UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

PJM Interconnection, L.L.C. ) Docket No. ER15-623-000

ANSWER OF
PJM INTERCONNECTION, L.L.C.

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III. CONCLUSION
ANSWER OF
PJ M INTERCONNECTION, L.L.C.

PJ M Interconnection, L.L.C. (“PJ M”), pursuant to Rule 213 of the Commission’s rules, 18 C.F.R. § 385.213, hereby answers 1 certain of the protests to and comments on PJ M’s December 12, 2014 filing under section 205 of the Federal Power Act, 16 U.S.C. § 824d, in this proceeding (“December 12 Filing”) to amend PJ M’s Open Access Transmission Tariff (“Tariff”) and the Reliability Assurance Agreement Among Load Serving Entities in the PJ M Region (“RAA”). By the December 12 Filing, PJ M seeks to reform provisions of the Reliability Pricing Model (“RPM”) that are failing to incent, or that act as obstacles to, efforts to improve the performance of the Capacity Resources 2 on which the PJ M Region depends for reliability.

PJ M proposed that the Tariff and RAA provisions become effective on April 1, 2015, and asked the Commission to act on the proposed amendments by that date, so that participants in the May 2015 RPM Base Residual Auction (“BRA”) will have certainty

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1 PJ M seeks leave to answer the protests and comments to the December 12 Filing to assist the Commission’s decision-making process and clarify the issues. The Commission regularly allows answers in such cases. See, e.g., PJ M Interconnection, L.L.C., 139 FERC ¶ 61,165, at P 24 (2012) (accepting answers to a protest because “they have provided information that assisted [the Commission] in [its] decision-making process’’); PJ M Interconnection, L.L.C., 104 FERC ¶ 61,031, at P 10 (2003) (accepting answer because “it will not delay the proceeding, will assist the Commission in understanding the issues raised, and will [e]nsure a complete record upon which the Commission may act”).

2 Capitalized terms not defined herein have the meaning set forth in the Tariff or RAA, as applicable.
on the rules that will significantly affect capacity committed in that auction. PJM reiterates that request here.

I. INTRODUCTION AND SUMMARY

The December 12 Filing precipitated a large volume of substantive comments and protests, both for and against various elements of the proposal. To assist the Commission’s analysis of this record and its decision-making in this case, PJM submits this comprehensive answer. While PJM engages the various objections and proposed changes at a detailed level in subsequent sections of this answer, a large part of the debate in this case revolves around a relatively small number of major points of controversy. PJM highlights those major issues in this summary, and explains at a high level how the answers on each of those major points of contention reinforce the need for capacity performance reforms, and underscore that the particular reforms PJM has proposed are just and reasonable.

As shown in this answer, the December 12 Filing is well-supported and consistent with precedent; PJM therefore urges the Commission to accept the proposed changes—with one exception. Based on the comments received, PJM is now asking the Commission not to rule on the December 12 Filing’s proposed change in the method for determining the capacity obligations of Load Serving Entities (“LSEs”). PJM proposes instead to discuss that issue further with stakeholders, and report back to the Commission in one year on the results of those discussions; PJM asks that the Commission formalize this further stakeholder process as a compliance obligation. While it is reasonable to adapt the capacity obligation determination rules to reflect the commitment of Capacity Resources to satisfy emergency needs at any time of the year, that change need not happen immediately. Given the concerns and complications identified by the parties on
this issue, the better course is to allow the stakeholders time (time that is available because, as a practical matter, the allocation of capacity obligations does not need resolution before the May 2015 RPM Base Residual Auction) to consider how best to revise the capacity obligation determination and cost allocation rules, taking into account the Commission’s decision on the proposed Capacity Performance changes in this docket.

PJM also offers in this answer a number of clarifications, and suggestions on possible alternative tariff language on a few issues, to help narrow differences and facilitate the Commission’s decision.

PJM’s detailed responses in this answer generally follow the same outline as the transmittal letter in the December 12 Filing. Thus, PJM first rebuts those who argue that there is no need to reform the RPM rules on Capacity Resource performance. As shown, strong performance incentives are a vital part of the solution to poor resource performance. It is not enough to identify operating changes or fuel contracting practices that Capacity Market Sellers could take to improve performance. If the market incentives are weak, or raise obstacles to cost recovery, then the response from market participants will be predictably insufficient.

PJM next defends the proposed rules that define the new Capacity Performance Resource and Base Capacity Resource products, and that transition all Capacity Resources over five years to a single uniform product. Although a rich variety of resource types can qualify as Capacity Performance Resources, all must meet a single, essential performance requirement: delivery of energy and reserves when needed during emergencies.

While numerous issues are raised in this area, one over-arching theme, both in the initial definition of the products and in the transition, is the status and treatment of
Demand Resources, Energy Efficiency Resources, Storage Capacity Resources, and intermittent generation. Properly viewed, however, the proposed Capacity Performance rules present opportunities, not obstacles. The governing principle of this new approach is very simple, and very conducive to innovation and efficiency: resources that exceed expectations will receive higher compensation; those that fall short of expectations will relinquish revenue, and face a threat of net payments.

There is ample opportunity for demand-side resources, intermittent generation, and storage to succeed in a capacity construct that emphasizes performance. First, none of these resource types are compelled to offer as Capacity Performance Resources during the five year transition—but they can choose to so offer if their resource meets the Capacity Performance standard. And they can hedge their bets by offering alternative “coupled” offers by which they can clear as Base Capacity Resources unless the clearing price reaches a level—which they select—at which they are comfortable committing as a Capacity Performance Resource. Second, demand-side resources, storage, and intermittent generation have considerable flexibility to determine the capacity level at which they offer and clear their resources in the RPM Auctions. Because the “second settlement” of Capacity Performance pays resources that exceed expectations, the seller’s ability to set expectations, by selecting its capacity commitment level, opens considerable revenue opportunities for these very resources. As PJM illustrates in later sections of this answer, market participants that embrace these opportunities can realize significant increases in their compensation from the PJM capacity market. Third, demand-side resources, storage resources, and intermittent generation have an option to aggregate their resources and take advantage of inherent seasonal diversity between resource types in order to deliver a resource that can provide energy and reserves during emergencies at
any time of the year. In response to comments, PJM clarifies in this answer how resources in different Locational Deliverability Areas (“LDAs”) can aggregate, and how resources that are owned by distinct entities can be aggregated in the capacity account of a single PJM market participant. In short, PJM proposes flexible rules for continued successful participation by these resource types; the opportunities are there for those willing to pursue them.

PJM next discusses the closely linked issues of the reforms to RPM’s performance charges, to create strong incentives to perform, and the reforms to RPM’s offer-price capping rules, which provide sellers the room to craft and implement their strategies to deliver a well-performing resource. PJM’s proposed offer cap level of the Net Cost of New Entry (“CONE”) for Capacity Performance Resources is critical in this regard. As PJM shows, a substantially higher offer-price cap is needed for Capacity Performance Resources, which face substantial additional costs—from the new capital and operating costs needed to ensure the resource’s emergency performance—and substantial additional risks—from the severe financial impacts if the resource’s performance in fact falls short under PJM’s virtual “no-excuses” standard. These costs and risks may be difficult to quantify, especially on a three-year forward basis. As a result, the issue is not whether there should be an offer cap, but which offer cap to select. Net CONE is a replacement-cost-based value estimated by the independent Regional Transmission Organization (“RTO”), which the Commission has repeatedly accepted and affirmed as the expected equilibrium price in a competitive market. Given the strong incentive in RPM’s single-clearing price market for resources to clear at any level above their marginal costs, confirmed by RPM Auction clearing prices that regularly are below Net CONE, the Net CONE offer cap level is best seen as simply
affording sellers flexibility to make their best estimate of their particular avoided costs. With this flexibility, sellers can then balance their desire to earn RPM revenues against their best estimates of the minimum costs required to ensure their resource can perform when called upon in an emergency.

As to the mechanics of the Non-Performance Charge and the Performance Payment, the record reflects equally vehement arguments that PJM’s proposed charge levels are too high and too low. As shown in the December 12 Filing, this part of PJM’s proposal closely tracks the structure, and much of the details, of the approach recently approved for ISO-New England. PJM’s only notable departure from the ISO-New England particulars concerns the “stop-loss.” And that departure is warranted because rote application of New England’s stop-loss to PJM’s particular circumstances would mean that a seller would have to trigger the monthly stop loss in eight of the twelve months of the Delivery Year—a virtual impossibility in the PJM Region—before it relinquished all capacity revenues for the year. Eliminating the threat of loss of all revenues, however, would take away one of the strongest incentives that a program like this can establish, and would diminish the opportunity presented by this filing to meaningfully shift responsibility for poor resource performance from loads to suppliers.

PJM also discusses in this answer a number of important related and supporting changes in the December 12 Filing, including conforming changes to credit rules, comparable Capacity Performance rules for Fixed Resource Requirement Entities ("FRR"), and elimination of the Short-Term Resource Procurement Target, whose recognized distorting effects on auction clearing prices can no longer be justified. As shown, PJM’s proposed Tariff and RAA changes in these areas are just and reasonable.
Finally, PJM rebuts those who argue that the forward-looking, policy-driven market rule changes in this proceeding should be debated in a trial-type hearing; and who seek to suspend this filing’s effectiveness past the next BRA, in order to delay these important changes for another year.

II. ANSWER

A. PJM Has Demonstrated a Need for RPM Reforms that Provide Both a Strong Incentive, and the Means, for Suppliers to Improve Capacity Resource Performance.

As PJM explained in the December 12 Filing, the Reliability Pricing Model (“RPM”) has been successful in securing capacity commitments, but experience has proven that the RPM rules on capacity performance have been less successful, as they have not adequately ensured that committed resources will perform when needed. The current RPM provision that is specifically designed to enforce a generation resource’s capacity commitment, known as the Peak Hour Period Assessment (“PHPA”) Charge, is inadequate. It puts most of the risk of resource underperformance on loads, rather than on the resource owners or operators. A seller can earn substantial revenues through RPM by committing its generation resource as capacity, with little concern that it will lose much of that revenue even if it performs poorly. The PHPA Charge therefore provides a Capacity Market Seller little incentive to make capital improvements or increase its operating expenses in order to enhance availability since there is little risk of losing significant capacity revenues for being unavailable during reliability critical events. No protestor has countered PJM’s showing that the PHPA Charge gives sellers little incentive to ensure their Capacity Resources can perform when needed during emergencies.
In addition to the limited incentive to improve resource performance, PJM also described in the December 12 Filing the limits on a seller’s opportunity to recover in RPM the costs that must be incurred to improve resource performance. RPM’s offer-price capping rules for existing generators, known as the Avoidable Cost Rate (“ACR”), allow recovery of certain capital costs, including investments in fuel security, such as dual-fuel capability. However, as explained in the December 12 Filing, sellers are not currently allowed to include natural gas firm transportation (“FT”) costs in the ACR calculations.

And even if a seller could include the costs of FT service in a Sell Offer, resources which have not taken those fuel assurance steps may well clear the auction in lieu of the resource that did take prudent steps to “firm-up” its fuel supply. The larger problem is that if resources that choose not to invest in (or budget for) measures to ensure higher availability and better performance can still clear the auction and set the clearing price, sellers that are willing to make such investments could be priced out of the market. Rather than encouraging investments to improve resource performance, therefore, RPM’s current rules (including the weak performance incentives) encourage sellers to trim their capital improvement plans and operating budgets in order to remain competitive with resources that can clear as capacity and receive all or most of RPM’s capacity payments, without making an effort to enhance fuel security or otherwise improve availability and performance. No protester seriously contended that the current RPM rules provide sellers a good opportunity to recover firm gas transportation costs in their cost-capped RPM Sell Offers.

Although the PHPA Charge’s inadequate incentive to improve generation resource availability, and the challenges under the current RPM rules to recovering firm
gas transmission costs, have been in place for a few years, the consequences of the current poor incentive structure around resource performance became obvious during the “Polar Vortex” in January 2014, when over 22% of PJM capacity was unavailable.\(^3\) Given the deficiencies in the current RPM rules concerning resource performance and firm fuel cost recovery, there is no assurance that poor performance will not recur. Although various protesters challenged PJM’s proposed solution, none seriously disputed the underlying trends that PJM outlined in the December 12 Filing in support of its proposed Tariff changes.

To address these issues, the December 12 Filing proposed a series of important tariff reforms to ensure that resources committed as capacity to meet the PJM Region’s reliability needs will deliver the promised energy and reserves when called upon in emergencies, including, among other Tariff and RAA changes:

- A new capacity product—the Capacity Performance Resource—that provides greater assurance of delivery of energy and reserves during emergency conditions;
- Virtually eliminating the current excuses for Capacity Resource non-performance, leaving only certain narrowly drawn exceptions for actions specifically approved or directed by PJM;
- A replacement for the flawed Peak Hour Period Availability (“PHPA”) provision that will assess charges for poor performance (subject to a reasonable “stop-loss” provision), and make payments for superior performance to provide a strong incentive for performance; and
• Capacity Sell Offer rule changes that recognize the costs and risks of offering Capacity Performance Resources by increasing the offer-price cap for such resources to the Net Cost of New Entry (“CONE”), while also allowing offers in excess of the Net CONE if the seller can demonstrate that the costs of improving resource performance exceed that value.

In response to the December 12 Filing, many parties echoed PJM’s conclusion that tariff reforms are needed on the rules affecting Capacity Resource performance, even if not all agreed on all of the proper components of that reform.4 A number of parties, however, argue that there is no need for action now.5 These parties seek to minimize the need for reforms on the grounds that (i) the Polar Vortex was anomalous and thus should not be the basis for tariff reforms; (ii) PJM and resource owners are already taking other steps to improve resource performance; (iii) the Commission and stakeholders are pursuing gas-electric coordination initiatives which should lead to better performance by gas-fired generators and therefore reduce the need for PJM’s proposed tariff changes; and


(iv) new interstate pipeline capacity will be installed in the area which should address some of the concerns identified in the December 12 Filing.

As discussed below, notwithstanding the other efforts and initiatives cited by the protestors, timely action on this filing is necessary and appropriate. Tariff changes that provide stronger incentives and better opportunities to improve resource performance clearly should be an important part of the broader efforts to remedy poor performance by the Capacity Resources on which this region depends for reliability. The December 12 Filing makes a strong showing that the current Tariff rules relating to resource performance have clear deficiencies. Correcting those deficiencies and providing a solid foundation in the PJM market rules for improved resource performance will complement other efforts under way to address resource performance or improve coordination between the electric and gas markets.

1. The Justification for Market Design Reforms Is Far Broader than Just the Polar Vortex; Ongoing Efforts on Gas-Electric Coordination and Operating Practice Changes Therefore Do Not Moot the Need for the Proposed Changes.

A number of parties argue that the Polar Vortex should not dictate significant changes to the Tariff because the Polar Vortex was an extreme event which may not recur. These parties argue that PJM is over-reacting to that anomalous event, or rushing to judgment as a result of that singular event. However, these parties largely ignore the deficiencies and disincentives embodied in the current RPM Tariff rules relating to resource performance. These include a very weak non-performance charge provision, and unquestioned obstacles in the offer-capping rules to recovery of the types of costs needed to ensure firm fuel delivery and improved resource performance. The Polar

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6 E.g., AMEA at 6-9; AMP/ODEC/SMEC at 12; DOD/FEA at 3.
Vortex provided a dramatic demonstration of these adverse effects. But the shortcomings in the current resource performance rules would still be there, and would still require correction, even if there had been no Polar Vortex.

Nor does lack of similar disruptions this winter demonstrate that the conditions seen in January 2014 were a one-time event which could not be duplicated in the future. Simply put, to date, conditions this winter have not been as challenging as the conditions faced last winter. The past few weeks have been cold at times, but not to the level of last January, and PJM did not get to the point of dispatching all resources. This distinction is important, as the resources that are reserved until the end are typically the poorer performers because they rarely operate. Further, the PJM Region has not seen the gas market prices and gas delivery constraints that were seen during the bitterly cold weather last year. But given further retirement trends and the region’s increased reliance on natural gas, it is prudent for PJM to eliminate disincentives to sound unit performance even if another Polar Vortex does not occur in the near future. Contrary to various protests, changes to operating practices based on lessons learned during the Polar Vortex also do not resolve the Tariff issues addressed in the CP Filing.

But without changes in generation plant and fuel delivery infrastructure, the near-term measures are necessarily limited, do not address the root cause of the problem which is the appropriate allocation of risk with respect to fuel security, and they have not yet been put to the test by peak winter operations or stressed conditions. Parties that focus on these operating practice improvements are missing the

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7 The PJM Operating Committee recently reviewed these efforts and their current status, as shown by the spreadsheet considered by the committee and posted at the following address: http://www.pjm.com/~media/committees-groups/committees/oc/20141203/20141203-item-12-and-13-hot-and-cold-weather-recommendation-updates.ashx.
larger picture: providers of resources that have been committed, and very well compensated, as capacity in PJM did not feel any pressure to pursue these types of beneficial resource operating changes before the Polar Vortex struck. That is among the most important lessons learned during the Polar Vortex; and a backward-looking change to address one or the other particular operating practice does not address that larger context. The current RPM rules plainly did not sufficiently encourage Capacity Market Sellers to anticipate problems and demonstrate a much higher commitment to resource performance. Consequently, changes in those rules are a necessary and appropriate part of the solution.

Likewise, the Capacity Performance proposal will complement and advance important ongoing Commission initiatives regarding price formation, capacity markets, and gas-electric coordination. It certainly will not “interfere” with those initiatives, as some parties suggest. Protestors present no basis for the Commission to defer acting on PJM’s section 205 filing in this proceeding while it addresses gas-electric coordination issues elsewhere. Notably, alignment of electric market and gas pipeline scheduling deadlines would not prevent Capacity Market Sellers from still relying solely on interruptible supplies to the detriment of electric loads. Rule changes are needed that address the incentives and behavior of Capacity Market Sellers.

Similarly, Allegheny’s claim that new gas pipelines will allow “a potential solution” by increasing gas deliverability also overlooks the larger picture. Additional delivery infrastructure can help, but Capacity Market Sellers still must have a stronger

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8 E.g., AMP/ODEC/SMEC at 25-26; Dominion at 11-16.

incentive to pursue firm fuel delivery arrangements that protect PJM loads. Capacity Market Sellers should not be able to continue to contract for gas on inflexible terms, such as minimum must takes, and then shift that risk on to the load by being allowed to submit non-physical minimum run times to PJM. New pipelines alone are not enough because there is currently no mechanism or requirement in RPM to require gas power plants to purchase firm gas transportation. And, as previously noted, it is not clear that the current RPM rules allow mitigated capacity offers to include firm gas transportation costs; the December 12 Filing directly resolves that uncertainty. Moreover, PJM’s Capacity Performance proposal should promote not only investment in gas pipelines but also investments in gas storage—making gas fuel more reliable during periods of stress—and in dual fuel backup—increasing system resiliency.

2. Cost-Benefit Analysis.

A number of parties argue that the Commission must order PJM to submit a cost-benefit analysis as a condition precedent to the Commission’s evaluation of the December 12 Filing.10 Some note that PJM prepared such an analysis of the Capacity Performance proposal late last year and provided it to stakeholders,11 and some of those

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parties take issue with assumptions in that PJM study.\textsuperscript{12}

The Commission generally does not require a cost-benefit analysis in order to consider or approve market rule changes.\textsuperscript{13} The essential showing required under FPA section 205 is only that the proposed tariff change is just and reasonable.\textsuperscript{14} As the Commission has observed “[a] cost-benefit analysis is largely a tool for stakeholders to evaluate different market designs and to determine their interest in moving forward with a market proposal.”\textsuperscript{15} A holding in this case that a formal cost-benefit analysis must be submitted (and presumably litigated) in a section 205 proceeding would go well beyond past Commission precedent and raise a new hurdle to timely Commission action on market rule changes under section 205.

PJM showed in the December 12 Filing that its proposed Tariff and Reliability Assurance Agreement (“RAA”) changes are just and reasonable, but PJM did not rely on a cost-benefit analysis in that filing in order to make that showing. The further record compiled in this proceeding provides considerable additional support for the need for


\textsuperscript{13} See, e.g., Sw. Power Pool, Inc., 141 FERC ¶ 61,048, at P 57 (2012) (“[A]pproval of [the SPP marketplace] is not based on any specific cost-benefit amount.”), order on reh’g & clarification, 142 FERC ¶ 61,205 (2013).


\textsuperscript{15} Sw. Power Pool, Inc., 141 FERC ¶ 61,048, at P 57.
significant changes in RPM’s Capacity Resource performance rules, and for key elements of PJM’s proposed changes.\textsuperscript{16} As a result, the Commission should review the record as submitted and not impose a new filing requirement on PJM prior to reviewing the reasonableness of this filing pursuant to its section 205 standard of review.\textsuperscript{17}

As noted by some parties, PJM did prepare (with assistance from the IMM) and provide to stakeholders, for informational purposes and to inform the stakeholder process, a cost-benefit analysis of the capacity performance proposal [during the Enhanced Liaison Committee stakeholder process].\textsuperscript{17} As PJM does not rest its filing in this proceeding on that study, it would not be productive to debate the study’s assumptions with the protestors in this proceeding. PJM notes, however, that the study results, which PJM would characterize as indicative, helped illuminate certain aspects of the proposal. The analysis highlighted economic benefits in the energy market due to improved generation availability and performance, as well as a reduction in energy market uplift payments due to more flexible resource offer requirements. The Capacity Performance proposal is designed to improve generator performance and enhance reliability, but PJM did not attempt to quantify the economic value of reliability improvements. In contrast to these energy market and reliability benefits, the Capacity Performance proposal can be expected to increase capacity costs, including the costs of investments for improved resource performance. Overall, PJM found that the economic


benefits would exceed the economic costs in years with extreme weather, whereas economic costs would exceed economic benefits in years with average or mild weather. These results consequently reinforce the conclusion that the current RPM resource performance rules do not properly value the costs needed to achieve the level of generation performance that is required to sustain reliable operations during extreme conditions—which is exactly when generation performance is critical.

