is not a reason to excuse it when it may be needed. That is a risk that should be borne by those market participants who do not pay for the identified level of capacity and should not be borne by those participants who have paid for their capacity needs. If the system unexpectedly requires DR at midnight, and the system is relying on Annual DR, then the resource needs to be there or pay a penalty. To the extent that such a call is unlikely, it is unlikely to deter participation. Generators providing capacity must be ready to respond at all times, even peaking units that do not expect midnight dispatch. DR should provide a comparable product. Annual DR should be approved without any hourly restriction. Other customers should not be required to bear this risk as they would be under the PJM proposal.

B. The Limited DR Product Should Be Eliminated Because It Is Unjust and Unreasonable, and Because It Is Inconsistent with Commission Policy.

1. For the Reasons Explained in PJM’s Testimony, Continued Reliance on Limited DR Compromises Reliability and PJM’s Capacity Market Design.

In support of its proposed Annual DR product, PJM offers convincing testimony explaining why the current limited product cannot be relied upon to ensure system reliability, particularly as use of this product grows. PJM explains (at 5–6) that Limited DR has its origins in the rules for Active Load Management (or “ALM”) which developed in the PJM power pool prior to electric industry restructuring. At the time, ALM was a peak-

shaving program that was and was expected to remain a modest contributor to reducing member LSE's capacity obligations. ALM was not developed with the intention that it would set the standard for a demand-side component of a robust capacity market. PJM indicates (at 6) that it "carried forward" the ALM concept into the design of its Reliability Pricing Model ("RPM") in the form of Interruptible Load for Reliability ("ILR"). PJM also carried forward ALM in the definition of what PJM now terms Limited DR, which, like ILR, requires only ten six-hour interruptions per year.

The amount of Limited DR has dramatically increased in recent years. This growth occurred in part as a result of the inappropriate competitive edge offered by rules that treat this less valuable product as the equivalent of the more valuable one. The consequence has been to afford greater than appropriate compensation to the providers of this inferior DR product and less than appropriate compensation to Generation Capacity Resources because the supply of the inferior product depressed the capacity market prices. This inefficient outcome should not be continued.

As PJM (at 9-16) and its witness Tom Falin's testimony (Attachment A) explain in detail, as PJM increasingly relies upon Limited DR, the likelihood that it will be called upon increases to the point where reliance on Limited DR poses a risk that the resource will not be available to dispatchers when needed and system reliability will be compromised. This testimony is more than adequate to support a finding that continued inclusion of Limited DR in PJM capacity markets is unjust and unreasonable.

2. Limited DR Is Inconsistent with the Commission's Policy Requiring Comparable Treatment of Demand and Generation Resources.

The Commission has proposed and promulgated policies requiring comparable treatment of demand and generation resources in markets administered by RTOs/ISOs.³ Although the Market Monitor is not aware that this policy has yet been explicitly applied to capacity markets, there is no reason why it should not be so applied. The concept of "comparability" has not yet been uniformly defined.⁴ The Market Monitor would define comparability to mean, with regard to capacity, that from the perspective of its economic and reliability value, a MW of Demand Resource and MW of Generation Capacity Resource

³ See, e.g., *Demand Response Compensation in Organized Wholesale Energy Markets*, Notice of Proposed Rulemaking, 130 FERC ¶61,213 at P 12 (2010) ("NOPR") ("we believe paying demand response resources the LMP in all hours will compensate those resources in a manner that reflects the marginal value of the resource to each RTO and ISO, comparable to treatment of generation resources"); *Wholesale Competition in Regions with Organized Electric Markets*, Order No. 719, FERC Stats. & Regs. ¶31,281 at P 47 (2008) ("Order No. 719") ("the Commission adopts the NOPR proposal to require each RTO or ISO to accept bids from demand response resources, on a basis comparable to any other resources, for ancillary services that are acquired in a competitive bidding process"), *order on reh'g*, Order No. 719-A, FERC Stats. & Regs. ¶31,292 (2009), *reh'g denied*, Order No. 719-B, 129 FERC ¶ 61,252 (2009).; *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, FERC Stats. & Regs. ¶31,241 at P 479 ("where demand resources are capable of providing the functions assessed in a transmission planning process, and can be relied upon on a long-term basis, they should be permitted to participate in that process on a comparable basis."), *order on reh'g*, Order No. 890-A, FERC Stats. & Regs. ¶31,261 (2007), *order on reh'g*, Order No. 890-B, 123 FERC ¶61,299 (2008), *order on reh'g*, Order No. 890-C, 126 FERC ¶61,228 (2009), *order on clarification*, Order No. 890-D, 129 FERC ¶61,126 (2009); *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, FERC Stats. & Regs. ¶31,242 at P 330, *order on reh'g*, Order No. 693-A, 120 FERC ¶61,053 (2007).