On a related point, OPSI argues that the record of this proceeding requires an estimate of the costs generators would incur to improve resource performance. PJM disagrees. It is not PJM’s responsibility to estimate costs that any Capacity Market Seller would need to incur to ensure that it’s Capacity Resource is available during emergencies. That responsibility lies with the Capacity Market Seller. Performing during emergencies always should have been understood by sellers as the fundamental attribute of the Capacity Resource they are offering; all PJM is doing is enhancing the definition of the product to enforce that fundamental obligation of Capacity Resources.

3. **PJM Properly Employed the Stakeholder-Approved Enhanced Liaison Committee Process.**

A number of parties object to the stakeholder process used for consideration of the Capacity Performance proposal.\(^\text{18}\) As a threshold matter, the question before the Commission is whether the proposal is just and reasonable pursuant to section 205 of the Federal Power Act. PJM’s stakeholder process, which included the Enhanced Liaison Process was reviewed and approved by the Commission as part of PJM’s compliance

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\(^{18}\) *E.g.*, Allegheny at 3,5; Protest and Comments of Essential Power, LLC; Essential Power OPP, LLC; Essential Power Rock Springs, LLC; and Lakewood Cogeneration, L.P., Docket Nos. ER15-623-000, et al., at 5-6 (Jan. 20, 2015) (“Essential Power”).
with Orders 2000 and 745 and should not be relitigated in the context of a specific section 205 tariff filing.

The Enhanced Liaison Committee (“ELC”) stakeholder process used for the Capacity Performance matter was designed by the stakeholders themselves after considerable discussion. As PJM explained in the December 12 Filing, the ELC process is specifically intended for issues that have not been resolved, or are unlikely to be resolved, in the standard stakeholder process.¹⁹ Unlike the traditional stakeholder process that involves a series of stakeholder committee votes and efforts to reach a stakeholder consensus, the ELC process calls for direct decision-making by the PJM Board of Managers (“PJM Board”), following formal presentations to the Board by voluntarily assembled stakeholder coalitions. The Board elected the ELC process for the Capacity Performance proposal given valid concern that the standard stakeholder process could not resolve the inherently contentious issues in time for implementation before the May 2015 Base Residual Auction (“BRA”).

Some parties contend there was not enough process, but there was in fact ample opportunity for active stakeholder involvement, including direct engagement with the PJM Board. Indeed, PJM added to the process additional meetings and informational sessions beyond those specified in PJM Manual 34 for the ELC process.

Specifically, PJM staff developed and posted a capacity performance “problem statement” on August 1, 2014, which itself was the subject of discussion and modification at stakeholder meetings. PJM staff next prepared and posted a draft

proposed solution on August 20, 2014 and, following several stakeholder education meetings and feedback, an updated proposal on October 7, 2014. Stakeholders formed coalitions by October 21, 2014, and the coalitions prepared and posted briefing papers to describe their concerns and alternative approaches to the capacity performance question. The Board then heard oral presentations by most of those coalitions at a special ELC meeting on November 4, 2014. That meeting included follow-up questions and direct interactions between the PJM Board members and the coalition representatives, as well as a presentation to the Board by state regulatory commission representatives. At the conclusion of this process, the PJM Board met in early December, and authorized PJM to submit to the Commission the proposal reflected in this filing.

The ELC Process was appropriate here because 1) the Capacity Performance proposal concerned an issue on which consensus was likely to be elusive; and 2) capacity market reforms needed to be made in time for the May 2015 BRA. To the first point, Capacity Performance plainly is an issue on which consensus is elusive. Indeed, the strongly divergent opinions revealed by the dozens of protests and comments in this proceeding is a clear demonstration that the stakeholders were highly unlikely to reach a consensus on the correct approach to Capacity Performance.

As to the timing, because RPM secures capacity commitments on a three-year forward basis, RPM reforms, for the most part, can only take full effect on a three-year-forward basis. The next RPM BRA is scheduled for May 2015, and will secure capacity commitments for the Delivery Year that starts on June 1, 2018. If PJM deferred the Capacity Performance changes to the following BRA, held in May 2016 for the Delivery Year that starts on June 1, 2019, it would mean that the PJM Region would let nearly five years pass after 2014 without implementing a full remedy to the manifestly deficient
performance requirements in the current rules. The PJM Region’s experience with unacceptably poor performance last winter makes plain why PJM cannot take the risk of waiting.

B. Defining the Capacity Performance Resources as PJM Proposes Ensures that Capacity Resources Are Aware of, and Properly Accountable for, Performance When the Need for Performance Is at Its Greatest.

1. PJM’s Proposal Provides an Innovative Means for Renewable, Demand Response and Energy Efficiency Resources to Participate as Capacity Performance Resources.

Although certain public interest organization parties protest PJM’s proposal, PJM notes that the actual suppliers of renewable and energy storage resources recognize that PJM’s proposal to permit intermittent storage, demand response, and energy efficiency resources (“Intermittent/Storage/DR/EE”) to combine their capabilities offers a workable pathway for these resources to qualify as Capacity Performance Resources. Parties also recognize that the ability of these resources to receive revenues for superior performance provides a new revenue stream that does not exist under today’s capacity construct.

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20 PJM is proposing in this filing transitional rules for the Delivery Years for which a BRA already has been conducted. For those years, however, commitment of resources that can satisfy the expectation of delivery of energy and reserves whenever needed during emergencies is strictly voluntary.


22 Motion to Intervene and Comments of the American Wind Energy Association and Mid-Atlantic Renewable Energy Coalition, Docket Nos. ER15-623-000, et al., at 9 (Jan. 20, 2015) (“AWEA”) (“[W]e appreciate PJM offering the flexibility to couple resources and believe that option should be retained if PJM’s filing is approved with the proposed incentive structure . . . .”); Motion to Intervene and Comments of the Energy Storage Association, Docket Nos. ER15-623-000, et al., at 9-10 (Jan. 20, 2015) (“Energy Storage Association”) (“ESA strongly supports PJM’s proposal to allow aggregations of storage, intermittent, demand response and energy efficiency resources to combine their capabilities and offer as one resource into the capacity market.”).
PJM has repeatedly acknowledged\(^{23}\) the benefits of diverse capacity resources — including the valuable contribution of Intermittent/Storage/DR/EE resources to the reliability of the PJM system. Accordingly, the December 12 Filing incorporates several alternatives for Intermittent/Storage/DR/EE to continue to participate meaningfully in PJM’s capacity market, both during the transition to one hundred percent Capacity Performance Resources and after the transition.

a. **Intermittent/Storage/DR/EE Resources Can Submit a Coupled Offer as Both Base Capacity and Capacity Performance During the Transition 2018/2019 and 2019/2020 Delivery Years**

As discussed later in this Answer, PJM proposes a categorical exemption from the Capacity Performance must offer requirement for Intermittent/Storage/DR/EE resources. This does not mean an Intermittent/Storage/DR/EE resource may not offer as a Capacity Performance Resource, but, rather, during the transition while Base Capacity is still in effect, Intermittent/Storage/DR/EE is not required to offer as Capacity Performance to participate in the capacity market. Instead, such resources have flexibility to offer as either Capacity Performance, Base Capacity, or as a coupled offer comprising both Capacity Performance and Base Capacity.\(^{24}\) Similar to the FERC-accepted rules for coupled offers by the various, current types of Demand Resources (i.e., Limited, Extended Summer and Annual),\(^{25}\) a Capacity Market Seller owning or controlling a resource that qualifies as both Base Capacity and Capacity Performance may submit separate, but coupled, offers for such resource (with the Capacity Performance offer price being at least $0.01 per megawatt (“MW”) - day greater than the Base Capacity offer

\(^{23}\) *See* December 12 Filing at 33-34.

\(^{24}\) *See* proposed Tariff, Attachment DD, sections 5.6.1(g) & (h).

\(^{25}\) Tariff, Attachment D, section 5.6.1(e).
price) in an RPM Auction, and the PJM auction clearing algorithm will select the Sell Offer that results in the least-cost solution.\(^{26}\)

Commenters question how PJM will calculate performance for coupled offers.\(^{27}\) In response to FAQ 75,\(^{28}\) PJM provided additional clarity about how it will calculate Actual Performance to establish any applicable Non-Performance Charges for a resource which clears partly as Base Capacity and partly as Capacity Performance. That is, for a unit partially committed as Base Capacity and partially as Capacity Performance, during Performance Assessment Hours, the output of the unit will be attributed first to the Capacity Performance Resource performance requirement, and then any output over and above that quantity will be attributed to the Base Capacity Resource performance requirement. This method is appropriate because it recognizes the performance of the resource as the higher-valued Capacity Performance product first, and then attributes any remaining performance to the lower-valued, Base Capacity product.

\(^{26}\) See proposed Tariff, Attachment DD, sections 5.6.1(g) & (h).


\(^{28}\) Since the inception of the Enhanced Liaison Committee (“ELC”) process in August, 2014, PJM has maintained a document containing stakeholder questions and PJM Staff responses concerning the Capacity Performance proposal. This document is commonly referred to as the FAQ document. Even after PJM submitted the December 12 Filing, PJM Staff responded to numerous questions about the proposal and posted its responses at least once a week for all stakeholders to review and benefit from the PJM responses to questions of their fellow stakeholders. The FAQ document is available at: http://www.pjm.com/~/media/committees-groups/committees/elc/postings/capacity-performance-filing-faqs.ashx. PJM is explaining where applicable, and incorporating by reference into, this Answer, some of the specific FAQ responses which pertain to issues that have been raised with the Commission.
b. **Intermittent/Storage/DR/EE Resources Can Offer up to Their Expected Performance Based on Their Historical Performance**

While PJM proposed a way in which Intermittent/Storage/DR/EE resources may be combined to submit an aggregated offer as a Capacity Performance Resource (see section II.B.3), this is not the only way in which an Intermittent/Storage/DR/EE resource also can participate. Intermittent/Storage/DR/EE resources can offer as stand-alone resources. That is, PJM anticipates certain resources—such as (but not limited to) solar or wind generation—can offer a MW quantity on the basis of the average expected output of such a resource during peak-hour periods. In response to FAQ 122, PJM posted a spreadsheet showing how a 50 MW PC solar photovoltaic (“PV”) resource could offer 15 MW as a Capacity Performance Resource.\(^29\) The spreadsheet provides an example calculation for this approach based on the probabilistic expectation of the solar facility’s hourly average output on a monthly basis. The spreadsheet output of the resource is averaged over the reasonably expected hours in the summer and the winter when emergency conditions could occur on the PJM system. For the purposes of this calculation, those hours are defined as hours six through nine and eighteen through twenty-one in the months of January and February, and hours fifteen through twenty in the months of June, July, and August. Finally, the spreadsheet weights the average values in those hours of those months according to the number of days in each month and calculates an overall, expected average output for those identified hours. The result of the calculation is an annual, weighted average output of 15 MW, or 30 percent of the resource’s nameplate capability.

PJM recognizes that committing the plant as a Capacity Performance Resource at the 15 MW value would require the Capacity Market Seller to accept the risk that the resource’s output might be less than the committed Capacity Performance quantity during actual Performance Assessment Hours. Still, PJM believes this to be a reasonable method for determining a valid, Capacity Performance offer quantity for such a resource. As requested by Community Energy,\(^3\) PJM confirms the methodology for calculating Intermittent/Storage/DR/EE capacity values as expressed in FAQ 122, and PJM commits to incorporating this methodology in its manuals.

The proposed Tariff’s accommodation of stand-alone participation in RPM on a basis that recognizes an intermittent resource’s expected output during hours when emergency conditions could exist aligns the resource’s desire to participate as a Capacity Performance Resource with the risks of non-performance. This should alleviate AWEA’s concern\(^3\) about under-estimation of the value provided by wind generators, as each facility may offer the Capacity Performance quantity it believes it will be able to provide during emergency conditions. Moreover, as discussed in section II.C.3, below, such resources will be eligible for additional revenues during Performance Assessment Hours for actual energy they deliver over and above their committed quantities (i.e., “Bonus Performance”).

\(^3\) Motion to Intervene and Comments of Community Energy, Inc., Docket No. ER15-623-000, at 5-7 (Jan. 20, 2015) (“Community Energy”).

\(^3\) AWEA at 9-10.
c. **Intermittent/Storage/DR/EE Resources Can be Combined to Offer as a Capacity Performance Resource**

Yet another way in which Intermittent/Storage/DR/EE resources may continue to participate meaningfully in PJM’s capacity market is by combining with other Intermittent/Storage/DR/EE resources to submit an offer into an RPM Auction representing the aggregated Unforced Capacity value of such resources.\(^{32}\) As PJM explained in its December 12 Filing, aggregating resources such as a wind resource with a Capacity Storage Resource would maximize the value of both assets, providing reliability and controllability PJM must maintain during system emergencies.\(^{33}\) Thus, the aggregated offer option proposed in the filing allows resources to put together innovative arrangements that recognize and build on the seasonal or other intermittent capacity value of an array of resources in order to provide an integrated offering that provides year-round capacity availability, potentially matching or even exceeding the capability of traditional generation.

Through this Answer, PJM proposes a resolution to commenters’ concerns about PJM’s proposal to limit aggregation to resources within the same Locational Deliverability Area (“LDA”)\(^ {34}\) PJM has determined that it can permit aggregation across LDAs, and will include revised language to the PJM Open Access Transmission Tariff (“Tariff”), should the Commission so order, in a compliance filing to remove the “within the same LDA” restriction in Attachment DD, proposed section 5.6.1(h).

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\(^{32}\) See proposed Tariff, Attachment DD, section 5.6.1(h); December 12 Filing at 33-34.

\(^{33}\) December 12 Filing at 33.

Under this approach, PJM will deem the aggregated Capacity Performance Resource to reside, for RPM clearing and determining Non-Performance Charges and/or Performance Credits, in the LDA that is expected to be the least constrained. For example, if one resource is in the PSEG LDA, another in the EMAR LDA, and the third is in the MAR LDA, and it is expected that MAR will be the least constrained, the combined unit will clear with the MAR clearing price. Thus, if PSEG and EMAR do not bind in the auction, then the aggregated resource will receive the single clearing price applicable to the entire MAR LDA. Alternatively, if either PSEG or EMAR, or both LDAs, bind separately at higher clearing prices than MAR, the aggregated resource can still clear, but in the “highest level” LDA, in this example, MAR. Similarly, the combined unit will be subject to Non-Performance Charges or Performance Credits based on the combined unit’s performance if there are Performance Assessment Hours in the MAR LDA. The benefit of this approach is that Market Sellers seeking to aggregate resources will not need to know ahead of the auction which LDAs will actually bind.

Commenters also suggest PJM allow for aggregation among Intermittent/Storage/DR/EE resources and traditional generators, or even just among traditional generators. This proposal raises significant issues because, on its face, it could transform the RPM bidding process from an individual unit approach to a portfolio bidding approach. PJM has not engaged in a portfolio approach to RPM Sell Offers (or

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35 The LDAs of the PJM Region are defined in the RAA, Schedule 10.1.


37 PJM is not philosophically opposed to providing additional opportunities for aggregating Intermittent/Storage/DR/EE resources and traditional generation. However, rules would need to be developed to ensure that such an approach does
any of its other markets), for traditional generation resources in the past and it sees no reason to do so, except regarding seasonal resources which otherwise could not perform year-round. PJM anticipates most traditional generators are or will be able to offer as Capacity Performance Resources, albeit sometimes only after making project investments to ensure performance during the winter and summer peaks. As explained in section II.E.2, below, Capacity Resources can manage risk through netting over-performance to mitigate against incurring a Non-Performance Charge for under-performance. Unlike PJM’s desire to provide an avenue to a resource which otherwise may not be able to participate because it has too high a risk of non-performance during either the winter or summer peak periods, there is no similar reason to allow traditional generators to combine in offering into an RPM Auction. However, to the extent such resource is more akin to an Intermittent Resource than a traditional generator or with another environmentally limited generator, PJM could consider allowing an environmentally limited resource to aggregate with Intermittent/Storage/DR/EE resources. Specifically, a traditional generation resource that is environmentally limited as a result of government regulation, and which therefore could not otherwise offer as a Capacity Performance Resource, could potentially aggregate with another such limited resource or an

not invite capacity withholding or otherwise undercut the unit-specific (as opposed to portfolio) bidding requirements of RPM. Because of these complexities, PJM believes allowing aggregation involving Intermittent/Storage/DR/EE resources and environmentally limited generation units is an appropriate first step, as the marketplace gains experience with such aggregations in the Capacity Performance context. PJM is willing to commit to review the feasibility of accommodating additional aggregation opportunities in RPM, and, as appropriate, to refine its rules on aggregation of resources for the 2016 BRA and beyond. This approach will allow all stakeholders to gain experience with the aggregation rules outlined above for the 2015 BRA, and thus will inform that subsequent review.
Intermittent/Storage/DR/EE resource in order to submit a valid Capacity Performance offer.

Finally, some commenters raised concerns that PJM proposes to require that Capacity Resources offered into RPM as combined resources must be from the same company. For instance, Essential Power is concerned that companies with small portfolios may be forced out of the market. PJM clarifies that, while its references to aggregating resources of a “Capacity Market Seller” which could be understood to mean only resources from a single company, that is not PJM’s intention. Often, a Capacity Market Seller’s account for offering into RPM contains not only its own resources, but also those for which it has marketing responsibilities through bilateral agreements with other PJM members (or with non-PJM members). To the extent these arrangements are reflected in PJM’s systems through the recording of these bilateral transactions, PJM would consider those resources to be in the same portfolio and therefore would account for their performance as if they were of the “same company.”

2. **PJM Appropriately Proposes to Set Forth in Its Tariff an Expectation of Performance In Addition to the Increased Non-Performance Charges) In Lieu of Stating Unit-Specific Eligibility Requirements.**

In lieu of prescribing detailed eligibility requirements as part of its Capacity Performance Proposal, PJM determined that performance obligations, Non-Performance Charges, and bonus Performance Credits would provide sufficient incentives for Capacity Market Sellers to ensure their Capacity Resources would provide energy and reserves (or,

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as applicable, load reductions) when needed during emergency conditions. Accordingly, PJM has proposed a “no excuses” construct similar to the approach the Commission accepted for ISO New England.39

Some intervenors challenge PJM’s proposal, contending the representation requirement is confusing,40 or that the lack of clear eligibility criteria provides no reasonable assurance that resources will invest in fuel security improvements or that performance will improve, and will contribute to price suppression in RPM.41 One commenter suggests PJM add fuel security requirements as PJM proposed in an earlier draft of its Capacity Performance proposal.42 Another asserts it may be impossible to make the required representation,43 and another claims requiring a representation is unnecessary for PJM to ensure performance.44

Contrary to these arguments, PJM’s approach strikes the right balance of ensuring Sell Offers are backed by physical resources that will meet the Capacity Performance objectives without pre-defining for every conceivable type of facility what a resource

39 See ISO-NE Pay for Performance at PP 63-64.
43 Brookfield at 5-7.
must do to meet such Capacity Performance obligations. Therefore, the Commission should accept PJM’s proposed tariff, with the suggested modifications described below.

a. A Detailed List of Eligibility Requirements Could Hamper Innovations as PJM May Not Be Able to Contemplate Every Action a That Would Enable Capacity Market Seller’s Could Take to Ensure Its Resources to Meet Capacity Performance Obligations

In the early stages of developing the Capacity Performance proposal, PJM considered including a detailed list of eligibility requirements to be a Capacity Performance Resource. However, after discussions with stakeholders and feedback through the ELC process, PJM came to realize this aspect of its proposal could hinder participation by, and perhaps suppress innovation of, Capacity Resources in PJM’s RPM market. PJM further noted the Commission’s approval of ISO New England’s model, which depends on a strict penalty structure in lieu of a list of performance requirements.

At the same time, however, PJM and the loads that will rely on resource commitments in RPM are entitled to some assurance that Capacity Market Sellers have a full understanding of the obligations they are offering to undertake by submitting a Sell Offer, and with the unqualified intention that each resource they offer will be physically capable of meeting the Capacity Performance standards by the start of the relevant Delivery Year. PJM therefore included in the December 12 Filing proposed Tariff language making clear that each Sell Offer for a Capacity Performance Resource will be considered a representation of such understanding and intent.

Commenters have raised a number of questions in this area, particularly about whether the degree of flexibility PJM is proposing provides adequate assurance on the

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critical question of fuel security for generation resources, and on whether the proposed Tariff language provides enough notice concerning how PJM will exercise its authority to review and reject Sell Offers for resources that PJM concludes will be unable to meet the performance obligations. Demand response interests also raise concerns that PJM’s proposed representation could operate as a barrier to entry for Demand Resources. Upon review of these comments, in the event the Commission finds that additional clarity is warranted in this respect, PJM believes it can strike the right balance between seller flexibility and adequate performance assurances by (1) confirming that Demand Resources are not required to go beyond the requirements, including the “reasonable expectation” standard previously established in the DR Sell Offer Plan proceeding,46 and (2) adding to the required representation some guideposts for fossil-fueled generation resources, using as a starting point language suggested by the PJM Utilities Coalition.

Specifically, PJM respectfully suggests revising the proposed section 5.5A(a)(i) of Attachment DD of the Tariff to add the following new subparagraphs E and F:

In submitting a Sell Offer for a Capacity Performance Resource in an RPM Auction for a Delivery Year, a Capacity Market Seller is representing that it:

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E. to the extent the Capacity Performance Resource is not an Intermittent Resource, Capacity Storage Resource, Demand Resource or Energy Efficiency Resource, has obtained and holds, or reasonably expects to obtain and hold, the contractual and other rights necessary to ensure firm fuel supply to each of its affected units during the Delivery Year. For such purpose, units intending to rely on on-site fuel storage must be able to demonstrate, as needed, the basis for their reasonable expectation that such arrangements as may be necessary to replenish the on-site fuel on a rolling basis will be in place by the start of the Delivery Year in order to assure unit performance at all times throughout such

46 See PJM Interconnection, L.L.C., 146 FERC ¶ 61,150 (2014).
Delivery Year; and units not intending to rely on on-site fuel storage must be able to demonstrate, as needed, the basis for their reasonable expectation that sufficient transmission, storage and fuel commodity supply contracts or arrangements will be in place by the start of the Delivery Year to assure unit performance at all times throughout the Delivery Year.

F. to the extent the Capacity Market Seller proposes to offer a Demand Resource as a Capacity Performance Resource, the representation in this subsection shall not be read to impose any greater, or lesser, obligation on a Capacity Market Seller offering a Demand Resource into an RPM Auction than is established by Section A.1 of Schedule 6 to the RAA, or any officer certification provided thereunder.

PJM asks the Commission to reject LS Power’s alternative proposal that would require only those resources without a must-offer requirement to make the required representation. If a resource that otherwise has a must-offer requirement cannot make this representation because it physically is not capable of being a Capacity Performance Resource at the commencement of the relevant Delivery Year, it should seek a must-offer exception. This appropriately puts the risk on Capacity Market Sellers regarding whether they can meet the Capacity Performance requirements. It also provides an oversight function to ensure that PJM does not allow purely speculative offers or participants “rolling the dice” on the bet there will be no emergency conditions, which in turn could preclude the clearing of other resources that would be more reliable. If a resource makes a false representation at the time of its offer (as opposed to later on when a legitimate replacement may be necessary), such Capacity market Seller would be subject PJM and FERC’s Market Rules.

One commenter generally supports PJM’s approach but asserts the representation concerning the physical nature of the offer could erect a barrier for Demand Resources.\footnote{PaPUC at 14-17.}
As explained above, PJM did not intend to replace in the Capacity Performance proposal the Demand Resource Sell Offer rules, and is willing to revise the proposed Tariff language to confirm this, as described above.

Brookfield expresses concern that, as a hydroelectric resource, it could not make a representation that it could perform during all hours of a Delivery Year. PJM is not asking for operation during all hours of a Delivery Year; rather, PJM’s proposal asks resources be capable of delivering energy and reserves when needed, including during emergency conditions. As PJM pointed out to Brookfield in response to FAQ76, a resource must understand it is taking on some risk when it chooses to participate in PJM’s capacity market.

UGI’s concern that all single-fueled resources behind a local gas distribution company (“LDC”) will be precluded from participating as a Capacity Performance Resource is misplaced. The situation described by UGI is exactly why PJM did not create a list of eligibility requirements. There may be legitimate ways in which a single-fueled gas resource behind an LDC can meet the performance obligations of a Capacity Performance Resource with little risk of being curtailed in emergency situations. PJM recognizes it would be impossible to predict all of the scenarios to develop a workable eligibility list. As noted in subsection II.B.3 below, if PJM has reason to question how a resource intends to meet its obligations, it will request additional information at the outset

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48 PJM Interconnection, L.L.C., 146 FERC ¶ 61,150 (2014), reh’g pending.
49 Brookfield at 7.
50 UGI at 10-11.
and will work with the Capacity Market Seller to understand why that seller believes it can meet the Capacity Performance requirements.

b. The Requirement That External Resources Be Pseudo-Tied to PJM Is Just and Reasonable Given the Underlying Goals of Capacity Performance and the Need to Have Operational Awareness of All Capacity Resources Which Are Capacity Performance Resources

PJM proposes that external resources meet the criteria to obtain an exception from the Capacity Import Limit (“CIL”) PJM implemented starting with the Base Residual Auction (“BRA”) for the 2017/2018 Delivery Year. An external resource must commit to a capacity must offer requirement, and to being pseudo-tied to PJM by the relevant Delivery Year before it can offer into an RPM Auction. Two commenters protest this proposal, claiming this requirement would act as a barrier to participation in PJM’s capacity market and would exacerbate seams issues between PJM and adjacent regions.51

Contrary to these protests, PJM’s proposal is just and reasonable. PJM requires external resources to be on equal footing with internal resources regarding operational flexibility and observability. PJM must be able to see what these resources are doing during the Operating Day. PJM can do so if the resource is pseudo-tied to the PJM system. In fact, the quantity of CIL exception requests PJM has received (and, in turn, the number of MWs that have committed to be pseudo-tied to PJM) belies ICC and AMP’s concerns that PJM’s proposal creates a barrier to entry or exacerbates seams. PJM granted 4,776 MW of external resources a CIL exception last year, and it has over 2,300 MW of additional requests under evaluation for this year, demonstrating that these requirements are not an unreasonable obstacle to external resources’ participation as PJM Capacity Resources.

51 AMP/ODEC/SMEC 68-70; ICC at 5-7.

PJM believes the representation element of its proposal is just and reasonable, and will go a long way to ensure Capacity Market Sellers are aware of, and explicitly acknowledge, the performance obligation to which they will be subject should they clear an RPM Auction. However, it is also important for PJM to have the ability to further review a Capacity Market Seller’s circumstances and even prohibit a Capacity Market Seller from being eligible to submit a Sell Offer in RPM. Commenters’ arguments that this grants PJM too much discretion arbitrarily to disqualify existing Capacity Resources from being Capacity Performance Resources ignore the existing tariff language which already constrains PJM’s discretion and would be carried through to CP resources.

a. PJM Currently Has to Reject an Offer Based on the Circumstances; the Proposed Tariff Language Is Intended to Flesh out That Requirement

PJM has the ability under its current Tariff to reject a Sell Offer if, based on information available to it, it believes the resource should not be considered a Capacity Resource in RPM. Nevertheless, in developing its Capacity Performance Proposal, PJM determined that, for transparency sake, it was important to include this oversight

52 See proposed Tariff, Attachment DD, section 5.5A(a)(ii)(A).
54 E.g., Tariff, Attachment DD, sections 5.6.6. & 5.8(i).
provision—particularly since it is not possible to state all eligibility requirements in the Tariff, as explained above. PJM has no reason, and does not intend unnecessarily or arbitrarily, to prevent Capacity Resources from participating in RPM. To the contrary, PJM wants Capacity Resources to participate as Capacity Performance Resources and has deliberately included a glide path in proposing a reasonable transition period to reach its ultimate goal. Nevertheless, it is entirely reasonable to include a provision for PJM to ask for additional information if it is not clear to PJM how a particular Capacity Market Seller could meet the Capacity Performance obligations by the relevant Delivery Year. PJM does not plan to wait until the last minute to work with Capacity Market Sellers in understanding their circumstances and obtaining additional information regarding the basis for a particular offer. In fact, PJM has already begun having such conversations with market participants and with the IMM.

b. The Independent Market Monitor Does Not Need to Have Independent Ability To Review and Reject a Sell Offer

While PJM’s proposal calls for PJM to consult with the Independent Market Monitor (“IMM”) and seek the IMM’s advice and recommendations concerning Sell Offers, some commenters believe the IMM should have authority to reject an offer in its own right. However, PJM’s proposal is just and reasonable, and should not be modified in this respect. PJM’s proposal strikes a balance to allow the IMM to provide input in the analysis of a questionable offer, but not a separate layer of review. This

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55 See proposed Tariff, Attachment DD, section 5.5A(a)(ii).

process is consistent with the Commission’s Order No. 719, under which PJM is responsible for prospective mitigation, such as accepting or rejecting a Capacity Market Sell Offer. PJM will take into consideration the IMM’s input and recommendations, but the final decisions must be PJM’s, as proposed.

C. PJM’s Proposal for the Transition to 100 Percent Capacity Performance Resources Is Just and Reasonable.

The goal of PJM’s December 12 Filing is to migrate to a 100 percent Capacity Performance Resource market beginning with the 2020/2021 Delivery Year. To accomplish this, PJM proposes a five-year transition period, during which PJM gradually will increase the proportion of Capacity Performance Resources in its RPM procurements, and will correspondingly phase out the existing Capacity Resources and the new, interim Base Capacity Resource product that PJM proposes for Delivery Years 2018/2019 and 2019/2020.

Through proposed Capacity Performance Transition Incremental Auctions (“CP Transition IAs”), PJM proposes to procure Capacity Performance Resources for 2016/2017 of up to 60 percent of the Reliability Requirement, and then

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58 Base Capacity Resources will be Capacity Resources that cannot perform as Capacity Performance Resources in the 2018/2019 and 2019/2020 Delivery Years. With the exception of Base Capacity Demand Resources (available only during June through September) and Base Capacity Energy Efficiency Resources (available only during June through August), Base Capacity Resources will be expected to be available throughout the Delivery Year. However, Base Capacity Resources will be subject to a Non-Performance Charge only when they fail to perform under emergency conditions during June through September. See December 12 Filing at 26.
incrementally shift to 70 percent Capacity Performance Resources for 2017/2018, and to approximately an 80/20 Capacity Performance/Base Capacity Resource mix for the final two transition years.\textsuperscript{59}

1. \textit{PJM’s Proposed Five-Year Transition Period Is Appropriate.}

PPL contends that PJM has not justified its proposed five-year transition to 100 percent procurement of Capacity Performance Resources,\textsuperscript{60} and asks the Commission to require PJM to eliminate the interim, Base Capacity Resource product from PJM’s proposed RPM reforms. PPL argues that there is no reason to permit Base Capacity Resources to participate in RPM Auctions for any Delivery Year for which a BRA has not already been held, because the three-year forward character of RPM, of itself, allegedly provides sufficient time for Capacity Market Sellers to make any investments or operational adjustments they may require to meet the Capacity Performance requirements. For support of its positions, PPL points to the Commission’s acceptance of ISO New England’s change to a single capacity product with no transition period.\textsuperscript{61}

PPL’s protest boils down to an argument over whether three years or five years is the “best” duration for the transition to a capacity market comprised entirely of the Capacity Performance Resource product. But PJM’s burden in this section 205 proceeding is only to establish that its proposal is just and reasonable. It does not have to show that alternative approaches are unjust and unreasonable, or even that other options

\textsuperscript{59} The actual resource splits for the 2018/2019 and 2019/2020 Delivery Years will be determined by the Base Capacity Resource Constraint see December 12 Filing at 69-71, and will be posted with the auction parameters.

\textsuperscript{60} December 12 Filing at 27-29.

\textsuperscript{61} See PPL at 6-8.
have less merit than PJM’s proposal.\footnote{See, e.g., Cities of Bethany v. FERC, 727 F.2d 1131, 1136 (D.C. Cir. 1984).} PPL fails to demonstrate that PJM’s proposed five-year transition, with steadily increasing targets for procurement of Capacity Performance Resources, is unjust and unreasonable in any respect.

Moreover, contrary to PPL’s suggestion, the Commission’s acceptance of ISO New England’s immediate implementation of a single capacity product does not establish any flaw in PJM’s approach. The Commission directed ISO New England to implement its single-product market immediately because it could not find that “a proposal that purports to address immediate resource performance problems but does not provide an increased performance incentive for the next four years is a just and reasonable solution.”\footnote{ISO New England, Inc., 147 FERC ¶ 61,172, at P 23 (2014) (“ISO-NE Pay for Performance”), reh’g pending.} PPL demonstrates no basis for a similar decision regarding the December 12 Filing. PJM’s five-year transition proposal provides an immediate and steadily increasing solution to the reliability concerns of the PJM Region, and appropriately balances (i) the investments and time required to enable resources to meet the operational and performance requirements of Capacity Performance Resources, (ii) consumers’ interest in avoiding a potentially sharp increase in capacity prices, and (iii) the need to ensure resource adequacy and system reliability.\footnote{See December 12 Filing at 28-29.} PPL demonstrates no error in PJM’s reasoning. Therefore, the Commission should reject PPL’s objection to PJM’s proposed five-year transition to a 100 percent Capacity Performance resource mix.

PJM’s proposal to facilitate the transition to full reliance on Capacity Performance Resources in the 2020/2021 Delivery Year by conducting CP Transition IAs to procure limited amounts of Capacity Performance Resources for the 2016/2017 and 2017/2018 Delivery Years\(^{65}\) finds both support and opposition among the intervenors. This in and of itself indicates that PJM’s proposal strikes a just and reasonable balance among diverse, competing interests. Scrutiny of the protests underscores that conclusion.

PJM agrees with the Steel Producers that a transition period is a prudent component of PJM’s proposal. PJM’s proposed, gradual ramp-up to 100 percent Capacity Performance Resources under the modified offer caps and other elements of the CP Transition IAs will mitigate concerns that capacity prices could rise significantly if not enough Capacity Performance Resources are presently available to meet the transitional procurement targets. In addition, starting the transition promptly, as PJM proposes, makes the performance incentives of Capacity Performance effective immediately (in part) and thereby will provide owners of generation and other resources an immediate incentive and sufficient time to plan, finance, and implement or construct

\(^{65}\) Base Residual Auctions have already been conducted for the 2016/2017 and 2017/2018 Delivery Years. In the Transition Incremental Auctions, PJM proposes to procure up to 60 percent of the PJM Region’s Reliability Requirement (as adjusted at the time of the transition auction) for 2016/2017, and up to 70 percent of the adjusted Reliability Requirement for 2017/2018. The Transition Incremental Auctions will be voluntary for capacity resources that are capable of meeting the requirements and accepting the performance risks of Capacity Performance Resources (i.e., no must-offer requirement), will be conducted under modified offer caps, and resources that clear them will be subject to similarly modified Non-Performance Charges. *See* proposed Tariff, Attachment DD, section 5.14D. PJM proposes to conduct the CP Transition IAs in April and May, 2015.
improvements (e.g., control systems, dual fuel capability, firm gas transportation services, etc.) they will need to meet the operational and performance requirements of Capacity Performance Resources. Ramping up the required quantity of Capacity Performance Resources over five years, as PJM proposes, also should mitigate potential price volatility or shortage concerns that might result from an immediate jump to requiring 100 percent Capacity Performance Resources. The other factors already driving changes in the generation fleet in particular—compliance with the U.S. Environmental Protection Agency’s (EPA’s) Mercury and Air Toxics Standards (“MATS”) emission rules beginning in 2015 and EPA’s pending Clean Power Plan underscore not only the uncertainty about the current availability of sufficient Capacity Performance Resources, but also the prudence of contemporaneously providing incentives to Market Sellers to combine with their environmental compliance investments the plant modifications or improvements they may need to undertake Capacity Performance obligations and risks.

Much of the opposition to the CP Transition IAs is premised on the fact that BRAs already have been held for the 2016/2017 and 2017/2018 Delivery Years. For example, RESA claims that paying higher CP Transition IA clearing prices to resources

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See 40 C.F.R. Parts 60, 63; see also The Commission’s Role Regarding the Environmental Protection Agency’s Mercury and Air Toxics Standards, 139 FERC ¶ 61,131, at PP 5, 8, 13 (2012) (acknowledging reliability issues which might arise due to generation retirements prompted by emissions standards).

that already have cleared in an RPM Auction for the same year is unlawful retroactive ratemaking and violates the filed rate doctrine.\textsuperscript{68} But RESA overlooks that the CP Transition IAs are for the procurement of a new capacity product, Capacity Performance Resources, one for which no price has yet been established in any RPM Auction. Moreover, the Commission on numerous occasions has rightfully rejected the same argument regarding other post-auction changes in RPM rules, cogently explaining in a recent order that “[t]he fact that PJM runs a capacity market with three-year commitments does not freeze all changes to PJM’s tariff for the three-year period covered by the auction.”\textsuperscript{69} Contrary to RESA’s assertion, therefore the proposed CP Transition IAs present no issue regarding the filed rate doctrine or retroactive ratemaking.

Pursuing a related, but equally flawed theme, Transition Coalition argues that the proposed transition mechanism ignores potentially less costly alternatives, and will unnecessarily pay generators more for capacity commitments they have already made, but purportedly with no offsetting benefits.\textsuperscript{70} While it may be reasonable to expect a higher auction clearing price for Capacity Performance Resources, the commitment such resources will undertake differs considerably from the commitment of Capacity Resources that have already cleared in RPM Auctions for the 2016/2017 and 2017/2018 Delivery Years. Most importantly, Capacity Performance Resources that clear in the

\textsuperscript{68} Motion to Intervene and Protest of the Retail Energy Supply Association, Docket No. ER15-623-000, at 9-12 (Jan. 20, 2015) (“RESA”).


transition auctions will risk paying Non-Performance Charges in the event their Actual Performance falls short of their Expected Performance during emergency conditions (Performance Assessment Hours). With the appropriate modifications of Non-Performance Charges and the Stop-Loss provisions that PJM has proposed, the CP Transition IAs are a reasonable, market-based solution to begin acquiring Capacity Performance Resources – and to begin incenting suppliers to make themselves capable of offering more such resources – in a manner that will mitigate potential price increases. As the Ohio Commission observes: “[t]hese transition tariff revisions are just and reasonable, as they not only reflect higher performance obligations to promote system reliability on an expedited basis, but also provide sufficient time for generation units to implement unit improvements.”\(^71\)

According to Invenergy, “fairness dictates that PJM first provide the opportunity to satisfy PJM’s Capacity Performance Resource needs” to resources that previously cleared in RPM Auctions for the 2016/2017 and 2017/2018 Delivery Years.\(^72\) Invenergy fails to justify such a preference. Participation in the CP Transition IAs is entirely voluntary. Thus, any previously cleared resource that is unwilling or unable to assume the obligations and risks of a Capacity Performance Resource for the 2016/2017 and/or 2017/2018 Delivery Years may sit out the CP Transition IAs, and its existing commitment(s) will be honored. Moreover, should any previously cleared Capacity

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\(^{72}\) Motion to Intervene and Comments of Invenergy Wind Development LLC and Invenergy Thermal Development LLC, Docket No. ER15-623-000, at 12 (Jan. 20, 2015) (“Invenergy”).
Resource elect to participate in a CP Transition IA, but fail to clear as a Capacity Performance Resource, its existing RPM commitment will be unaffected. However, there is no reason to insulate previously cleared Capacity Resources from the risk that one or more resources which failed to clear in a previous RPM Auction may clear as a Capacity Performance Resource in a CP Transition IA.

LS Power contends that PJM should modify the Tariff to provide that, in the Scheduled Incremental Auctions for the 2016/2017 and 2017/2018 Delivery Years, Capacity Market Sellers may purchase replacement Capacity Performance Resources. This proposal, while not unreasonable, is not feasible. The new Capacity Performance product is not directly substitutable for the existing capacity product, and is not subject to all of the same constraints that apply to the existing Capacity Resource product for the transition years. Therefore, replacements of Capacity Performance Resources cannot be integrated into the Scheduled Incremental Auctions. However, bilateral transactions consistent with the PJM Tariff will be available for procuring replacement Capacity Performance capacity.

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73 See December 12 Filing at 81-82 ("The reforms that PJM is proposing in this filing will not involuntarily affect any capacity commitments made for the 2015/2016, 2016/2017, and 2017/2018 Delivery Years. . . . However, as discussed, Capacity Market Sellers may voluntarily elect to offer in to a Capacity Performance Transitional Incremental Auction to convert their existing Generation Capacity Resource capacity commitments to Capacity Performance Resources for the 2016/2017 and 2017/2018 Delivery Years.").

74 In any event, while not impossible, Invenergy’s suggestion that a Capacity Resource which failed to clear in a previous auction would be able to offer and clear as a Capacity Performance Resource in one of the CP Transition IAs seems improbable.
Direct Energy urges the Commission to reject PJM’s transition proposal, and to require a stakeholder process to determine an alternative to the CP Transition IAs. But the delay associated with awaiting the outcome of a stakeholder process and subsequent Commission review of any resulting proposal would be counterproductive. By the end of that process, there may be insufficient time for resources to implement any facility improvements needed to ensure they can meet the Capacity Performance requirements prior to the affected Delivery Years. That, in turn, could make it infeasible for PJM to rely on market mechanisms to acquire Capacity Performance Resources for the 2016/2017 and 2017/2018 Delivery Years. Accordingly, deferring the proposed CP Transition IAs to await the outcome of a stakeholder process would not serve the public interest in ensuring reliable electric service through resource adequacy.

Exelon and PJM Utilities Coalition argue for increasing the target amounts of Capacity Performance Resources (as percentages of the applicable, adjusted Reliability Requirements) and offer caps in the CP Transition IAs. These contentions underscore the point that PJM’s reasoned, incremental approach to the transition fairly balances uncertainty about resource availability, reliability considerations, and potential cost increases to consumers and Load Serving Entities (“LSEs”). Exelon and PJM Utilities Coalition do not address whether there may be insufficient resources capable of meeting the Capacity Performance criteria to enable PJM to procure the proposed transition target amounts of Capacity Performance Resources, much less the higher targets Exelon and PJM Utilities Coalition advocate. But, the faster implementation of Capacity Performance that Exelon and PJM Utilities Coalition seek would risk significantly higher clearing

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75 Direct Energy at 7-15.
prices in the CP Transition IAs relative to the BRA clearing prices for the affected Delivery Years without a concomitant assurance new and existing resources would be able in that timeframe to make the investments necessary to meet the Capacity Performance Resource requirements. The analysis of Exelon and PJM Utilities Coalition on this point is entirely speculative and invites the Commission to substitute an analysis of theoretical possibilities for a well-considered transition plan that balances reliability needs with the commercial realities affecting resources that may require sizable investments, for example, in fuel assurance capability. Unlike PJM’s transition proposal, the approach of Exelon and PJM Utilities Coalition falls short of fairly balancing the interests of consumers and capacity sellers.