⁴ See, e.g., Order No. 719 at P 50 ("...[W]e decline to define "comparable treatment." Each RTO and ISO is unique, and the Commission hesitates to impose a uniform definition. Each RTO and ISO therefore should establish policies and procedures in cooperation with its customers and other stakeholders that ensure that demand response resources are treated comparably to supply-side resources.").

must be comparable such that PJM can clear the market on the basis of competing bids from these resources without resort to other criteria.

The Limited DR product that PJM proposes to retain does not meet this standard. PJM has demonstrated that a MW of Limited DR is less valuable from a reliability perspective than a comparable MW of production capacity. PJM's solution is to cap the level of the Limited DR product. This approach is not consistent with the Commission's policy regarding comparability. With the introduction of the Annual DR product, PJM has created a product that almost meets the comparability standard, as described above, and affords an opportunity for the Commission to apply its comparability policy to capacity markets consistent with the rule applicable to ancillary services markets.

3. The Commission Should Reject PJM's Rationale for Inaction, Eliminate Limited DR as an Unjust and Unreasonable Interference with Efficient Market Pricing and an Unnecessary Compromise to Reliable Operations, Apply Its Policy on Comparability and Require Elimination of the Limited DR Product from PJM's Capacity Market.

Although the December 2nd Filing includes a nearly unlimited DR product, it does not propose to eliminate the Limited DR product, explaining that "demand response commitments have been a notable success of RPM to date, and PJM has no interest in thwarting that success." PJM claims (at 21), "While a substantial portion of this existing load management capability probably could commit to PJM through a product with fewer limitations, many of these resources could face challenges if they attempted to transition too rapidly to less limited products."

PJM is deservedly proud of its achievements in developing demand response to date. It is because of this achievement that PJM now is in the position to take the next important step towards incorporating demand response into the market in a manner where

it can replace production capacity with demand-side response, MW-for-MW, on a comparable basis without compromising the efficiency of its market or the reliability of its system.

Rather than hurting the prospects of demand-side resources, the implementation of an unlimited demand-side product would send the clear signal that the demand-side is ready to fully assume its role as a market product, ready to compete with generation resources on an equal footing. The implementation of an unlimited demand-side product will pave the way for the development of demand-side resources that do not rely on market rules that create an inferior product and which therefore encourage the development of inefficient demand-side resources. Continuation of a limited product will only exacerbate the issue that PJM is concerned about. The more of the inferior product that is sold, the more difficult the transition to a well defined product will be.

PJM offers a powerful case for the elimination of Limited DR, and the Commission should act on the basis of the facts that PJM adduces rather than on PJM's concerns that market logic is too harsh.

The Commission should require the elimination of Limited DR as unjust and unreasonable, and inconsistent with the Commission's views on comparability. This action will also significantly advance the Commission's repeatedly expressed desire to foster the development of demand-side participation in RTO markets.⁵

⁵ See, e.g., NOPR at PP 2–6.

C. The Extended Summer DR Product Solves a Non-Existent Problem.

The proposal in the December 2nd Filing to establish a new Extended Summer DR Product is a step in the wrong direction away from an unlimited demand-side product defined consistent with how capacity is defined in RPM. The December 2nd Filing nonetheless proposes to allow a certain subset of demand-side resources to offer a non-comparable seasonal product. This is inconsistent with the comparable treatment of demand-side resources.⁶

The December 2nd Filing fails to show any need for adding an Extended Summer DR product. The only explanation in the December 2nd Filing is this statement (at 24):

[T]he Extended Summer DR product parameters proposed here provide a good fit for a significant share of PJM’s existing load management capability. The RAA currently recognizes a type of Demand Resource known as Direct Load Control, which it defines as load management ‘that is initiated directly by the Provider’s market operations center or its agent, employing a communication signal to cycle equipment (typically water heaters or central air conditioners).’[footnote omitted] PJM’s experience with this type of load management, and the data Demand Resource providers give PJM each year to qualify this capability as a Demand Resource, indicate that it should be physically capable of interrupting for longer than six hours at a time, and for more than ten times per summer. The Extended Summer DR product very likely would accommodate much of this capability, since it only needs to be available during daytime in the summer.

PJM does not explain why participants qualifying as Summer Unlimited would not qualify as unlimited or Annual DR. Using the Firm Service Level (“FSL”) approach, an approach used to measure and verify compliance in for Demand Resources, if load levels

⁶ See *infra* Section I.B.2.

are at the FSL outside the summer period, the customer is compliant even though no affirmative action is required. For example, if load reduction to FSL comes from air conditioning load cycling in summer peaks, non summer period load will reflect the absence of air conditioning load and the promised FSL. Consequently, such customers would be compliant with their commitment to reduce load to the FSL in the November–April period.

PJM did not identify any customer types who would be eligible for the Extended Summer DR, but not an unlimited product.