3. *Base Capacity Resources Should Be Removed from RPM After the 2019/2020 Delivery Year*

In contrast to PPL’s opposition to any transitional reliance on Base Capacity in RPM Auctions, several other parties oppose PJM’s proposal to eliminate the Base Capacity Resource product commencing with the 2020/2021 Delivery Year. Most of these complaints are based on the assertion that continuing to procure Base Capacity Resources for a portion of the PJM Reliability Requirement would provide a more economical mix of capacity for the PJM Region.\(^\text{76}\) In addition, one protesting party contends that PJM’s approach unduly discriminates against renewable and Demand Response Resources that cannot provide year-round availability,\(^\text{77}\) while another claims


\(^{77}\) PIOs at 12-13.
the elimination of Base Capacity Resources is contrary to long-standing resource planning principles emphasizing the value of a diverse resource mix.\textsuperscript{78}

Taking the latter claims first, the common core of such assertions is, if not a misunderstanding of PJM’s proposal, at least an unreasonably narrow view of its features. First, as PJM explained in section II.B, above, there are several ways in which Intermittent/Storage/DR/EE Resources can participate in a meaningful way in the reformed RPM market. Second, PJM’s Capacity Performance proposal does not unduly discriminate against renewable and other intermittent (generation or demand response) resources. The Commission rejected the same argument when it approved ISO New England’s pay-for-performance capacity market rules, and should do so for the same reason here:

Under ISO-NE’s proposal, resources are compensated without regard to technology type. To the extent resources have different capabilities to provide energy and reserves during a Capacity Scarcity Condition, those resources are not similarly situated, and therefore it is not unduly discriminatory to compensate those resources differently based on their respective capabilities.\textsuperscript{79}

The same, technology-neutral feature of Capacity Performance undermines the claim that phasing out Base Capacity Resources will preclude a diverse resource mix for the PJM Region. Capacity Performance, in fact, treats renewable and demand response resources

\textsuperscript{78} Protest of Joint Consumer Representatives, Docket Nos. ER15-623-000, et al., at 8-11 (Jan. 20, 2015) ("Joint Consumer Representatives").

\textsuperscript{79} ISO-NE Pay for Performance at P 86. The Capacity Value of an intermittent resource in PJM is the amount of generating capacity it can reliably contribute during summer peak hours, and which can be offered as unforced capacity into RPM. See PJM Manual 21: Rules and Procedures for Determination of Generating Capability, PJM Interconnection, L.L.C., at 17 (Mar. 5, 2014), http://www.pjm.com/~media/documents/manuals/m21.ashx.
the same as all other providers of capacity. That particular resources may be able to commit only to capacity obligations less than their nameplate output ratings indicates no flaw in PJM’s proposal. Instead, that outcome results from the operational characteristics of the resource itself. Moreover, as noted in section II.B.1 above, renewable and other intermittent resources will be able to participate as Capacity Performance Resources either by offering (similar to today) their discounted Capacity Value or by combining with other resources to offer the aggregated, complementary Unforced Capacity of the combination.

Further, contrary to the protestors’ claims, eliminating Base Capacity Resources commencing with the 2020/2021 Delivery Year will not cause RPM prices to become unjust and unreasonable. The RPM reforms PJM proposes here are a package that, in the aggregate, will provide greater reliability for all consumers, as well as transparency to all Market Sellers regarding the costs and penalties associated with clearing in the RPM Auctions as a resource that is, in fact, capable of contributing to a resource adequacy for the PJM Region. In short, under Capacity Performance, the reliability value of every resource that clears in the RPM Auctions will be reflected by the net revenues it earns under the pay-for-performance market rules. The Commission has observed that a pay-for-performance market structure thus should be beneficial to wind and solar resources, “because they are predictably variable and necessarily have nameplate capacity exceeding their Capacity Value.” PJM’s experience bears this out: During the polar vortex of January 2014, for example, many wind resources in the PJM Region produced

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ISO-NE Pay for Performance at P 86.
energy well in excess of their rated capacity,\textsuperscript{81} and many demand response Capacity Resources voluntarily reduced their loads at PJM’s request, even though they were not obligated to do so.\textsuperscript{82}

Intermittent and Demand Response Resources unquestionably must accept the same performance risk as all other resources under the Capacity Performance paradigm. However, this risk can be managed though coupling with other resources, or by managing the performance requirement through a portfolio of resources. Most importantly, however, Intermittent Resources will have access to an enhanced revenue stream under the Capacity Performance proposal in the form of Performance Payments for delivery of energy in excess of their capacity commitment during system emergencies.

The following representative example highlights the importance and value of this enhanced revenue stream. Under today’s capacity construct, a wind farm with nominal capacity of 100 MW will generally commit at a 13 percent capacity factor. Assuming a capacity clearing price of $120/MW-day, the facility’s annual revenue stream (excluding energy and ancillary services markets) would be $(13 \text{ MW} \times \$120/\text{MW-day} \times 365 \text{ days}) = $569,400.


\textsuperscript{82} On January 7 and 8, 2014, Demand Response Resources delivered maximum hourly load reductions of 2,379 MW and 1,179 MW, respectively. PJM Demand Response Activity January 7-8, 2014, PJM Interconnection, L.L.C., 2, 3 (Mar. 26, 2014) http://www.pjm.com/Media/markets-ops/demand-response/pjm-cold-days-report-for-january-7-8-2014.pdf. Because the resources were dispatched outside their normal, summer capacity availability window, these load reductions were measured based on emergency energy reductions (customer baseline approach), rather than based on capacity compliance (firm service level approach).
Under Capacity Performance, the same 100 MW wind farm may choose to commit at only 5 MW capacity because of the performance risk. Assuming a higher RPM clearing price of, say, $175/MW-day, the wind farm’s annual capacity payment would be 

\[(5 \text{ MW} \times \$175/\text{MW-day} \times 365 \text{ days}) = \$391,375\].

However, the wind farm would also receive Bonus Performance credits for any compliance hours (Performance Assessment Hours) when its energy output exceeds its capacity commitment, i.e., when it produces energy in excess of 5 MW.83 As noted, PJM has observed that wind resources tend to perform well above their capacity commitments during winter peak periods. Thus, assuming the 100 MW wind farm produced 35 MW during a winter Performance Assessment Hour (still well below its nominal 100 MW maximum capability), it would receive a Capacity Performance Payment for the 30 MW of over-performance. The Bonus Performance payment rate is expected to be approximately $4000/MWh, so the wind farm’s capacity performance revenue for that single compliance hour would be 

\[(30\text{MW} \times \$4000) = \$120,000\].

Conservatively assuming 8 compliance hours during a winter period, and average output of the same 35 MW during those hours, the increased revenue for the over-performing wind farm would be \((\$120,000 \times 8) = \$960,000\). That would bring the wind farm’s total annual revenues under Capacity Performance to 

\[(\$391,375 + \$960,000) = \$1,351,375\], substantially more than its capacity revenues under the current RPM regime. In fact, this kind of result suggests that the wind farm could choose to forgo any capacity commitment (and capacity payments), and still be better off than it is today from a revenue perspective, based only on the revenues it could receive

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83 See December 12 Filing at 40 (“A resource with Actual Performance above its Expected Performance is considered to have provided Bonus Performance, and will be assigned a share of the collected Non-Performance Charge revenues.”).
for over-performance during Performance Assessment Hours. Accordingly, phasing Base Capacity Resources out of RPM is justified, and is not unduly discriminatory.

Other protestors argue that, because PJM is a summer peaking system, there is no need to change to only a single, annual capacity product and, therefore, assert that Base Capacity should be retained. But these claims fail to come to grips with the fundamental meaning of capacity for purposes of ensuring resource adequacy: *when called upon during an emergency, all capacity resources should provide energy and reserves to the extent of their respective capacity commitments.* Base Capacity, by definition, does not meet this standard. Retaining Base Capacity, therefore, would merely perpetuate (albeit only for some resources) the lack of sufficient incentives for resource performance that experience teaches is the fundamental flaw of the current Capacity Resource construct.

There are fundamentally two ways to bring into RPM the various types of resources that can contribute to the resource adequacy needs of the PJM Region: (1) define multiple capacity products, effectively segmenting the capacity market and setting different prices recognizing the various capabilities of each kind of resources, or (2) define a single product, and allow market participants to develop new resources or combinations of existing resource types with varying capabilities to provide the market with that single capacity product. PJM has followed the road of multiple capacity products for several years. The Capacity Performance proposal, in contrast, is built on a recognition that the previous approach may be inferior because the product definitions will never be numerous enough or granular enough to match the specific capabilities of every resource, or even every kind of resource, that may support system reliability. Under

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the prevailing approach, resources have to “shoehorn” themselves into one or more of multiple product definitions. However, the single product approach not only allows, but actually should help to drive innovation, in the aggregation of resources, and in the development of capabilities like storage that will facilitate such aggregation, to meet the single product definition. Therefore, the Commission should reject the protests that seek to retain the Base Capacity product beyond the 2019/2020 RPM Delivery Year. As the Commission found in ISO-NE Pay for Performance, the absence of “adequate incentives for resource performance . . . threaten[s] reliable operation of the system and forc[es] consumers to pay for capacity without receiving commensurate reliability benefits.”85 There is no justification for saving such a scheme for any portion of the PJM capacity market.

D. The December 12 Filing’s Provisions Concerning Demand Resources Are Just And Reasonable.

1. The Proposed RPM Reforms Accommodate Demand Resources’ Important Role in Providing Capacity Consistent with the PJM Region’s Need for Resources with Greater Availability.

Consistent with its purpose of moving to a single capacity product committed to year-round availability, PJM’s filing proposes a transition from its current three demand response capacity products86 to a single, Annual Demand Resource product that will conform to the requirements of Capacity Performance Resources. Pending the completion of the transition at the start of the 2020/2021 Delivery Year, demand response may continue to participate in RPM as Base Capacity Resources for the final two transition years (i.e., the 2018/2019 and 2019/2020 Delivery Years). PJM’s proposal thus treats

85 ISO-NE Pay for Performance at P 23.

86 See proposed RAA, sections 1.1A (Annual Demand Resources), 1.20C (Extended Summer Demand Resources), 1.43A (Limited Demand Resources).
demand response resources the same as generation resources in this respect. The Base Capacity Demand Resource product will replace the current, Limited Demand Resource and Extended Summer Demand Resource products, and will be a combination of the features of those products. Specifically, Base Capacity Demand Resources will be obligated to perform only during the months of June through September (like Limited Demand Resources), but will be available for an unlimited number of interruptions lasting up to 10 hours each during those months (like Extended Summer Demand Resources). \footnote{PJM explained that it intends the design of the new Base Capacity Demand Resource product to retain as much as possible of the existing Demand Resource participation in RPM, while ensuring that the current 1.1-in-10 LOLE standard is not exceeded.}

a single, annual demand response capacity product will unreasonably limit demand response participation in RPM. The following discussion demonstrates that none of these arguments provides any basis for the Commission to withhold acceptance or to modify PJM’s proposal regarding the role of demand response resources in PJM’s reformed capacity market.

a. There Is No Legal Obstacle to Implementing PJM’s Demand Response Reforms

PJM acknowledges that EPSA creates uncertainty about the role of demand response provided by retail end users in organized wholesale capacity markets. The scope of EPSA is squarely presented in other proceedings, but is not an obstacle to the Commission’s consideration and acceptance of PJM’s filing in this docket. The Commission addressed the same circumstances in *ISO New England, Inc.*, and ruled that is was “appropriate . . . to proceed with these market enhancements until further action is taken.”

Similarly lacking in foundation is Allegheny’s assertion that the Energy Policy Act’s policy provisions regarding demand response provide a basis for the Commission

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91 See, e.g., Allegheny at 7-10; PaPUC at 14-17; Protest of Steel Producers, Docket No. ER15-623-000, at 5 (Jan. 20, 2015) (“Steel Producers”); PIOs at 23-25; Rockland at 4-7.

92 Two complaints are pending before the Commission that seek to terminate participation by Demand Resources as supply options in RPM and in the similar capacity market administered by ISO-New England, Inc. Complaint Requesting Fast Track Processing of the New England Power Generators Association, Inc., Docket No. EL15-21-000 (Nov. 14, 2014); Emergency Complaint of FirstEnergy Service Company and Request for Fast Track Processing, Docket No. EL14-55-000 (May 23, 2014).

to direct PJM to retain the Extended Summer and Limited Demand Resource products.\textsuperscript{94} The statutory language on which Allegheny relies merely states a policy favoring elimination of “unnecessary barriers to demand response participation” in electricity markets.\textsuperscript{95} Contrary to Allegheny’s implication, PJM has not proposed any obstacle, much less any “unnecessary barriers,” to demand response participation in RPM. Instead, PJM proposes to give all potential suppliers equal opportunities to provide capacity—that is, to provide energy and reserves whenever called upon, with no excuses for non-performance—to PJM. PJM has a long record of facilitating participation by demand response in RPM,\textsuperscript{96} and fully understands and appreciates the value that Demand Resources bring to the system. It is undeniable, however, that the Demand Resources that have cleared in RPM Auctions primarily have been the limited-availability, Extended Summer and Limited Demand Resource products. As PJM has explained, its proposal to, first, combine the Extended Summer and Limited Demand Resource products into the Base Capacity Demand Resource product, and then to eliminate the limited-availability products when PJM begins 100 percent procurement of Capacity Performance Resources, while its market remains open to Annual Demand Resources on equal terms with all other potential sources of capacity, is simply “consistent with the overarching purpose of ensuring PJM load obtains from Capacity Resources what it pays for.”\textsuperscript{97} That approach

\textsuperscript{94} Allegheny at 9-10.


\textsuperscript{97} December 12 Filing at 35.
cannot reasonably be characterized as presenting an “unnecessary barrier” to participation by demand response.

b. The Proposed Demand Response Reforms Are Soundly Based and the Commission Should Accept Them Without Modification

Several parties oppose PJM’s proposed two-step elimination of the Extended Summer and Limited Demand Resource products. In general, these parties argue that, (1) because PJM’s peak demand occurs in summer, summer-only demand response products have important reliability benefits and are an economical source of capacity; and (2) limiting demand response providers to the Annual Demand Resource product subject to Capacity Performance requirements and charges will significantly reduce the amounts of demand response that will be able to participate in RPM.

These protests establish no justification for rejecting or modifying PJM’s demand response transition provisions. The fundamental concept on which PJM’s proposed RPM reforms are based is that PJM procures a single product in RPM: Capacity, defined as the ability and the commitment to provide energy and reserves to the PJM Region year-round when called upon, with (effectively) no excuses for non-performance. As explained in section II.B.2 above, this concept clearly differs from PJM’s historical approach of trying to define numerous products to coincide with the characteristics of various types of resources, but experience has revealed the pitfalls of that path. Accordingly, PJM has concluded that a better course is to define a single capacity product, and to allow any and all resources that have, or can develop, the capability to provide that product compete in RPM.

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98 PaPUC at 14-17; Steel Producers at 6-8.

99 DOD/FEA at 4-5; PaPUC at 16-17; Rockland at 4-7.
Maintaining limited-availability products like Extended Summer Demand Resources and Limited Demand Resources is simply not compatible with the revised market structure PJM proposes. While some have reasons to prefer the current market rules to those PJM proposes here, that of itself does not detract from the merit of PJM’s proposal. Equally important, it is unreasonable to anticipate that demand response will be held back by PJM’s reforms. To the contrary, PJM’s proposed revisions are resource- and technology-neutral, and in the transparent, competitive market that PJM strives to administer, those who can offer the proverbial “better mousetrap” can expect to succeed, regardless of how they build it. The revised RPM rules PJM proposes—particularly the potential for significantly enhanced revenues for demand response providers and intermittent generation from the proposed Performance Credits (described above in section III.C.3)—will offer a powerful incentive to demand response providers and those with whom they can partner to create the operational and commercial arrangements that will enable them to combine their capabilities to offer into RPM as Capacity Performance Resources. The same incentive also will tend to drive innovations in technologies like electricity storage and load controls that can enhance the reliability value, as well as the

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100 Those who oppose moving even to the single, Base Capacity Demand Resource for Delivery Years 2018/2019 and 2019/2020 overlook the market’s recent trend to reduce substantially the quantities of Limited Demand Resources, while increasing substantially the quantities of Extended Summer Demand Resources, that clear in RPM. In the 2017/2018 BRA, 7,163 MW of Extended Summer DR cleared, an increase of 4,693 MW, or 190 percent, from the quantity cleared in the 2016/2017 BRA, while 2,322 MW of Limited DR cleared in the 2017/2018 BRA, a decrease of 7,527 MW, or 76 percent, from the 2016/2017 BRA. While much of this change in resource mix may be attributable to the advent of the Limited and Sub-Annual Constraints for the 2017/2018 BRA, it nevertheless suggests an emerging market preference for the Extended Summer over the Limited Demand Resource product. This result further indicates that an ample quantity of Base Capacity Demand Resource bids can be expected to clear in the upcoming BRA for the 2018/2019 Delivery Year.
economics, of demand response and other intermittent resources not only in the PJM Region, but throughout the electricity industry. Accordingly, the Commission should accept PJM’s proposal to combine the Extended Summer and Limited Demand Resource products into the Base Capacity Demand Resource product, and then to replace the Base Capacity product with Capacity Performance Demand Resources only, beginning with the 2020/2021 Delivery Year.

2. PJM’s Proposal Regarding Measurement of Demand Resource Compliance During Non-Summer Events Is Just and Reasonable.

AEMA protests PJM’s proposal to measure the performance of Demand Resources during non-summer emergency and compliance events using the same Customer Baseline Load (“CBL”) methodology that is currently employed for measuring load reductions in the energy market. AEMA argues that PJM’s proposal is unreasonable and inconsistent with PJM’s position in Docket No. ER11-3322-000, a proceeding concerning the proper methodology for measuring the capacity market performance of Demand Resources. 102

Contrary to AEMA’s contention, PJM’s current proposal is not inconsistent with PJM’s position regarding reliance on CBL in Docket No. ER11-3322-000. That proceeding arose from concerns about the appropriate baseline for measuring summer performance of Demand Resources relative to their capacity values cleared in RPM. PJM proposed in that case to require Demand Resources to measure performance only by reductions in load during emergency dispatch hours to amounts below each end-use

101 December 12 Filing at 36. PJM’s proposal does not apply to Demand Resources that use Direct Load Control to measure and ensure compliance with load reduction dispatch instructions. Id.

102 AEMA at 17-20.
customer’s Peak Load Contribution (“PLC”).\textsuperscript{103} At the time, of that proceeding, the only Demand Response product in RPM was the summer-only, Limited Demand Resource. Measurement of Demand Resources’ performance during non-summer periods was not an issue in Docket No. ER11-3322-000.

In the Capacity Performance context, non-summer consumption (without demand reduction in response to dispatch instructions) that falls below the summer-based PLC by the Nominated DR Value is not sufficient to demonstrate performance by the DR resource, because any seasonal difference in demand (not related to demand response in emergency circumstances) is already accounted for in the planned outage schedules that PJM uses in calculating the IRM (which, in turn, is the basis for the PJM Reliability Requirement that drives RPM procurement). If an Annual Demand Resource could comply during a non-summer emergency event simply by continuing to consume less than PLC, then there would be no difference between Annual Demand Resources and summer-only, Base Capacity Demand Resources. Accordingly, in the absence of a non-summer equivalent of PLC, an alternative measure of non-summer performance is required. PJM has proposed to use CBL as that measure of non-summer compliance by Capacity Performance Demand Resources. CBL is a reasonable alternative for reasons of simplicity – the method is already used to measure demand response compliance in the PJM energy market – and, more importantly, because real-time energy load reductions

\textsuperscript{103} PLC is the average of an end-user’s actual load during the five coincident peak hours of the preceding delivery year. See Tariff, Attachment DD-1, section J. PJM is a summer-peaking system. PLC, therefore, is currently a measure of summer demand. That would change somewhat, however, under PJM’s proposed modifications to the allocation of capacity obligations amongst LSEs. See December 12 Filing at 64–66.
are an appropriate basis for measuring Demand Resources’ compliance with PJM-dispatched load reductions under the pay-for-performance paradigm PJM is proposing.

AMEA nevertheless complains that using CBL to measure non-summer performance discriminates against demand response because it purportedly will yield the lowest possible amount of load reduction by Demand Resources in winter periods, while PLC does the same in summer. 104 This is not true: There is no discrimination. Contrary to AMEA’s assertions, PJM’s performance criteria for generators are similarly conservative. Most generators have a higher winter capacity rating than summer rating, but PJM uses only the lower summer rating to determine their capacity value. For example, the summer capacity value of wind generation is about 13 percent, but the winter capacity value is about 36 percent, and PJM uses the lower, 13 percent rating as the capacity value of wind generation. 105

The bottom line is that any end user (or demand response aggregator) may have a lower Nominated DR Value in non-summer months than in the summer. In such circumstances, if the resource wants to offer itself as a Capacity Performance Resource, it may either offer itself at the non-summer capacity value that it is capable of providing year-round, or it may obtain a higher Nominated DR Value by combining with one or more other resources that have greater non-summer capacity than summer capacity. This is not a defect of PJM’s proposal, but instead a logical feature of the market-based, pay-

104 AMEA at 19.

for-performance approach that PJM has determined will best enable RPM to ensure reliable service through resource adequacy for the PJM Region.

E. RPM Requires a Strong Performance Incentive; PJM’s Proposed Non-Performance Charge and Performance Credit, Which Is Patterned Closely on ISO-NE’s Pay-for-Performance Two-Settlement Provision, Meets that Need.

A central element of the December 12 Filing is PJM’s proposed Non-Performance Charge and Performance Payment, which is closely patterned on the “two-settlement” provision in ISO-NE’s recently approved “Pay for Performance” rules. The December 12 Filing included an overview of the proposed charge/payment provision, which PJM reproduces here for convenience.

PJM’s proposed Non-Performance Charge/Performance Credit provision\(^{106}\) will compare each Capacity Resource’s Expected Performance against its Actual Performance during each Emergency Action declared by PJM. If the Actual Performance of a Capacity Resource falls short of the Expected Performance of the resource, then that shortfall will be subject to a Non-Performance Charge that is based on either yearly Net CONE (for Capacity Performance Resources) or the yearly resource clearing price (for Base Capacity Resources), and a relatively small divisor (i.e., an assumed 30 Emergency Action hours per year). As discussed in more detail in section III.E., below, the only permissible excuses for a performance shortfall are that the resource was on a planned or maintenance outage approved by PJM, or was not dispatched (or was dispatched down) by PJM. But it is not an acceptable excuse if the resource was not dispatched, or was dispatched down, because of resource parameter limitations specified by the seller, or

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\(^{106}\) See proposed Tariff, Attachment DD, section 10A.
because the seller had submitted a market-price-based offer higher than a cost-based offer.

Similar to ISO-NE, PJM proposes “stop-loss” provisions to limit the total Non-Performance Charges assessed. For Capacity Performance Resources, PJM will limit maximum charges for a calendar month, and for a calendar year. For a month, the maximum Non-Performance Charge proposed for such resources is 0.5 times Net CONE times the installed capacity committed by the resource. For a year, the Non-Performance Charge proposed for such resources is 1.5 times Net CONE, the sum of which is multiplied by the installed capacity committed by the resource. For Base Capacity Resources, there will be a calendar year limit on total Non-Performance Charges, equal to the total capacity revenues due to the resource for the Delivery Year.

Revenue collected from payment of Non-Performance Charges will be distributed to resources (of any type, even if they are not Capacity Resources) that perform above expectations. A resource with Actual Performance above its Expected Performance is considered to have provided “Bonus” Performance, and will be assigned a share of the collected Non-Performance Charge revenues based on the ratio of its Bonus Performance to the total Bonus Performance (from all resources) for the same Performance Assessment Hour. For this purpose, all performance from a resource with no capacity commitment is considered Bonus Performance.

1. **PJM’s Proposed Non-Performance Charge Rate Methodology Is Reasonable.**

   a. **The Non-Performance Charge Is Reasonably Set at Net CONE**

   The Gas Generators Coalition argues that the Non-Performance Charge should not be based on Net CONE, because the RPM Auctions regularly clear at prices below
Net CONE.\textsuperscript{107} Regardless of the clearing price in any particular auction, however, Net CONE is reasonably used in the Non-Performance Charge rate calculation. Net CONE has been approved by the Commission repeatedly as a just and reasonable reflection of the cost of a new resource in PJM; moreover, ISO-NE uses Net CONE to set the penalty charge in its pay-for-performance rules. Net CONE also is a key input to the VRR Curve used to represent demand in the RPM Auctions; by the logic of the Gas Generators Coalition, PJM should lower the VRR Curve to reflect clearing prices below Net CONE in prior auctions. Yet the Commission has never directed any such adjustment, recognizing instead that Net CONE is properly used in the VRR Curve as a reflection of the cost of new capacity under equilibrium conditions. Net CONE should be used in the Non-Performance Charge calculation for the same reason.

Similarly, the Commission should reject the Gas Generator Coalition’s proposal to use the energy market shortage price to set the charge for non-performance by capacity resources.\textsuperscript{108} PJM’s use of Net CONE in this calculation is reasonable, because Net CONE is related to the value of capacity, whereas the shortage price is an energy market value. The performance charge rate PJM has proposed, similar to the approach adopted in ISO-NE, effectively requires a poorly performing resource to “buy back” the capacity that it previously sold to PJM loads. Net CONE, as an accepted reference point for the value of capacity, serves that purpose; energy market shortage pricing does not.


\textsuperscript{108} Id. at 10.
b. The Non-Performance Charge Is Reasonably Calculated Using a Denominator of 30 Performance Assessment Hours, but a Three-Year Average Value Could Also Be Reasonable

To derive the rate PJM uses in the Non-Performance Charge, Net CONE is divided by an estimate of the number of Performance Assessment Hours in the relevant Delivery Year. For purposes of rate stability and predictability, PJM proposed in the December 12 Filing to state in the Tariff a fixed value for the denominator in this calculation. A fixed value clearly provides the highest level of rate certainty and predictability. It is also particularly important in this context because the expected level of the Non-Performance Charge could be a very significant factor for Capacity Market Sellers formulating the Sell Offers they plan to submit in a BRA. Some flexibility is retained, however, because PJM can change the rate denominator under FPA § 205 if actual experience of Performance Assessment Hours later shows a change is warranted.

The specific value PJM proposed is 30 hours, which closely corresponds to the number of hours in the 2013-2014 Delivery Year\(^{109}\) that would have met the definition of Performance Assessment Hours, had that definition been in effect then.

PJM sympathizes, however, with commenters that note that the 2013/2014 Delivery Year had an unusually high number of emergency hours, and thus may be a poor source for a number of Performance Assessment Hours to fix in the denominator of the rate calculation. PJM therefore is willing to revise the Tariff to state that the denominator will contain a number of hours equal to the annual average of the

Performance Assessment Hours in the three calendar years preceding PJM’s posting of parameters for the BRA for a Delivery Year. To ensure seller expectations are honored, the denominator for that Delivery Year will not change once it is used in the BRA. This approach would preserve the benefits of notice to Capacity Market Sellers of the Non-Performance Charge rate for a Delivery Year at the time they are submitting Sell Offers for that Delivery Year, while also providing greater confidence that the value used is reasonably representative of the number of Performance Assessment Hours that might arise during that Delivery Year.

PJM disagrees, however, with the more complicated formulaic approaches suggested by Exelon\textsuperscript{110} and the IMM\textsuperscript{111} primarily because, as PJM understands their proposals, they could result in changes to the Non-Performance Charge rate level after the Base Residual Auction. While their suggested methods might bring more precision to the estimate, they appear to sacrifice rate predictability, which is a more important consideration in this context.

c. Contrary to the IMM, the Balancing Ratio Is Reasonable

The IMM disagrees with the balancing ratio calculation in PJM’s proposed Tariff change, and recommends an alternative calculation method.\textsuperscript{112} However, the IMM’s alternative method overlooks a key distinction in the determination of the expected and actual performance of Demand Resources and Energy Efficiency Resources. The IMM’s

\textsuperscript{110} Exelon at 45.
\textsuperscript{111} IMM at 19.
\textsuperscript{112} IMM at 21-23.
recommended calculation method therefore would produce incorrect results and should not be adopted.

The IMM correctly characterizes PJM’s proposed calculation of a resource’s expected performance during Performance Assessment Hours as the resource’s committed UCAP adjusted with a ratio (referred to as Balancing Ratio) defined as:

\[
\frac{\text{[All Actual Generation Performance} + \text{Storage Resource Performance} + \text{Net Energy Imports} + \text{Demand Response Bonus Performance]}}{\text{All Committed Generation} + \text{Storage Capacity}}
\]

The numerator in PJM’s proposed Balancing Ratio represents the total load and reserves on the system, while the denominator represents the total generation and storage capacity commitment during the Performance Assessment Hour.

In contrast, the IMM proposes that the Balancing Ratio should include the hourly output of Demand Resources and Energy Efficiency Resources in the numerator, and the sum of the committed Demand Resources and Energy Efficiency Resources in the denominator. Accordingly, the IMM’s proposal Balancing Ratio would be defined as:

\[
\frac{\text{[All Actual Performance (Generation Performance, Storage Resource Performance, Actual DR performance, Actual EE performance and Net Energy Imports)]}}{\text{Total committed UCAP from generation and storage resources} + \text{total committed ICAP from DR and EE resources}}
\]

As explained in the December 12 Filing, PJM expects Demand Resources and Energy Efficiency Resources to provide their full committed amounts during Performance Assessment Hours,\(^{113}\) because the reserves associated with their demand reductions are not purchased by PJM. Therefore, the inclusion of actual performance and

\(^{113}\) See December 12 Filing at 48, 50.
commitments of Demand Resources and Energy Efficiency Resources in the Balancing Ratio incorrectly inflates the Balancing Ratio. This is because including them in the determination of the Balancing Ratio indirectly assumes that their expected performance is based on the Balancing Ratio itself—but it is not. Under PJM’s filed proposal, performance for Demand Resources and Energy Efficiency Resources is measured in a separate calculation, precisely because those resources are always expected to provide their full committed load reduction values, rather than only a proportion of their full committed load reduction. By including Demand Resources and Energy Efficiency Resources in the Balancing Ratio calculation and assuming their Expected Performance is based on the Balancing Ratio, the IMM’s proposed balancing ratio requires Generation and Storage resources to perform at a level higher than what was actually required to meet system needs. This results in a Total Expected Performance that exceeds the actual capacity needed.

In simplest terms, the math under the IMM’s approach does not correspond to what the system expects or needs, and so the results of the IMM’s alternative approach will be incorrect. The Commission should instead accept PJM’s proposed Balancing Ratio.


One party argues that Base Capacity Resources should remain under the existing PHPA rules, which provide an incentive through a penalty increment higher than the clearing price. They argue that if the maximum penalty is only the loss of capacity revenue, then a seller faces no risk in committing but not performing.

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114 Joint Consumer Representatives at 11-17.
This argument overlooks that Base Capacity is only transitional, and resources that clear as Base Capacity will become subject to the Capacity Performance penalty after three years. A party that clears and commits a Base Capacity Resource will know that it will face the much more stringent Capacity Performance charges in only a few years. Knowing it faces that Non-Performance Charge should provide all the incentive the seller needs to invest in measures to improve performance. In the meantime, the Base Capacity Resource’s potential loss of all capacity revenues is still a large penalty, and presumably the Capacity Market Seller will not take it lightly.

3. **Demand Resources Should Be subject to the Same Type of Non-Performance Charge as Generation Resources.**

Some Demand Resource Providers argue for retaining the current Demand Resource performance charge provisions, for both a Demand Resource that qualifies as a Base Capacity Resources and a Demand Resource that qualifies as a Capacity Performance Resource. That is unreasonable. All Capacity Performance Resources will receive the same clearing price (within a given LDA) and will have the same obligations. It therefore is reasonable that Demand Resources should be subject to the same Non-Performance Charges as generators, for both product types, i.e., Base Capacity Demand Resources should have the same performance charge provisions as Base Generation Capacity Resources; and Capacity Performance Demand Resources should have the same performance provisions as other Capacity Performance Resources.

Demand Resource Providers argue they should have a far lower non-performance charge, by keeping the existing Demand Resource performance charge provisions,

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because Demand Resources as a class performed well. But the performance provisions should not have differential penalties based on some view about how well different resource types have performed in the past. The same charge/credit provisions should apply to all resources, and then resources that actually over-perform, including Demand Resources, can get net payments, while those that underperform will pay Non-Performance Charges.

4. Excuses for Non-Performance Should Not Be Expanded to Protect Suppliers from the Consequences of Their Own Economic Choices.

Some generation owners want to expand the list of excuses for non-performance to include:

- A resource that is not dispatched even if its market-based offer was higher than its cost-based offer;\textsuperscript{116}
- non-performance caused by a transmission outage;\textsuperscript{117}
- when a resource cannot be dispatched beyond its known physical limits during an Emergency Action (e.g., pumped storage that has been exhausted);\textsuperscript{118}


\textsuperscript{117} See, e.g., Dominion at 36-37; LS Power at 7-8; Protest and Comments of Essential Power, LLC; Essential Power OPP, LLC; Essential Power Rock Springs, LLC; and Lakewood Cogeneration, L.P., Docket Nos. ER15-623-000, et al., at 11-12 (Jan. 20, 2015) (“Essential Power”).

\textsuperscript{118} See, e.g., Dominion at 37-38; Supporting Comments and Limited Protest of the PSEG Companies, Docket No. ER15-623-000, at 25 (Jan. 20, 2015) (“PSEG”).
some clarification of when parameter limited schedules are not an excuse for non-performance.\textsuperscript{119}

PJM does not agree with these proposed changes. Each of these proposals unreasonably seeks to shift to loads the adverse effects of poor performance that is traceable to an economic decision of the capacity provider.

For example, a higher market-based offer indicates that a resource could have been dispatched at its cost-based level but chose not to be, using the mechanism of submitting a higher market-based offer. That may be a perfectly appropriate, efficient, or defensible offering strategy in various situations. But if that strategy results in non-performance during a Performance Assessment Hour, the financial consequences of that non-performance properly should fall on the seller.

Similarly, physical resource limitations are a design and economic choice by the resource provider. Other resource providers may have made a choice to install a more flexible or robust design. Resource providers should be exposed to the consequences of those economic design choices. When they are, the result over time will be more flexible and better performing resources—because project developers will see that better performing resources end up with more capacity revenues.

5. \textit{PJM’s Proposed Stop-Loss Levels Are Reasonable.}

A number of parties argue that PJM’s proposed stop-loss is unreasonable because it is higher than the ISO-NE stop-loss.\textsuperscript{120} PJM’s departure from the ISO-NE approach on this specific issue is reasonable.

\textsuperscript{119} See, \textit{e.g.}, Protest and Comments of Coalition of Gas Generators and Project Finance Resources, Docket Nos. ER15-623-000, et al., at 18-21 (Jan. 20, 2015) (\textquotedblleft Gas Coalition\textquotedblright).
The ISO-NE model limits any loss in one month to buying the resource’s commitment back at the starting price (1.6 * Net CONE for ISO-NE), whereas PJM limits the monthly loss to 1/3 of the total auction revenues for the year, which is roughly four times higher than ISO-NE’s monthly stop-loss. On an annual basis, the ISO-NE stop-loss equals to all of the auction revenues plus three times the worst case monthly loss. For example, for a 100 MW unit at a clearing price of Net CONE ($350/MW-day) the ISO-NE stop-loss would equal approximately $14.3 million in potential penalties against auction revenues of $12.8 million. PJM, by contrast, sets the annual stop-loss at 1.5 * Net CONE for the year for a resource. Under the same assumptions, (i.e., 100 MW unit at a clearing price of Net CONE ($350/MW-day) the total potential penalties for the resource under PJM’s proposed approach would be $19.2 million.

PJM departed from the ISO-NE methodology because (assuming the clearing price is Net CONE, $350/MW-day) if PJM attempted to impose the ISO-NE stop-loss in the context of PJM, then a resource would have to trigger the monthly stop-loss in eight months in order to lose its capacity auction revenue for the year. This scenario is virtually impossible in the PJM Region, given the improbability of shortage events in PJM in months like April or October. Given the low probability of a PJM Region resource losing all of its capacity auction revenues under the ISO-NE stop-losses, PJM was concerned that using this type of model would incent poorly performing resources to submit offers to be Capacity Performance Resources simply because of the extremely low chance that they would forfeit all of their capacity revenues. This would undermine the

120 See, e.g., Gas Coalition at 6-11; Motion to Intervene, Protest, and Comments of Rockland Capital, LLC, Docket Nos. ER15-623-000, et al., at 15-17 (Jan. 20, 2015) (“Rockland Capital”).
purpose of Capacity Performance which is to incent better performance. Therefore, PJM believes it is more appropriate to have a significant probability for a generator to forfeit all of their auction revenues if they underperform for the three critical months of the year, i.e. July, August, and January.

6. **Performance Payments Are Properly Made to Over-Performing Resources, Rather than Distributing Non-Performance Charge Revenues to Loads.**

A number of parties argue that some of the revenues from Non-Performance Charges should be given to loads.\(^{121}\) However, giving these revenues to over-performing resources, as proposed in the December 12 Filing, is reasonable.

PJM’s approach corresponds to the model the Commission accepted in *ISO-NE Pay-for-Performance*. And PJM’s approach is consistent with the overall approach of making resource owners responsible for resource performance. Loads are not harmed by PJM’s approach; to the contrary, they are benefited over the long-term by making suppliers more responsible for resource performance, which will lead to better-performing resources, and promote competition between better-performing resources.

PJM’s proposed approach has the beneficial aspect of encouraging and rewarding over-performance during Performance Assessment Hours when the PJM Region most needs that performance. The incentive given to sellers under PJM’s approach also will benefit load, because extra performance during these emergency hours will help avoid deeper shortage conditions. Shifting some of the non-performance charge revenues to load would dampen this incentive by shifting some of the revenue away from over-performing resources.

\(^{121}\) PaPUC at 17-19; RESA at 2.
Moreover, loads are not harmed under PJM’s approach because loads still receive the reliability they paid for in their RPM payments. All that changes is that if the resource that originally committed performs at a sub-par level, a different resource steps into the breach and provides the energy that the first resource did not. It is reasonable in those circumstances that the poorly performing Capacity Resource pays the over-performing resource, in effect giving that second resource some of the dollars that loads gave to the first resource. The end result is that the dollars follow the performance, which is exactly as it should be to ensure that loads get the performance for which they paid.

F. The Proposed Changes to the RPM Market Power Mitigation Rules Are Reasonable.

1. Net CONE Is a Reasonable Offer Cap for Capacity Performance Resources.

PJM proposes to retain a cost-based offer price cap for Capacity Performance Resource offers in the RPM Auctions, but to increase that ceiling to replacement cost, i.e., to the Net Cost of New Entry (“Net CONE”). As PJM showed in the December 12 Filing, a substantially higher offer-price cap is needed for Capacity Performance Resources, which face substantial additional costs—from the new capital and operating costs needed to ensure the resource’s emergency performance—and substantial additional risks—from the severe financial impacts if the resource’s performance in fact falls short under PJM’s virtual “no-excuses” standard. These costs and risks may be difficult to quantify, especially on a three-year forward basis. PJM proposed a new Net CONE offer cap in the December 12 Filing because the Commission has repeatedly affirmed that NET

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122 December 12 Filing at 39-40.
CONE is a reasonable equilibrium price for capacity, and because that heightened offer cap will allow room for Capacity Market Sellers to pursue varying strategies to improve resource performance and hedge their risks of non-performance.\textsuperscript{123}

PJM consulted closely with the IMM for the PJM Region in selecting Net CONE as an appropriate offer cap for Capacity Performance Resources, and the IMM has affirmed in its comments that “[i]t is reasonable to permit offers at net [CONE] without cost review.”\textsuperscript{124} The IMM also affirms that the proposal in the December 12 Filing for a Net CONE offer cap, with unit-specific review of offers above Net CONE based on avoidable costs “is sufficient to address market power concerns involving an attempt to offer too high, greater than properly defined net CONE.”\textsuperscript{125} The IMM expresses concern however, with “potential exercise of market power and manipulation that could result from submittal of offers that are too low” i.e., “offers significantly below net CONE and below [avoidable costs].”\textsuperscript{126} PJM addresses that concern in section II.F.2, below.

While a number of parties support a Net CONE offer cap for Capacity Performance Resources,\textsuperscript{127} other parties oppose it, primarily on the grounds that a higher offer cap would not provide sufficient mitigation of possible exercises of market power in

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\textsuperscript{123} December 12 Filing at 54-56.
\textsuperscript{124} IMM at 5.
\textsuperscript{125} Id.
\textsuperscript{126} Id. (emphasis added).
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PJM’s capacity market.\textsuperscript{128} PJM takes this concern very seriously. Electric capacity markets tend to be concentrated; the PJM Tariff routinely requires market power mitigation measures in the capacity market because that market regularly fails standard tests of market concentration.\textsuperscript{129} The question here, therefore, is not whether to apply offer caps, but which offer cap to adopt.

In such a case, more than one offer cap approach may be reasonable, and PJM is not limited to the current Tariff standard of avoidable cost (the capacity market equivalent of marginal cost) plus 10 percent. Indeed, protestors’ argument that PJM must continue to adhere to, in effect, “marginal cost (as estimated from historical cost data) plus 10 percent . . . mistakenly presupposes the existence of a ‘single pricing formula’ for fixed cost recovery that meets the just and reasonable standard.”\textsuperscript{130} As the federal court in \textit{WPPI} found in comparable circumstances, such an argument “goes astray . . . by substituting a pinpoint (marginal cost plus 10 percent, and not a penny more) for a zone of reasonable options FERC can choose from.”\textsuperscript{131} As the \textit{WPPI} court recognized, setting a reasonable offer cap “require[s] striking a balance between, on the one hand, detecting and dampening exercises of market power and, on the other hand, allowing generators to charge prices that are high enough for them to recover their fixed costs.”\textsuperscript{132}

\textsuperscript{128} See, e.g., AMP/ODEC/SMEC at 66-67; Direct Energy at 23-24; ICC at 8-10; Joint Consumer Representatives at 17-21; PaPUC at 23-33; Rockland at 8-10.

\textsuperscript{129} See Tariff, Attachment DD, section 6.3.

\textsuperscript{130} \textit{Wis. Pub. Power, Inc. v. FERC}, 493 F.3d 239, 260 (D.C. Cir. 2007) (“\textit{WPPI}”) (citing & quoting \textit{Mobil Oil Exploration & Producing Se., Inc. v. United Distrib. Cos.}, 498 U.S. 211, 224 (1991)).

\textsuperscript{131} \textit{WPPI} at 260 (citing \textit{ExxonMobil Gas Mktg. Co. v. FERC}, 297 F.3d 1071, 1084 (D.C. Cir. 2002)).

\textsuperscript{132} \textit{WPPI} at 262.
Commission has broad discretion in balancing these risks of over-mitigation and under-mitigation,\textsuperscript{133} and in making “predictive judgments” about the markets it regulates, such as whether a higher offer cap will “provide an efficient incentive to invest” in improvements needed for better resource performance.\textsuperscript{134}

As detailed in the following three subsections of this Answer, the record of this case shows that a Net CONE offer cap reasonably strikes the balance between supplier interests and load interests. The proposed Net CONE offer cap for Capacity Performance Resources will accommodate Sell Offers that reflect a seller’s reasonable estimates of its costs and risks of committing as a Capacity Performance Resource, while at the same time providing adequate assurance, in the specific context of the PJM capacity market, that sellers will not increase prices above competitive levels through the exercise of market power.

a. **PJM’s Current RPM Offer-Capping Rules Do Not Capture the Costs and Risks of Committing as a Capacity Performance Resource**

As shown in the December 12 Filing, PJM’s current RPM offer-capping rules do not encompass the new costs and risks faced by a Capacity Performance Resource. Existing Generation Capacity Resources can (in most circumstances) offer no more than their Avoidable Cost Rate (“ACR”) less expected net energy and ancillary service market

\textsuperscript{133} WPPI at 262.

\textsuperscript{134} WPPI at 260 (citing & quoting *EarthLink, Inc. v. FCC*, 462 F.3d 1, 12 (D.C. Cir. 2006). *See also Envtl. Action, Inc. v. FERC*, 939 F.2d 1057, 1064 (D.C. Cir. 1991) (“It is within the scope of the agency’s expertise to make . . . a prediction about the market it regulates, and a reasonable prediction deserves our deference notwithstanding that there might also be another reasonable view.”).
revenues, determined in accordance with a strict formula.\textsuperscript{135} The present ACR formula was not designed to recover the particular costs and risks of a Capacity Performance Resource.