PJM indicates (at 24–26) that a number of stakeholders, including many state commissions, have urged PJM to include the Extended Summer Only product. The stated concern is the prospect that considerable investment in demand response capability would be incompatible with RPM unless it includes an Extended Summer Only Product.⁷ The Market Monitor’s position is that summer only programs that are equivalent to air conditioner cycling programs should qualify as unlimited DR and that this requirement should be incorporated in the rules to provide certainty to the state commissions. The Commission could alleviate that concern by directing PJM to resolve the issue by clarifying that summer A/C cycling programs and their equivalents are eligible Annual DR if their FSL is not exceeded in the winter when the summer source of the load does not exist.

⁷ See, e.g., Letter from Douglas R. M. Nazarian, Chairman, Maryland Public Service Commission to Michael Kormos, Chairman, Markets and Reliability Committee, dated October 18, 2010 at 1 (“Unfortunately, the recent discussion around demand response saturation and the proposed solutions to that problem has created a great deal of uncertainty about whether and to what extent Maryland utilities’ demand response and smart grid programs would be able to participate under the new rules.”).

D. Inclusion of Limited DR and Extended Summer DR Product Adds Unnecessary Administrative Complexity and Creates a Centrally Administered and Illiquid Market for DR Products.

PJM's proposal to create multiple demand-side capacity products has required PJM to propose complicated new clearing rules for RPM auctions. These rules require PJM to make an administrative determination of the maximum Limited DR product that the system can absorb without compromising reliability and a second determination of how much Extended DR can be accepted without compromising reliability in PJM during the period from November to April. PJM must then determine when the caps on these products bind zonally, and PJM is thereafter compelled to procure capacity that either is or is comparable to (i.e. unlimited DR) generation capacity. It is plain from PJM's description of these new clearing rules (at 26–32) significantly increase the complexity of RPM auction rules. This increased complexity raises the risks for all who participate in it, significantly complicates the ability to evaluate or predict its performance and frustrates effective regulatory oversight. The necessary administrative elements of RPM, including the forecasts and reliability determinations necessary to identify the procurement target and the auction rules have already proven controversial. No compelling reason has been offered here to add yet another layer of complexity.

This assumes the best case outcome; that the addition of complications stops with this filing. In the worst case, this proposal is but the first of a plethora of differentiated capacity products. Next could come additional demand-side products tailored to match every conceivable operational profile. Then may come generators, who, perhaps on the basis of the Commission's comparability policy, may seek different capacity products. In each case, starting with the new products proposed here, the liquidity in the market is reduced, the auction parameters and rules for clearing become more administrative and

complex, and gradually the competitive transparent and uniform market for capacity disappears and is replaced by a wholly administered and opaque construct.

A basic function of RPM is to provide a forward price signal for capacity. Creating an array of different capacity products at different prices at the same location confuses this price discovery function. In the worst case, RPM prices would no longer reflect underlying market fundamentals in a way that could be reasonably acted upon by market participants.

The approach offered in the December 2nd Filing, which is necessary only to accommodate its proposed proliferation of demand-side resource is an unwelcome step in this direction. It is past time to look for ways to reduce RPM's complexity and improve its comprehensibility, not to aggravate and multiply these problems.

In some cases potential customers may be more comfortable having an intermediary between it and the requirements associated with an Annual DR product. The question is really who that intermediary should be. The December 2nd Filing would assign this role to PJM, but PJM is not optimally situated to perform this task. It is enough for PJM to determine what it needs from demand-side resources to obtain comparable reliability value to what it obtains from production capacity, define a uniform DR product accordingly, and develop rules that enable the market to respond.

The market will work much better if the rest is left for customers and CSPs to work out. Some customers may choose to participate directly; others may choose to participate indirectly through CSPs. CSPs can commit to provide PJM capacity, as defined by a consistent and comparable demand-side capacity product, and then develop and manage a portfolio that meets those commitments consistent with its risk tolerance and business judgment. Any customer with a demand profile and responsive capability has the potential to offer the CSP value. CSPs must compete for customers and grow by increasing

participation. No matter how unique the particular circumstances that apply to each customer, the CSP and the customer can attempt to arrive at a valuation of the customer's contribution to the portfolio.

This allows for an individual market-based valuation without the need for administrative intervention by PJM or anyone else. This approach motivates CSPs to grow participation in demand response and overcome whatever inertia resides in their potential customer base. Neither PJM nor parties with divided interests are best suited for that task.

There is no reason to expect that a market design in which PJM defines its needs and organizes the market, and market participants perform the task of organizing resources to meet those needs, cannot carry forward PJM's successful development of the demand-side of its market. On the contrary, this is the most promising platform for its continued growth. The Market Monitor urges that the Commission accept PJM's proposed Annual DR product modified to be fully unlimited and reject the proposed and retained alternatives, as well as the associated unnecessary and counterproductive proposed changes for clearing DR in RPM auctions.

II. CONCLUSION

The Market Monitor respectfully requests that the Commission afford due consideration to this protest as it resolves the issues raised in this proceeding.

Respectfully submitted,



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CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Eagleville, Pennsylvania,
this 20th day of December, 2010.



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