Under PJM’s Capacity Performance proposal, the Tariff will not prescribe which measures a seller must take to enable its resource to perform as a Capacity Performance Resource. That choice rests with the seller, as does the responsibility if the resource does not perform when called upon in an emergency. The Net CONE offer cap supports this fundamental philosophy of seller responsibility for performance. At the time of the BRA, a seller could be willing to undertake a Capacity Performance obligation even if it has not resolved exactly how it will ensure firmness of fuel delivery or availability, or at what cost. The seller may not yet have complete information on the results of a pipeline open season, the availability of released firm pipeline capacity, the parameters of bundled commodity and transportation arrangements with third-party asset managers, or the ultimate cost of dual-fuel capability. The flexibility to offer at prices up to the Net CONE offer cap will allow a seller to make its best estimate of an allowance for such costs, even if those costs are uncertain at the time of the BRA. In practice, a seller of a Capacity Performance Resource will be strongly incented to offer at a price that is high enough to enable the resource to meet the Capacity Performance obligation and avoid Non-Performance Charges, but equally incented (as discussed below) to offer at a price that is not so high that the resource does not clear. Those competing considerations are likely to be critical in determining the seller’s offer, but they are not reflected in the rigid ACR formula.

\textsuperscript{135} December 12 Filing at 53-54.
Similarly, even if costs are reasonably known three years in advance, sellers could reasonably be allowed some flexibility in how they propose to recover those costs. For example, the current offer-capping rules give sellers options for accelerated recovery of project investment costs associated with installation of dual-fuel capability. But there is no comparable treatment in the current rules to accelerate recovery of the costs of a long-term firm pipeline transportation agreement, even though a long-term firm transportation agreement may in many cases be the relevant alternative to a dual-fuel capital investment project. Permitting a seller room to treat those alternative long-term outlays in a comparable manner may help ensure that the seller adopts the most effective and cost-efficient alternative, rather than being biased towards the alternative with the more favorable treatment under offer-capping rules.

Aside from the costs of improving performance, the risks of committing as a Capacity Performance Resource will be even more difficult to quantify at the time of the BRA. Under the proposal in the December 12 Filing, the financial risk of non-performance by a Capacity Performance Resource can range as high as 1.5 times Net CONE times all of a resource’s committed capacity. The Non-Performance Charge, with its 1.5 times Net CONE stop-loss level, will be a very substantial potential cost of doing business as a PJM Capacity Resource. Sellers will now need to take that potential cost into account when developing their offers, and submit price offers at which they are willing to undertake that risk by becoming committed as Capacity Performance Resources in PJM. Yet different sellers may perceive that risk in different ways, as the Commission recognized in approving ISO-NE’s pay-for-performance proposal, when it
acknowledged the “complexity and company-specific nature of valuing performance risk.”

Indeed, if a seller has a higher perception of risk, then RPM loads will be better served if the seller actually \textit{reflects} that higher expected risk through a higher offer price. If one seller perceives a greater risk of resource non-performance, then offering at a higher price makes that risk more transparent, and allows the market to instead select a lower cost, less risky resource. The current ACR formula does not support this transparent evaluation and pricing of risk, but a Net CONE offer cap would enable that comparison, and help ensure that the market selects the lowest cost and least risky resources.

PJM’s discussion here does not capture all the costs and risks that are associated with Capacity Performance Resources. PJM notes that the record in this case reflects a more comprehensive effort by NRG to list such costs and risks, as well as a rough quantification of those costs.\textsuperscript{137} While PJM does not adopt that analysis, it highlights the variety and scope of the Capacity Performance Resource costs and risks, and underscores that those costs and risks \textit{are not} contemplated by the current ACR offer-capping rules.

Protestors that oppose PJM’s proposed increase in the offer cap therefore are overlooking the inability to reflect under the current offer-capping rules these added costs and risks of a Capacity Performance Resource. But that issue cannot be ignored; a revised offer cap that accommodates those costs and risks must be adopted. As discussed in the following section, a Net CONE offer cap reasonably meets that need.

\textsuperscript{136} \textit{ISO-NE Pay for Performance} at P 96.

\textsuperscript{137} NRG/Dynergy at 11: \textit{id.} at Report of Dr. John R. Morris at 14-20.
b. **Net CONE Provides a Reasonable Revised Offer Cap to Accommodate the Higher Costs and Risks of Capacity Performance Resources While Still Assuring that Prices Do Not Exceed Those Expected from a Competitive Market.**

As PJM showed in the December 12 Filing, Net CONE provides a reasonable revised offer cap for Capacity performance Resources. It provides room for sellers to include new, and difficult to quantify, costs and risks of committing as a Capacity Performance Resource above the current avoidable cost rate, yet corresponds to a level that the Commission repeatedly has found is consistent with a competitive capacity market.

In particular, the Commission has found that:

- “a competitive capacity market would provide annual revenues over time that, on average, would approximate Net CONE;”\(^ {138}\)
- “in a competitive market, prices should reach equilibrium at or near the levelized net cost of new entry;”\(^ {139}\)
- “investors must expect that the average price over time approximates the actual average annual Cost of New Entry;”\(^ {140}\) and
- “[i]n order to encourage new resources to be built in [a specified] zone when they are needed, capacity prices on average over time must approximate the net cost of new entry in [that] zone.”\(^ {141}\)

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Consistent with these principles, Net CONE is the estimated Capacity Resource cost level that anchors RPM’s VRR Curve. Over time the marginal offer needed to clear the market will be priced at Net CONE, and all other resources that clear the market will be compensated at that Net CONE price. While not a unit-specific cost measure, Net CONE remains a cost-based determination, as it reflects the estimated replacement cost of capacity in a competitive market at equilibrium. In addition, the Net CONE estimate is developed by an independent RTO in accordance with the Commission-approved Tariff, with the major component of that estimate (i.e., the Gross Cost of New Entry) expressly prescribed by the Tariff and approved by the Commission.¹⁴²

Notably, the RPM rules already allow offers above avoidable costs to set clearing prices. Planned Generation Capacity Resources generally are not subject to offer caps.¹⁴³ Demand Resources and Energy Efficiency Resources also are not subject to offer caps in RPM, based in part on the difficulty in determining their resource-specific costs.¹⁴⁴ Adopting a Net CONE offer cap for Existing Generation Capacity Resources that offer as Capacity Performance Resources therefore is an evolutionary, incremental change that meets the need for flexibility in estimating costs and risks for this new capacity product, and does so by using a cost level—Net CONE—that already plays a key role in ensuring just and reasonable wholesale capacity prices.


¹⁴³ See Tariff, Attachment DD, section 6.5(a)(ii)

¹⁴⁴ See Tariff, Attachment DD, section 6.5(b).
Finally, PJM notes that the Commission has already accepted a Net CONE offer cap in somewhat similar circumstances. Special offer-cap rules apply to existing resources that must incur substantial project investments in order to retain their existing megawatts in service. Such resources can add project investment costs to their offer, and depending on the expected remaining life of the resource, are entitled to assume highly accelerated recovery of those project investment costs. For a Capacity Resource that is forty or more years old, the Tariff permits recovery of project investment costs in a single year, subject to an offer cap of Net CONE.\textsuperscript{145}

Like these “40+” Capacity Resources, Capacity Performance Resources face a substantial cost hurdle in committing to serve as capacity for a given Delivery Year. For “40+” resources, however, the costs are associated with keeping the plant in service, without necessarily improving its performance; whereas for Capacity Performance Resources, the costs are associated with committing the resource to a higher standard of expected performance. The “40+” allowance for recovery of all project investment costs in a single year also provides sellers a very high degree of flexibility in setting their offer prices, similar to the flexibility proposed by PJM for sell offers from Capacity Performance Resources. Accordingly, the limit on that offer flexibility that the Commission previously accepted for the “40+” resources, i.e., Net CONE, can reasonably be adopted as a limit on the offer flexibility proposed for Capacity Performance Resources.

c. Even Without an Avoidable Cost Rate Cap, the RPM Market Design Creates Strong Incentives for a Seller to Offer No More than the Marginal Cost of Its Resource

\textsuperscript{145} Tariff, Attachment DD, section 6.8(a).
While the foregoing discussion already largely rebuts the market power concerns, raised by some protestors, of a departure from an ACR-based offer cap, a focus solely on the offer-cap levels overlooks important elements of RPM that further allay market power concerns.

Most importantly, allowing a Net CONE offer cap does not, by itself, lead to a conclusion that resources will in fact offer well above their reasonable estimate of expected unit-specific marginal costs. As the Commission has recognized, the single-clearing-price design of markets like RPM “creates an incentive for resources to submit offers that accurately reflect their risks, rather than inflating them, in order to increase the likelihood that they will clear.”¹⁴⁶

The optimal strategy in a competitive market is to offer the marginal cost of production, which in a capacity market is the expected going-forward, or avoidable, cost. From an incentive perspective, consider a resource that offers up to Net CONE but only has going forward costs of 0.5 Net CONE. If the market clears at 0.6 Net CONE, that resource has just forgone sufficient revenues to go forward. If the resource owner then opts to keep the resource in service, it is doing so at a loss, because its unwise offer strategy caused it to lose an opportunity to receive capacity market compensation that is in fact higher than its going-forward costs. Indeed, the greater the difference between Net CONE and the resource’s going-forward cost, the greater the risk of loss from offering at Net CONE.

The incentive to clear has a powerful effect on offer behavior in RPM, notwithstanding the relatively concentrated market structure. A very large percentage of

¹⁴⁶ *ISO-NE Pay for Performance* at P 98.
resources offer at zero or another price well below their avoided costs, in order to ensure the resource clears. At the other end of the supply curve, offers at Net CONE are relatively infrequent, even among resources that presently can offer at or above Net CONE, i.e., planned generation resources and demand and Energy Efficiency Resources. Even without discussing individual sell offer prices from such resources, it is apparent that they often offer below Net CONE, because RPM Auctions frequently clear below Net CONE notwithstanding extensive offers from resources that are not offer-capped.

Consequently, sellers of Capacity Performance Resources will have to confront the reality that offers at Net CONE may not clear and that, even if a BRA price is set by new generation entry, the cost of the particular marginal resource also may be below Net CONE. Therefore, Capacity Performance Resources that are Existing Generation Capacity Resources in the PJM Region will still be strongly incented to offer at or near their avoidable costs, so that they can clear and realize a substantial contribution to fixed-cost recovery in the form of RPM capacity clearing prices, even though they will not be formally capped at avoidable costs.

Ultimately, the key difference between the current and proposed offer-capping rules is that sellers of Capacity Performance Resources will have much greater freedom to estimate the avoidable costs that they in fact expect for their resources, so that they can reflect those costs in their offer and thereby ensure that they can meet the Capacity Performance obligations if their resource clears. And that accommodation for sellers to

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147 See PJM Utilities Coalition at Affidavit of Dr. William Hieronymus and Dr. David Hunger In Support of Comments and Limited Protest of the PJM Utilities Coalition (Attachment A) ¶¶ 32-36.
148 See id.
make their best estimate of the costs of performing is exactly what is needed for the Capacity Performance proposal to work as intended.

2. The IMM’s Proposal for Review of Capacity Performance Resource Offers that Are Too Low Has Merit.

While the IMM supports PJM’s proposal to allow offers at Net CONE without unit-specific review, the IMM expresses concern about the “potential exercise of market power and manipulation that could result from the submittal of offers that are too low.”149 The IMM observes that an offer that is too low (i) might not be a bona fide physical offer; (ii) might be an attempt to engage in monopolistic or buyer-side market power; and (iii) might be an attempt by a fleet owner to obtain an unfair competitive advantage for some units in its fleet.150 The IMM cautions that such potential behavior threatens “the ability of a performance-based capacity market design to operate as intended” and recommends it be addressed.151 Specifically, the IMM recommends “implementation of a defined mechanism to detect and deter the potential to exercise market power associated with offers significantly below net CONE and below net ACR.”152 PPL similarly proposes PJM and IMM review of Capacity Performance Resource offers to the extent they do not include a risk premium (above the unit’s other avoidable costs) of at least 0.5 times Net CONE.153

149 IMM at 5.
150 IMM at 5.
151 IMM at 5.
152 IMM at 5.
153 PPL at 13-14.
PJM understands and shares the concern raised by the IMM. RPM has a minimum offer price rule (“MOPR”) for certain Capacity Resources—mostly, but not exclusively, Planned Generation Capacity Resources—in order to prevent anticompetitive price suppression, but the existing MOPR would not apply to Capacity Performance Resources that have previously cleared an RPM Auction and that are not adding new incremental capacity. Yet, Capacity Performance Resources will be similar to planned resources in that they necessarily entail substantial new costs and risks, from capital and operating improvements to enhance performance and from the financial risks posed by non-performance charges. A Capacity Performance Resource offer that disregards these new costs and risks by, for example, pricing at or near zero, would raise possible price suppression concerns. Accordingly, a procedure for identification and review of such offers would be reasonable. PJM would support a compliance requirement to develop such rules, even if such rules could not be implemented for the May 2015 BRA.

3. There May Be Value in Investigating a More Effective Multi-Year Pricing Option.

The PJM Utilities Coalition presents extensive argument on the question of revenue inadequacy among PJM Capacity Resources, and particularly notes the problem of a “one-year price” for a multi-year investment. PJM did not propose any Tariff changes in the December 12 Filing on this issue, and does not propose any now. However, given the additional costs of serving as a Capacity Performance Resource, the possibility for new environmental rules to require even more investment in existing

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154 Tariff, Attachment DD, section 5.14(h)(2).

155 PJM Utilities Coalition at 24-27.
generation facilities, and the Commission’s recent approval of an expansion for the new-entry pricing available in ISO-New England, the time may be ripe to revisit this issue.

PJM therefore suggests that the Commission respond to the concerns raised by the PJM Utilities Coalition by directing PJM to explore with stakeholders issues of new entry pricing and multi-year pricing, and report to the Commission on the results of those discussions by no later than December, 2015.

4. The Current Third IA Offer Cap of 1.1 times the BRA Price Should Be Retained For Use When It Exceeds Net CONE.

As explained in the December 12 Filing, the adoption of a Net CONE offer cap for Capacity Performance Resources requires a conforming change to current Tariff section 6.4(d), which establishes an offer cap for the Third Incremental Auction of 1.1 times the Base Residual Auction clearing price. The Commission approved this rule change in settlement of a complaint that contended that sellers required to offer all of their remaining capacity (as determined by the final Demand-Equivalent Forced Outage Rate (“EFORd”) calculation before the Delivery Year) into the Third Incremental Auction at the ACR price faced a risk because that capacity would then be unavailable to them as replacement capacity should they face deficiency charges during the Delivery Year.156

Because that concern remains, PJM proposed to retain the offer cap of 1.1 times the BRA price by revising section 6.4(d) to provide that the Market Seller Offer Cap will be the greater of Net CONE or 1.1 times the BRA price.

156 See Mirant Energy Trading, LLC v. PJM Interconnection, LLC, 122 FERC ¶ 61,007, order accepting settlement, 124 FERC ¶ 61,140 (2008).
The IMM, by contrast, proposes to eliminate this special offer cap in the Third Incremental Auction, arguing that the basis for this change was undermined several years ago when PJM reduced RPM deficiency charge levels from 2.0 times resource clearing prices to 1.2 times resource clearing prices.\textsuperscript{157}

PJM respectfully disagrees with the IMM. The Third IA offer cap should be retained, given that it is possible that the 3rd IA offer cap, i.e., 1.1 times the BRA clearing price, \textit{can} be higher than Net CONE. As to the IMM’s observation about penalty levels, PJM is proposing in this filing to substantially \textit{increase} the Non-Performance Charge levels. Consequently, sellers with excess capacity at the time of the Third IA should still be entitled to recognize the value of that capacity as a possible source of replacement for their other resources that experience issues during the Delivery Year that could subject them to penalties.

\textit{5. The Risk Premium Element that PJM Has Proposed for Avoidable Cost-based Offers Above Net CONE Could Be Clarified and Made More Flexible.}

As explained in the December 12 Filing, PJM is proposing to include in the ACR formula a new term specifically to allow sellers of Capacity Performance Resources to include a premium for quantifiable risks associated with such resources. Specifically, PJM proposes to add to the ACR formula a new element on “Capacity Performance Quantifiable Risk,” consisting of “the documented and quantifiable costs of mitigating the risks associated with submission of a Capacity Performance Resource offer, such as insurance expenses solely attributable to the risk of being a Capacity Performance Resource.”

\textsuperscript{157} IMM at 10-11.
Resource.” The Tariff addition makes clear that “CPQR applies solely for offers of a Capacity Performance Resource.”

Given that PJM otherwise is allowing Capacity Performance Resources to offer at up to Net CONE, this risk premium would likely only be used by sellers that have costs above Net CONE and that therefore seek to offer above Net CONE. Such sellers must support those offers using the ACR rules, as amended by the December 12 Filing.

Certain generation owners seek to modify or clarify the risk premium element proposed by PJM:

- PSEG seeks clarification that a seller can document its risk premium in various ways;

- Exelon proposes that a seller’s requested risk premium level can be “reasonably supported” instead of “documented and quantifiable,” and that a demonstration that the seller has quantified its risks for this purpose in the same manner it quantifies risks for other corporate or business purposes would be sufficient for PJM and the IMM to accept the proposed risk premium; and

- Exelon proposes to expand matters addressed by the risk premium beyond only Capacity Performance Resource risk, including energy market and operational

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158 Proposed Tariff, Attachment DD, section 6.8(a).
159 PSEG at 16-17.
161 Motion to Submit Reply Comments and Reply Comments of Exelon Corporation, Docket No. ER15-623-000, at 30 (Feb. 4, 2015).
risks (while still permitting such risk premia only for Capacity Performance Resources).

PJM supports these requested clarifications. Given the importance of these risk premiums to reasonably reflecting a seller’s costs of committing as a Capacity Performance Resource, and the inherent challenges in quantifying such risks, these are reasonable modifications.


In the December 12 Filing, PJM proposes a “must-offer” requirement specific to Capacity Performance Resources, as well as a process for Capacity Market Sellers to seek an exception to that must-offer requirement.

Homer City seeks guidance on how a resource’s capability to offer as a Capacity Performance Resource would be determined in the must-offer review process. PJM clarifies that the resource would need to be able to demonstrate that there is a physical reason that it would be unable to provide assurance of the ability to deliver energy during emergency conditions. If investment would be required in order to be capable of providing such assurance, then the seller would be required to quantify that investment and submit a Capacity Performance offer for the resource that reflects the costs involved (or up to Net CONE, whichever is higher). Resources that would be excused from offering would be those for which there are physical reasons why offering as CP is not possible, and for which any reasonably quantifiable investment would not resolve those physical issues.

\footnote{Exelon at 69-72.}
G. The Commission Should Defer Action on PJM’s Proposed Changes to Allocation of Capacity Obligations Among Load Serving Entities.

PJM explained in its December 12 Filing that the focus of its proposed RPM reforms on the performance of capacity resources during emergencies does not align with the factors that are currently used to allocate among LSEs the costs of the capacity that PJM procures through the RPM Auctions. Instead, LSEs’ capacity obligations, and thus their allocated shares of capacity costs, are premised on the contribution of each LSE’s load to the most recent summer peak load.\(^{163}\) While the summer peak hours used in this allocation may coincide with hours of emergency operations, the current RPM rules do not expressly require consideration of loads during hours of emergency operations, and likewise do not require consideration of winter peak demands. Accordingly, PJM included in the December 12 Filing a proposal to modify the determination of LSEs’ capacity obligations by adding winter peak hours and Performance Assessment Hours to the summer peak hours currently used for that purpose. PJM proposed to make this change would become effective for the 2018/2019 RPM Delivery Year.\(^ {164}\)

Several parties protest PJM’s proposed change to the allocation of capacity obligations, and others support it. PJM believes the protests offer no valid basis for the Commission to withhold its approval of PJM’s proposed allocation changes. However, PJM recognizes that modifying the allocation method is significant, and putting a new

\(^{163}\) See RAA, Schedule 8, section A.

\(^{164}\) December 12 Filing at 62-65. Specifically, when this change is effective, Zonal Obligation Peak Load will be calculated by deriving the average zonal load at the time of: (i) the four highest summer peak load hours in the PJM Region, (ii) the single highest winter peak load hour for the PJM Region, and (iii) for each day containing Performance Assessment Hours, the hour with the highest PJM Region load during that day. See proposed RAA, Schedule 8, section B.
allocation method in place immediately is not essential to the RPM reforms PJM seeks in this filing. Therefore, PJM is willing to consider the proposed allocation changes further with stakeholders, and respectfully requests that the Commission accommodate that. Specifically, PJM asks that the Commission, in its order on the December 12 Filing to (1) not address the merits of the proposed revision of the current allocation methodology, and (2) direct PJM (a) to engage in additional deliberations with stakeholders concerning changes to the method of allocating capacity obligations to comport with the Capacity Performance reforms, and (b) to file a new proposal (either reflecting an approach endorsed by stakeholders or, if the stakeholders have not agreed on a revised allocation, a unilateral proposal by PJM) to revise the allocation of capacity obligations within one year after the date of the Commission’s order.

H. Methodology for Clearing Base Capacity Resources

PIO is the only party that objects to PJM’s proposed methodology for determining the Base Capacity Constraints for the RPM Auctions for the 2018/2019 and 2019/2020 Delivery Years. According to PIO, the Base Capacity Constraint as proposed is overly restrictive and based on assumptions that are too conservative. PIO so declares because (1) PJM assumes import limits lower than applicable capacity transfer limits and no Base Capacity generation or demand response during winter peak demand hours, which they claim is unrealistic, and (2) if PJM “reasonably assumed 50% of [Base Capacity] generation was available” during winter peaks, instead of zero, then Base Capacity

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165 These revisions affect only the proposed RAA, Schedule 8, section B.

166 PJM proposes to retain the existing Limited Resource Constraint and Sub-Annual Resource Constraint through the 2017/2018 Delivery Year.
Resources could comprise 31.7 percent of committed capacity without changing the current, 1.1-in-10 LOLE.\textsuperscript{167}

PIOs fail to demonstrate any flaw in PJM’s approach. PJM pointed out in the December 12 Filing that the methodology it proposes for determining the Base Capacity Constraint is conceptually the same (i.e., all resources not obligated to perform during the winter peak — most demand response and energy efficiency resources — are treated as unavailable) as the method the Commission approved in 2014 for calculating the similar, currently effective constraint on existing, sub-annual resources.\textsuperscript{168} Moreover, Mr. Falin clearly explained in his affidavit submitted with PJM’s filing that, because Base Capacity Demand and Energy Efficiency Resources are not obligated to perform outside their seasonal commitments, “for resource planning purposes, they are assumed to not be available” during winter peak hours.\textsuperscript{169} Finally, PJM reasonably proposes to base the calculation of the constraint on availability of generation Base Capacity Resources during the winter peak because, under the Capacity Performance proposal, generation resources that are capable of year-round performance of their capacity commitments must be offered in RPM as Capacity Performance Resources.\textsuperscript{170} By definition, therefore, generation Base Capacity Resources will be only resources that PJM and the Independent Market Monitor have determined “will not be physically capable in the relevant Delivery

\begin{itemize}
\item \textsuperscript{167} PIOs at 11-12.
\item \textsuperscript{168} December 12 Filing at 69 (citing \textit{PJM Interconnection, LLC}, 146 FERC ¶ 61,052 (2014)).
\item \textsuperscript{170} \textit{See} proposed Tariff, Attachment DD, section 6.6A(a).
\end{itemize}
Year of satisfying the performance requirements of a Capacity Performance Resource.”\textsuperscript{171}

PIOs provide no evidence to support their assertion that it would be reasonable to assume, for purposes of ensuring resource adequacy, that 50 percent of Base Capacity generation in fact would be available during winter peaks. Instead, they merely cite PJM’s answer to a stakeholder’s hypothetical question, and suggest no foundation for accepting the question’s implicit proposition that assuming 50 percent availability of such resources during winter peak hours is a sound basis for reliability planning.\textsuperscript{172} Accordingly, the Commission should reject PIOs’ protest, and should accept PJM’s methodology for determining the Base Capacity Constraints for the 2018/2019 and 2019/2020 Delivery Years.

I. Increased Credit Exposure Under the Non-Performance Charge Requires Conforming Changes to the RPM Credit Provisions.

Because instituting the Non-Performance Charge increases potential credit exposure in the event of a default by a planned resource that clears in an RPM Auction, PJM has proposed changes to the RPM credit requirements of Attachment Q to the PJM Tariff. These proposed changes apply only to Capacity Performance Resources, and focus on the credit exposure represented by the annual stop-loss exposure to Non-Performance Charges of such a resource. Several protestors challenge certain aspects of these changes.

\textsuperscript{171} December 12 Filing, Affidavit of Thomas A. Falin on Behalf of PJM Interconnection, L.L.C. (Attachment C) ¶ 6.

\textsuperscript{172} PIOs at 12 n.34.
1. Relationship Between Credit Requirements and Stop-Loss Provisions.

Invenergy advocates changes to the proposed credit revisions to conform to its proposal to revise the stop-loss limits for Capacity Performance Resources. However, for the reasons explained above in section II.E of this Answer, Invenergy’s proposed changes to the stop-loss provisions should be rejected. Therefore, the Commission also should reject Invenergy’s proposed changes to the RPM credit provisions.

Gas Generator Coalition is correct that credit requirements increase for planned resources under PJM’s Capacity Performance proposal, and that the RPM credit requirement always equals the stop-loss amount, regardless of the estimated RPM clearing price.173 As PJM has explained,174 the RPM credit requirement for a planned resource equals the resource’s exposure to Non-Performance Charges (net of the resource’s RPM capacity payments) in accordance with the applicable stop-loss provision, because that is the credit exposure to PJM presented by a planned resource. The link between the clearing price and the stop-loss appropriately reflects the lag in billing and collection of Non-Performance Charges, i.e., such charges will be billed two to three months after the fact. Therefore, depending on the timing of a non-performance event, associated charges may be billed after most, or even all, capacity payments for the DY have been made to the non-performing resource.

173 The proposed revisions to the RPM credit requirements should be modified slightly, in order to utilize Net CONE for the LDA in the credit calculations, where applicable, rather than Net CONE for the PJM Region. PJM will make this change in its compliance filing following the Commission’s order on PJM’s proposal, subject to the Commission so directing.

174 December 12 Filing at 71-75.
2. Collection and crediting of Non-Performance Charges

Calpine objects to the lag in billing Non-Performance Charges, and to collection of such charges over the then-remaining months of the Delivery Year. Calpine argues that this increases risk for resources that are entitled to distribution of Non-Performance Charge revenues, i.e., resources whose Actual Performance exceeds Expected Performance. However, Calpine overlooks that the non-payment risk posed by a Capacity Market Seller with low creditworthiness actually would be exacerbated by requiring immediate payment in full of a Non-Performance Charge. Allowing the charge to be paid over time would lessen the liquidity risk of such a seller, and thus would increase the probability of full recovery of the charge. Nevertheless, should the Commission find it appropriate to modify this provision, PJM would consider it acceptable to make the extended payment timeframe optional for Non-Performance Charges, and to charge interest (at the Commission’s prescribed rate of interest on refunds) over the extended payment period when a seller chooses that route.

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175 Calpine at 9-10.

176 PJM’s review of the proposed Non-Performance Charge provisions in light of Calpine’s comments revealed that it is appropriate to clarify the timing and mechanism for crediting Non-Performance Charge revenues to the Capacity Performance Resources that are entitled to share them. Specifically, if so directed by the Commission, PJM would clarify the proposed section 10A of Attachment DD to state that PJM will credit Non-Performance Charge revenues to over-performing resources within 60 days after the revenues are collected. This will eliminate simultaneous billing of charges and credits, which could inadvertently result in credits being paid on revenues that are not collected. Although this will insert a small delay in distributing Performance Credits, such delay will be modest and reasonable in order to implement properly the requirement that only revenues actually collected will be distributed to other market Participants.
3. Credit Requirements for Planned Energy Efficiency Resources.

The most extensive protest to the revised RPM credit requirements is that of EMC. EMC is a developer of Energy Efficiency Resources, and its protest focuses on the alleged effects of PJM’s proposal on such resources. However, EMC’s claims that the revised credit provisions are unjustified and have a disparate impact on Energy Efficiency Resources do not withstand scrutiny. Accordingly, the Commission should reject EMC’s protest.

Most importantly, EMC’s implication that the new RPM credit provisions treat Energy Efficiency Resources differently from other resource types is incorrect. It is true that the revised RPM credit requirement for planned Capacity Performance Resources is substantially higher, both pre-auction and post-auction, than the current RPM credit requirement for the resources that can offer into RPM Auctions today. But the increased credit requirement PJM has proposed applies equally to all resource types – there are no requirements for Energy Efficiency Capacity Performance Resources that are not applied equally to all Capacity Performance Resources.

EMC’s complaint that the revised credit requirements will have a disproportional effect on energy efficiency providers because of the relatively short, four-year “RPM life” of Energy Efficiency Resources is also misplaced. The RPM credit requirement is

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178 Id. at 4. EMC correctly explains that “Energy Efficiency projects in RPM only earn capacity value for four years from their installation date . . . . This is based on the rationale that because PJM planning processes look ahead four years to determine auction capacity requirements, after four years the energy efficiency benefits are incorporated into planning values.” Id.
premised on the risk that a planned resource will not be completed when its performance obligation commences, i.e., by the start of the relevant Delivery Year, or may not be completed at all. EMC may well be right that the short life of Energy Efficiency Resources means that a relatively larger proportion of an energy efficiency provider’s project portfolio consists of planned, rather than existing, resources, than is true of other capacity sellers’ portfolios. But if that is the case, the difference has nothing to do with RPM credit requirements. Instead, the characteristics of the energy efficiency provider’s project portfolio, not some form of credit discrimination, cause the energy efficiency provider to have relatively more planned resources, and thus correspondingly larger relative RPM credit requirements, than same-sized portfolios of other types of resources.

The remainder of EMC’s protest attempts to demonstrate that the RPM credit requirement for Energy Efficiency Resources is too high because, according to EMC, the historical performance record of such resources has been exceptional, thus demonstrating that they present little risk of non-performance. But the performance of Energy Efficiency Resources after they become operational is not what the RPM credit requirement addresses. The RPM credit requirement applies to planned resources (of every type) because a resource that does not exist when it clears an RPM Auction clearly presents a materially greater risk of non-performance than an existing resource. Indeed, a

179 EMC at 4.

180 EMC at 10-13. EMC goes on to assert that PJM’s reference to the potential need for some existing resources to make investments in order to be capable of performing as Capacity Performance Resources makes it unreasonable not to apply the RPM credit requirements to those resources, while applying it to planned resources, including planned Energy Efficiency Resources. Id. at 13-14. Again, however, EMC disregards the inherently different risk of non-performance presented by a planned resource relative to that of a resource that already exists and is in operation.
planned resource that is not completed has a 100 percent chance of failing to perform when called upon. That is why security is required of planned resources, and is returned when such a resource is completed.

EMC’s suggestion that the release of RPM security prior to the start of the Delivery Year removes any basis for linking liability for Non-Performance Charges and the RPM credit requirement is misplaced for the same reason. The amount of credit required for planned resources that clear an RPM auction is premised in part on the potential exposure to Non-Performance Charges because, if a planned resource is not completed, there is a 100 percent risk that it will fail to perform when called on during the Delivery Year. That would require PJM to find other resources to replace the one that failed to perform. As the Commission has explained:

The deposit that a resource is required to provide to meet the credit requirement is designed to ensure that PJM is made whole if a resource fails to honor its contract. It is based on PJM’s assessment of the amount of funds it will need to procure new capacity, possibly on very short notice, if a resource fails to honor its capacity commitment.\(^\text{181}\)

\(^{181}\) *PJM Interconnection, L.L.C.*, 128 FERC ¶ 61,157, at P 119 (2009). EMC mistakenly contends that this order supports its objections to PJM’s proposed Capacity Performance revisions to the RPM credit requirement, because, by this ruling, the Commission purportedly rejected the “idea that credit requirements and potential penalties must move in lockstep.” EMC at 7-8. However, EMC reads the order too broadly. EMC particularly overlooks the Commission’s findings that the argument it addressed in that case was beyond the scope of PJM’s filing under FPA section 205 in that proceeding, and that the party presenting the argument provided insufficient evidence to warrant the Commission instituting a proceeding under section 206 of the statute to investigate the matter. *PJM Interconnection, L.L.C.*, 128 FERC ¶ 61,157, at PP 118-19.
The credit posted under RPM rules is returned when a resource becomes operational because the risk secured by that credit – the 100 percent risk of non-performance presented by a non-existing resource – has been removed.

EMC’s own statistics appear to underscore this point. Citing various sources, EMC states that at least 89 percent of the capacity cleared in RPM Auctions for the 2013/2014 Delivery Year had no RPM credit requirement, and at least 40 percent of failures to deliver since RPM has been in operation were from resources that had no credit requirement.182 Assuming that is all correct (PJM has not independently verified EMC’s statistics), it would indicate that up to 60 percent of all failures to deliver during the 2013/2014 Delivery Year were from the roughly 11 percent of cleared resources that were subject to the RPM credit requirement. That is convincing evidence that planned resources which clear in RPM Auctions present a higher risk of non-performance than existing resources.


In an answer submitted on February 5, 2015, Panda Power Funds (“Panda”) expressed concerns about the effects of PJM’s proposed changes to the RPM credit requirements on (a) “Financed Resources,” which Panda defines as “resources that have executed an Interconnection Service Agreement (‘ISA’) and are fully financed prior to the 2015 BRA,” and (b) Planned Resources, insofar as the revised credit requirements do not vary as a project moves through the various stages of development.183 Though PJM does not necessarily agree with Panda’s pleading in its entirety, it has considered, and

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182 EMC at 11.
183 Motion for Leave to Answer and Limited Answer of Panda Power Funds, Docket No. ER15-623-000, at 12-14, 15-16 (Feb. 5, 2015).
sees merit in principle in, Panda’s suggested modifications to the revised RPM credit requirements for Financed Resources (as defined by Panda) and Planned Resources. To be clear, subject to the Commission directing PJM to include such changes in a compliance filing in this proceeding, PJM is willing to modify the proposed credit requirements for Financed Resources and Planned Resources, as described by Panda in the columns entitled “Milestones” and “% of Initial Requirements” in the table labeled “Milestones for Financed Resources” at page 13, and in the table labeled “Milestones for Permanent Solution” at page 16, of Panda’s February 5, 2015 answer, along with the proposed requirement for an independent engineer’s certification of achievement of the indicated milestones, as described at pages 13 and 16 of Panda’s pleading.

J. Elimination of the Short-Term Resource Procurement Target.

The parties appear to be divided between opposition to and support for PJM’s proposal to eliminate, commencing with the 2018/2019 Delivery Year, RPM’s Short-Term Resource Procurement Target, commonly called the “2.5 percent holdback,” in Base Residual Auctions. The 2.5 percent holdback reduces the amount of capacity PJM procures in a BRA by 2.5 percent. Capacity equivalent to that 2.5 percent is then procured over the three ensuing Scheduled Incremental Auctions for the Delivery Year. The 2.5 percent holdback was created to enable resources that are better suited to commit one or two years in advance of the Delivery Year, rather than the three years needed for

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184 Allegheny at 10-11; Joint Consumer Representatives at 28-31; ICC at 10-12; OPSI at 11-12; PaPUC at 26-29; PIOs at 21-22; Rockland at 10-14; Steel Producers at 13-14.

185 Motion to Intervene and Comments of America’s Natural Gas Alliance, Docket No. ER15-623-000, at 5 (Jan. 20, 2015) (“ANGA”); EPSA at 7-8; NRG/Dynergy at 7-8; PJM Utilities Coalition at 71-72; PSEG at 19-20.
BRA participation (referred to as “short-lead time resources”), to participate in the RPM Auctions.\textsuperscript{186}

PJM explained in the December 12 Filing that the 2.5 percent holdback is no longer required, and therefore should be eliminated.\textsuperscript{187} Opponents of this proposal rely on three arguments: (1) the 2.5 percent holdback remains justified to accommodate short lead-time resources; (2) the holdback mitigates potential over-procurement of capacity by PJM due to alleged errors in PJM’s load forecasts; and (3) eliminating the 2.5 percent holdback has no relevance to the stated purpose of the present RPM reforms to improve the performance of capacity resources. None of these contentions is persuasive. Therefore, the Commission should accept PJM’s proposal to eliminate the 2.5 percent holdback.

1. The 2.5 Percent Holdback Is Unnecessary for Short Lead-Time Resources.

The parties that contend the 2.5 percent holdback remains justified as a means of accommodating short lead-time resources uniformly fail to provide any evidence to support that claim.\textsuperscript{188} In contrast, PJM explained in the December 12 Filing that the results of recent BRAs demonstrate unequivocally that the 2.5 percent holdback is not needed for this purpose. Demand response is the principal short lead-time resource that participates in RPM, and its participation has grown to the point that, with the


\textsuperscript{187} December 12 Filing at 75-77.

\textsuperscript{188} See Allegheny at 10-11; ICC at 10-12; OPSI at 11-12; PaPUC at 26-29.
Commission’s approval, PJM last year imposed limits on the quantities of sub-annual Demand Resources and Energy Efficiency Resources that may clear in RPM Auctions.\(^{189}\)

The holdback’s supporters also fail to come to grips with the unrefuted evidence that the 2.5 percent holdback artificially suppresses BRA clearing prices. As PJM pointed out in the December 12 Filing, the IMM has repeatedly documented this effect, explaining that it is a market distortion that should be removed.\(^ {190}\) NRG/Dynegy have provided additional testimony detailing the same point.\(^ {191}\) Accordingly, even if there were any evidence that the 2.5 percent holdback was needed to assist short lead-time resources, the price distortion the holdback causes still justifies PJM’s proposal to eliminate it.

\[2. \text{ PJM’s Ongoing Measures to Mitigate Inevitable Load Forecasting Inaccuracies Make the 2.5 Percent Holdback an Excessive and Counterproductive Means of Countering Past Forecasting Issues.}\]

Supporters of the 2.5 percent holdback also contend that it should be retained because it counteracts what they call consistent over-forecasting by PJM of the system demand on which its BRA procurements are based.\(^ {192}\) PJM agrees that it should do all it can to make its load forecasts as accurate as possible, and it has taken specific steps already to address this issue, even as it continues to analyze, and make adjustments to, its

\(^{189}\) December 12 Filing at 75-76 (citing \textit{PJM Interconnection, L.L.C.}, 146 FERC ¶ 61,052 (2014)).

\(^{190}\) \textit{See} December 12 Filing at 76 nn.213, 214. Ironically, Allegheny cites the same price suppression as a factor purportedly in favor of \textit{retaining} the 2.5 percent holdback, stating that the clearing price in the 2017/2018 BRA would have provided capacity resources $2.4 billion more revenue if the holdback had not been used. Allegheny Protest at 11.

\(^ {191}\) \textit{See} NRG/Dynegy, Report of Dr. John R. Morris at 25.

\(^ {192}\) Allegheny at 11; Joint Consumer Representatives at 28-31; Ohio PUC at 13-14; Rockland Electric at 10-14.
load forecast model in collaboration with the Load Analysis Subcommittee.\textsuperscript{193} For the 2015 Load Forecast Report released in early January, 2015, PJM introduced a binary variable\textsuperscript{194} into the load forecast model, a well-accepted statistical technique, in order to adjust the starting point of the forecast downward by the approximate amount that has been over-forecasted over the last two summers. This adjustment will carry forward to all future RPM Auctions, including the 2015 BRA for the 2018/2019 Delivery Year. PJM also continues to examine the extent to which past differences between the load forecast and actual delivery year loads related to changes in the economy generally versus more structural issues such as the role of energy efficiency.

However, even apart from PJM’s ongoing efforts to improve its load forecasts, any past over-statements of demand do not, of themselves, justify the 2.5 percent holdback. To the extent the holdback may have compensated somewhat for over-forecasting, that is a wholly unintended consequence. Another such unintended consequence is the holdback’s effect of artificially depressing BRA clearing prices by withholding demand, as noted above. A primary objective of RPM is to provide accurate price signals regarding the need for investment in capacity resources to ensure resource adequacy. The IMM has pointed out that the 2.5 percent holdback, however, is inconsistent with that goal. Therefore, since PJM and its stakeholders have addressed, and remain engaged in analyzing and correcting apparent inaccuracies, in PJM’s load


\textsuperscript{194} In regression analysis, a binary variable is one that takes the value of 0 or 1 to indicate the absence or presence of some categorical effect. In this case, the binary variable is set to 1 for 2013 and 2014 and to 0 for all other years.
forecast methodology, any salutary effects the holdback may have had relative to PJM’s past load forecasts do not warrant allowing the holdback to continue.

3. **Eliminating the 2.5 Percent Holdback Is Directly Related to the Purpose of PJM’s Capacity Performance Reforms.**

Finally, some protestors contend the Commission should reject eliminating the 2.5 percent holdback because the proposal purportedly is beyond the scope of the purpose of PJM’s Capacity Performance proposal.\(^\text{195}\) The Commission should not accept this argument as it is contrary to applicable law, as well as the nature of this filing. First, even assuming for the sake of argument that eliminating the 2.5 percent holdback was not related to other aspects of PJM’s Capacity Performance reforms, PJM still would have the right under section 205 of the FPA to propose to eliminate the holdback, subject to showing that doing so is just and reasonable. There is no requirement that all aspects of a section 205 filing must be closely related to one another. Second, the goal of PJM’s Capacity Performance proposal is to create a capacity market where PJM can acquire, at the lowest reasonable price, sufficient Capacity Performance Resources to ensure resource adequacy and reliable service to consumers in the PJM Region. Because eliminating the 2.5 percent holdback will end concerns with the holdback’s price suppression effect on BRA clearing prices, PJM’s proposal to end the holdback is, in fact, directly related to the purpose of the Capacity Performance reform package.

**K. Comparable Capacity Performance Requirements Can, and Should, Apply to FRR Entities**

PJM proposes changes to the FRR rules to conform with the Capacity Performance proposal. In essence, PJM proposes that an FRR Capacity Plan include

\(^{195}\) Allegheny at 10-11; ICC at 12.
Capacity Performance Resources and Base Capacity Resources in the same proportions PJM proposes for RPM during the transitional 2018/2019 and 2019/2020 Delivery Years.

PJM also proposes applying the same level of Non-Performance Charges to FRR Entities whose resources fail to perform during Performance Assessment Hours, but with the option of electing, at the time the FRR Entity submits its FRR Capacity Plan, to satisfy any Non-Performance Charges either physically (with increased capacity in the next Delivery Year’s FRR Capacity Plan) or financial (with a payment). 196

Several parties protest PJM’s proposal to apply the Capacity Performance proposal to FRR Entities. 197 These commenters contend PJM’s proposal infringes on state jurisdictional authority, and is inconsistent with Commission precedent that established the FRR Alternative. These claims are without merit. Currently, the FRR Alternative requires FRR Entities to develop an FRR Capacity Plan that contains resources that perform as PJM expects Capacity Resources to perform. *PJM seeks nothing more here.* Just as the Ohio PUC noted in its comments, because capacity performance is a reliability initiative, it must apply to *all* generation resources, including FRR Entities. 198 To do otherwise would effectively hold some generating units in PJM’s

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196 See proposed RAA, Schedule 8.1, sections C.1, G.1, & G.2.


198 Ohio PUC at 11-12.
footprint to higher standards than others. Therefore, it is just and reasonable to establish the same Capacity Performance standard for FRR Entities that are compiling a plan of Capacity Resources to serve the loads in their defined service areas.

1. The Proposed Tariff Changes Applying Capacity Performance Rules to FRR Entities Are Well Within the Commission’s Jurisdiction.

The Michigan Commission contends that the proposed Tariff changes, as they relate to FRR Entities, “would infringe on state jurisdictional authority over generation by effectively limiting the types of generation resources that FRR can rely upon beyond that which has otherwise been approved by the state.”\textsuperscript{199}

The FRR provisions of RPM were an economic means for certain regulated regions to meet their capacity obligations through a form of self-supply rather than through the centralized RPM market. But the FRR provisions were never designed (or intended) to allow different performance criteria for capacity resources in FRR regions versus non-FRR regions. Contrary to the Michigan Commission, the nature of the Capacity Resources that an LSE (including an FRR Entity) must provide or procure to satisfy its PJM Region capacity obligation has always been addressed in the Commission-jurisdictional RAA. For as long as there has been an FRR Alternative, FRR Entities and LSEs that meet their capacity needs through the RPM Auctions, have relied on a common definition of Capacity Resources,\textsuperscript{200} a common resource deliverability requirement,\textsuperscript{201} and common locational requirements.\textsuperscript{202} Whether deployed through an RPM Auction or an FRR Capacity Plan, Generation Capacity Resources have always been subject to the

\textsuperscript{199} MI PSC at 3.
\textsuperscript{200} See RAA, section 1.8.
\textsuperscript{201} See RAA, Schedule 10.
\textsuperscript{202} See RAA, Schedule 10.1; see also id., Schedule 8.1, section D.5.
same capability determination procedures, the same Installed Capacity (“ICAP”) testing requirement and ICAP deficiency determinations, and the same rules under the Peak-Hour Period Performance Assessment Charge for determining resource performance deficiencies. These common rules and requirements for Capacity Resources reflect the mutual reliance of LSEs in the PJM Region on the Capacity Resources that each LSE provides or procures to satisfy the capacity requirement for its particular loads. That mutual reliance and mutual support is the defining characteristic of the regional capacity arrangement embodied in the RAA.

PJM’s proposal in this proceeding, i.e., to more rigorously define capacity as a commitment to provide energy and reserves during emergencies throughout the year, necessarily must apply to capacity throughout the PJM Region. If PJM Region capacity procured through an RPM Auction were required to meet year-round performance expectations, but PJM Region capacity identified in an FRR Capacity Plan was not held to the same performance standard, then the eventual result would be that FRR loads would unfairly lean on RPM capacity to meet the FRR loads’ needs during emergencies. That result would be unfair and contrary to the fundamental expectations embodied in the RAA’s regional capacity arrangement. Since PJM has an affirmative obligation to

203 See RAA, Schedule 9.

204 See Tariff, Attachment DD, section 7; RAA, Schedule 8.1, section G (applying section 7 resource testing requirement to FRR Capacity Resources).

205 See proposed Tariff, Attachment DD, section 10A; RAA, Schedule 8.1, section G (applying PHPA rules to FRR Capacity Resources).

206 PJM Interconnection, L.L.C., 96 FERC ¶ 61,060, at 61,213-14 (2001) (generally approving filing “designed to make reliability rules for PJM West compatible with the rest of PJM; thus precluding one area from unfairly ‘leaning’ on the other”), order on reh’g, 116 FERC ¶ 61,253 (2006); see also PJM
utilize all the resources to “keep the lights on” throughout the footprint, whether in an FRR area or non-FRR areas, allowing different levels of performance criteria inevitably allows one part of the footprint to lean on the rest of the system.

Capacity arrangements such as those embodied in the RAA and related Tariff provisions are well settled as being within the Commission’s jurisdiction. A state’s choice to rely on a particular generator to meet state objectives does not detract from the Commission’s exclusive jurisdiction to set the rates, terms, conditions, and practices of a wholesale interstate power agreement like the RAA. As the court explained in NJBPU, “even if the states’ preferred generation resources fail to clear the auction, the states are free to use them anyway; the only caveat is that the states cannot use the resources to offset their capacity obligations in the RPM, as such obligations can only be satisfied by resources that are [determined through the RPM procedures].”

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Interconnection, L.L.C., 108 FERC ¶ 61,318, at PP 53-54 & n.49 (2004) (application of West RAA to existing generators and all LSEs in the AEP and DP&L control areas); PJM Interconnection, L.L.C., 106 FERC ¶ 61,253, at P 45 (recognizing that preexisting reserve rules in the Commonwealth Edison control area (NICA) cannot be maintained because they “do not provide the individual LSE commitments and specific resource identification needed for loads in NICA to participate in the PJM market on the same basis as other LSEs in PJM”), order on reh’g, 109 FERC ¶ 61,094 (2004); PJM Interconnection, L.L.C., 103 FERC ¶ 61,250, at P 6 (2003) (accepting filing to implement common unforced capacity approach throughout PJM, finding that “[a] single capacity market will create the same rules and incentives for all customers”).


NJBPU at 97.
2. **It Is Appropriate for FRR Capacity Plans to Contain Resources That Can Provide Energy and Reserves When Needed, Particularly During Emergency Conditions.**

Protests that PJM’s proposal is inconsistent with Commission precedent regarding application of RPM rules to FRR Entities, or that PJM’s proposal is inconsistent with the original orders establishing the FRR Alternative are off the mark. Contrary to these claims, PJM’s proposal does not upset the historical balance struck on behalf of FRR Entities who elect self-supply to meet their resource adequacy needs. PJM asks nothing more of FRR Entities than of Capacity Market Sellers in ensuring that the resources used to meet resource adequacy requirements will be there to provide energy and reserves when the system needs them during emergency conditions. As explained in the December 12 Filing, PJM learned from experience that the Capacity Resources committed to meet resource adequacy requirements were, on the whole, not performing as PJM expected. To remedy this, PJM has proposed reforms that will encourage Capacity Resources to make necessary investments to ensure performance during emergency conditions. Some commenters claim FRR Entities’ FRR Capacity Plans

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209 See AEP/DEK at 5, 9-13. AEP/DEK cite to the self-supply exemption of the Minimum Offer Price Rule (“MOPR”) to support their claim the Commission has exempted FRR Entities from RPM rules and it should do so here. AEP/DEK at 15, (citing *PJM Interconnection, L.L.C.*, 143 FERC ¶ 61,090, at PP 110-11 (2013)). The referenced MOPR case is inapposite to the issues at hand. That case did not say all RPM rules would be inappropriate for FRR Entities (as AEP/DEK seem to imply); rather it said rules aimed at guarding against market price suppression would not necessarily apply to vertically-integrated entities in regulated states engaging in self-supply. PJM’s Capacity Performance proposal is aimed at ensuring Capacity Resources perform as intended – i.e., are there when most needed; an issue wholly different from the issue addressed in the cited MOPR proceeding.

210 December 12 Filing at 6-7; *supra* section II.A.
contain resources that have superior performance to RPM Capacity Resources. Some claim FRR Capacity Plans already provide adequate assurances FRR Entities will meet PJM’s reliability needs, and take into account load growth. If these claims are indeed true, then no further investments will be necessary, nor will there be a requirement to reform contracts, as OPSI and AEP/DEK purportedly fear.

Some commenters contend the zero tolerance policy and requirement that one hundred percent of the FRR Capacity Plan’s resources perform one hundred percent of the time, is beyond what the states have imposed, and, thus, for PJM to impose such a requirement on FRR Entities treads on state jurisdiction. This comment misconstrues PJM’s intentions. PJM does not expect all resources to perform all of the time. Rather, PJM expects that FRR Capacity Plan resources will perform at the same level as all other Capacity Performance Resources, and to perform when the system needs them most—during emergency conditions. The FRR Alternative is an economic construct, and provides no exceptions from reliability criteria or resource adequacy requirements. During emergencies, PJM calls on all its capacity in the PJM Region, regardless of whether it is included in an FRR Capacity Plan or committed in RPM.

PJM will apply the same balancing ratio that it will apply to RPM Capacity Market Sellers when determining the “Expected Performance” of FRR Capacity Plan resources. Therefore, if FRR Capacity Plans have resources that have superior performance and they are designed to meet PJM’s reliability needs as indicated by

\[E.g., \text{AEP/DEK at 26.}\]

\[\text{AEP/DEK at 2-4; MI PSC at 4-7.}\]

\[\text{AEP/DEK at 23-26; OPSI at 10.}\]

\[\text{AEP/DEK at 7-8, 26-30.}\]
commenters, then the FRR Entities will face no aggregate Non-Performance Charge risk. Only those FRR Entities that have underperforming resources will face performance payment risk, which is a reasonable result given the stated obligation of FRR Capacity Plans to meet reliability needs.

Finally, AEP/DEK are concerned about the timing aspects of certain FRR requirements relative to the upcoming BRA for the 2018/2019 Delivery Year. The FRR Plan itself is not due until April 11, 2015, after the effective date PJM has requested for the Capacity Performance reforms. However, the date for LSEs to elect the FRR Alternative for the 2018/2019 Delivery Year is prior to the requested effective date—March 11, 2015. Accordingly, if an LSE needs until after the Commission issues its order in this proceeding to make such election, PJM would be agreeable to a waiver of the March 11 date to accommodate that.

3. FRR Entities Reasonably Are Subject to Non-Performance Charges Just Like RPM Capacity Market Sellers Who Fail To Perform during Performance Assessment Hours.

Some protest the non-performance payment structure and are concerned that FRR Entities, which are subject to cost-of-service based rates, may not be able to pass through increased costs. These commenters say FRR Entities should not be subject to the same penalties as apply to market participants in RPM. They also argue the penalty structure fails to appreciate the state PUCs’ expertise in ensuring resource adequacy and is pre-

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216 AEP/DEK at 23-26; MI PSC at 10.
217 See AEP/DEK at 25.
emptive of state’s rights. PJM’s current FRR rules apply the same capacity deficiency penalties to FRR entities as to RPM Capacity Market Sellers. Protesters have failed to support why PJM’s continued application of what is, in effect, a deficiency charge would now be considered pre-emptive of state’s rights.

In recognition of FRR Entities’ concern that because of retail rate constraints on FRR Entities, it may not be feasible for them to pay Non-Performance Charges, PJM proposes allowing FRR Entities the alternative of accounting for non-performance during a Delivery Year by including additional megawatts of capacity in their FRR Capacity Plans for the next Delivery Year. Specifically, PJM proposes that such physical repayment equal 0.5 MW of additional capacity for each MW of Actual Performance less than Expected Performance during Performance Assessment Hours. The IMM argues the physical alternative is inadequate, while AEP/DEK argue PJM has not justified its 50% level and will result in excessive penalties.

PJM adopted the 50% level for physical non-performance payments consistent with the maximum Non-Performance Charge of 1.5 times Net CONE under proposed Attachment DD, Section 10A. PJM included a monthly stop-loss for Capacity Performance Resources equal to one third of that maximum amount for each month in which there are Performance Assessment Hours, with an annual stop-loss of 1.5 times Net CONE. PJM is willing to include a similar monthly stop-loss for FRR Entities

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218 AEP/DEK at 28.

219 See proposed RAA, Schedule 8.1, section G.2.

220 IMM at 24.

221 AEP/DEK at 32-35. AEP/DEK says FERC should require PJM modify its proposal so the physical payment is based on average forced outage MWs during emergency conditions rather than the maximum forced outage MWs. Id. at 32.
choosing the physical payment option. Accordingly, should the Commission so direct, PJM would modify the Tariff to provide that an FRR Entity that chooses the physical payment option and incurs a non-performance penalty would accrue an obligation to add 0.166 MW to its Capacity Plan for the next Delivery Year for each month that includes Performance Assessment Hours, with the total penalty not to exceed 0.5 MW for each MW of non-performance. Thus, if the PJM system has Performance Assessment Hours during only one month, the FRR Entity will be subject to, at most, 0.166 MW of additional capacity per MW of non-performance required for the next Delivery Year (rather than the full 0.5 MWs as proposed) if it failed to perform during that month.

AEP/DEK also argue that, if the Commission accepts PJM’s proposal to apply Capacity Performance to FRR Entities, FRR Entities should be allowed to elect financial or physical payment at the time the non-performance assessment is done. While PJM proposed to align the election with the time the FRR Entity submits its first FRR Capacity Plan, to provide additional flexibility to FRR Entities, and in order to know in advance which entities will be making financial payments versus physical payments, PJM is willing to revise its proposals, should the Commission so direct, such to allow the election prior to the start of each Delivery Year.

Finally, the Michigan Commission argues that PJM should apply bonus payments to FRR Entities for over-performance even if those entities elected physical payment. The Michigan Commission provides no basis for allowing an entity which chooses the physical payment option to “mix and match” in order to receive a financial bonus performance payment if it over-performs. Since such an entity does not contribute to the

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222 AEP/DEK at 31.

223 MI PSC at 9-10.
revenues collected from under-performing entities at times when its resources underperform, it should not be allocated a share of such revenues in the event its resources over-perform. Moreover, the physical option is intended to be comparable to the financial penalties that apply to non-FRR Entities. The Commission should accept PJM’s proposal, which is designed to ensure that the physical option for FRR Entities has incentives and disincentives equal to those for non-FRR resources, and is not discriminatory to resources in non-FRR regions.

L. PJM’s Proposed Modifications to the Definitions of Existing and Planned Generation Capacity Resources Are Just and Reasonable and Raise No Market Power Concerns.

To support PJM’s goal of ensuring Capacity Resources are physically capable of performing – that is, of delivering energy and reserves when needed during emergency conditions – PJM proposes modifications to the definitions of Existing Generation Capacity Resource and Planned Generation Capacity Resource. The current definition of Existing Generation Capacity Resource includes resources not yet in service, but which have cleared an RPM Auction. PJM proposes that a resource that is not yet in service will remain a Planned Generation Resource until it reaches full commercial operation and commences Interconnection Service.\(^{224}\) Such a resource would not be required to submit a Sell Offer or seek an exception to the must-offer requirement if it has reason to believe it will not be in service by the relevant Delivery Year. PJM also proposes that an internal or external Planned Generation Capacity Resource that is greater than 20 MWs in size

\(^{224}\) See proposed RAA, section 1.20B.
must wait until it has executed a Facilities Study Agreement (rather than the earlier System Impact Study Agreement) before it is permitted to offer into a BRA.\textsuperscript{225}

The IMM protests these proposals, arguing that once a Planned Generation Capacity Resource has cleared an RPM Auction, it should have a continuing requirement to submit Sell Offers in subsequent RPM Auctions.\textsuperscript{226} The IMM says PJM’s proposed revisions weaken PJM’s must offer requirement, which is meant to mitigate against the exercise of market power through physical withholding of capacity from the RPM market.

The IMM’s concerns are without merit for the simple reason that generating resources that have yet to reach commercial operation cannot withhold any capacity from the market. New resources inherently cannot exercise market power, as they only add to competition among suppliers. However, the must-offer requirement may act as a barrier to entry for resources that have yet to reach commercial operation, because a resource not yet built faces significant uncertainty in completing the project on-time (e.g., delays in materials and equipment, permitting, etc.). A must-offer requirement increases the risk that such a resource will clear for a Delivery Year for which it knows it will be unable to deliver and therefore will need to buy replacement capacity (perhaps at above the BRA clearing price). It would be unreasonable to subject Planned Generation Resources to the must-offer requirement simply because they cleared in a single RPM Auction. Accordingly, given the absence of market power concerns, it is reasonable for PJM to consider all generation resources that have yet to begin commercial operations as Planned

\textsuperscript{225} See proposed RAA, sections 1.69A & 1.70.

\textsuperscript{226} IMM at 6-9.
Generation Capacity Resources, regardless of whether such a resource has cleared an RPM Auction. Thus, a Planned Generation Capacity Resource that has cleared in one RPM Auction may voluntarily offer to sell its capacity in other RPM Auctions, but such resources should not be required to do so.

The Illinois Commission protests the proposed change to the requirement that a Planned Generation Capacity Resource must have an executed Facilities Study Agreement before it can offer into a BRA. It asserts that PJM has not demonstrated negative outcomes from such resources offering into a BRA after executing a System Impact Study Agreement.227

However, PJM’s experience teaches that a developer is much more likely to complete its project for the relevant Delivery Year once it has executed a Facilities Study Agreement. Only approximately 40% of projects for which a System Impact Study has been completed reach commercial operation. In contrast, approximately 80% of projects for which a Facilities Study has been completed reach commercial operation. Just as important as the greatly increased likelihood of project completion, this data also shows that most projects (nearly 60%) that reach the System Impact Study stage do not reach commercial operation. That is an unacceptably low success rate for projects that may clear a BRA and set capacity prices for the region. Thus, the Commission should accept as just and reasonable PJM’s proposal to ensure only those resources which are more likely than not to be in service by the relevant Delivery Year will be permitted to offer into a BRA.

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M. The Commission Should Reject the Requests for a Five-Month Suspension or Hearing or Other Procedures, and Should Instead Approve the December 12 Filing to Be Effective April 1, 2015.

Various parties contend that the December 12 Filing should be suspended for five months, or assert that it should be set for hearing or other procedures. However, none of these parties justifies suspension or additional procedures, and the Commission should deny these requests.

1. The Calls for a Five-Month Suspension Should Be Rejected.

Claims that the Commission should suspend for five months the Tariff and RAA revisions proposed in the December 12 Filing are unjustified and should be rejected. Throughout this Answer and in the December 12 Filing, PJM has demonstrated that its proposed changes are just, reasonable, consistent with Commission and court precedent, and carefully crafted to incent necessary improvements in Capacity Resource performance. The Commission’s policy is to impose a five-month suspension only when its “preliminary analysis indicates that proposed rates may be unjust and unreasonable and substantially excessive.” However, no party has shown that the charges that will

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228 AEMA at 28; AMP/ODEC/SMEC at 78; Joint Consumer Representatives at 36; This would delay the effective date of the proposed changes until well after the May 11, 2015 start of the 2018/2019 BRA.


result from the December 12 Filing may be unjust and unreasonable and substantially excessive. The changes proposed in the December 12 Filing balance the need for enhanced resource adequacy (which is for the ultimate benefit of consumers) and adequate compensation for capacity resources, with the need to ensure that rates remain just and reasonable. Resources will be paid the clearing prices established in the applicable RPM Auctions, just as occurs today. PJM proposes a five-year transition period to full reliance on Capacity Performance Resources both to provide resources the time to invest in and build or implement improvements to facilities, and to protect ratepayers from potential price volatility or shortage concerns that might be expected from an immediate requirement of 100 percent Capacity Performance Resources.\textsuperscript{231} The RPM market mitigation rules will continue to protect ratepayers against excessive prices.

In addition, granting a five-month suspension would push the effective date of the reforms proposed in the December 12 Filing from April 1, 2015 to September 1, 2015, well past the May 2015 dates for the 2018/2019 BRA.\textsuperscript{232} PJM has demonstrated that its capacity resource performance rules need correction. There is no persuasive justification for delaying the necessary modifications to those rules, and suspending the proposed changes past the May 2015 BRA would unnecessarily delay important aspects of the

\begin{itemize}
\item \textsuperscript{231} December 12 Filing at 28.
\end{itemize}
transition to full reliance on Capacity Performance Resources. Accordingly, the Commission should reject the requests for suspension of PJM’s December 12 Filing.

2. There Are No Disputed Issues of Material Fact that Warrant a Hearing.

The standard for when the Commission must convene a trial-type hearing is clear: such a hearing is required only where disputes arise that may involve issues of witness credibility and similar concerns.\textsuperscript{233} Moreover, even when there are disputed issues of material facts, the Commission is not obliged to hold an evidentiary hearing when it can resolve such issues based on the written record before it.\textsuperscript{234} The Commission should reject all requests for a hearing or other procedures in this case. The December 12 Filing involves forward-looking changes in PJM’s capacity market design. It is fully supported by PJM extensive transmittal letter and by Mr. Falin’s affidavit explaining the reasons for PJM’s Capacity Performance proposal, and the protestors have not raised any legitimate challenges to the credibility of this evidence.

The requests that the Commission set the December 12 Filing for an evidentiary hearing likewise fail to identify any disputed issues of material fact that warrant a

\textsuperscript{233} See Blumenthal v. FERC, 613 F.3d 1142, 1144 (D.C. Cir. 2010) (stating FERC’s choice to hold an evidentiary hearing is discretionary); Cal.ex rel. Lockyer v. FERC, 329 F.3d 700, 708-09 (9th Cir. 2003) (the Commission does not need to convene a hearing when there are no issues of disputed fact and the Commission can decide issues as a matter of law); Midcontinent Indep. Sys. Operator, Inc., 149 FERC ¶ 61,225, at P 60 (2014) (rejecting request for hearing on the basis that there were no questions of material fact); PJM Interconnection, L.L.C., 117 FERC ¶ 61,218, at P 69 (2006) (the Commission does not need to conduct a hearing when there are no disputed issues of material fact and issues can be resolved based on the written record).

\textsuperscript{234} See Moreau v. FERC, 982 F.2d 556, 568 (D.C. Cir. 1993); see also Blumenthal, 613 F.3d at 1145.
A party seeking a hearing must do more than merely allege that there are material issues of fact in dispute. Instead, a party requesting a trial-type hearing must proffer evidence adequate to demonstrate that a hearing is necessary. But, the protests and comments submitted here present only legal and policy issues that the Commission can and should resolve on the written record before it.

The Commission fully addressed, on a written record and without a hearing, the similar package of Capacity Market reforms submitted to it by ISO New England. Therefore, the Commission should deny the requests for further procedures, and should issue an order on the merits of the December 12 Filing at the earliest feasible date consistent with PJM’s proposed effective date of April 1, 2015.

III. CONCLUSION

For the reasons stated in the December 12 Filing and further detailed in this Answer, PJM requests that the Commission accept the proposed Tariff and RAA revisions submitted in this docket, subject to the modifications and clarifications described above (to the extent so directed by the Commission), to be effective April 1, 2015.

235 For example, Joint Consumer Representatives simply present a list of issues that it claims justify a hearing. Joint Consumer Representatives at 36. AEMA does not even allege that there are any disputed issues. PIOs simply state they support other parties’ requests for a hearing. PIOs at 2, 27. Essential Power Companies base their request for a hearing on the perceived inadequacies with the stakeholder process. PIOs at 2, 27. Essential Power at 4. While PJM disagrees that the stakeholder process was inadequate, this is not the correct standard. Instead, the issue is whether the filing presents disputed issues of material fact that cannot be resolved on the basis of the written record before the Commission. See supra notes [233-234].


237 See ISO-NE Pay for Performance, supra.
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 Washington, D.C., this 13th day of February, 2015.

/s/ Paul M. Flynn

Paul M. Flynn