Re: PJM Capacity Performance Proposal

Dear Sirs:

The Advanced Energy Management Alliance (AEMA) welcomes this opportunity to provide comments and thoughts on PJM’s Capacity Performance Proposal as published by PJM Staff on August 20, 2014. AEMA is a trade association that advocates policies that empower and compensate customers to manage their energy usage to make the electric grid more efficient, more reliable, more environmentally friendly, and less expensive. While AEMA is not itself a member of PJM, members of AEMA who are also members of PJM (noted below)¹ identified common interests regarding the PJM proposal, and as such collectively submit these comments for PJM’s consideration under the AEMA name for ease of administration and efficiency of time.

Sincerely,

Bruce Campbell
Secretary Treasurer AEMA

Cc
Katherine Hamilton, Executive Director, AEMA

¹ AEMA members include Comverge, EnergyConnect, Enernoc, Walmart (Texas Retail Energy)
Comments on PJM Capacity Performance Proposal

AEMA supports the PJM objective that reforms should be sought given the “potentially significant reliability issue” posed by “last winter’s generator performance.” (See PJM Proposal at Pg. 4) The lack of proper performance incentives faced by generators, and the difficulties generators face in properly reflecting and recovering the costs necessary to accomplish firm fuel availability and flexibility, directly contributed to the high forced outage rates seen this past winter, and should be addressed directly. AEMA supports PJM’s intent to address the reliability issues faced with generators this past winter, but as more fully described herein, believes PJM’s initial proposal is broader than necessary, could have serious unintended consequences, and can be accomplished via a more narrowly tailored set of changes which would preserve the successes accomplished by the Reliability Pricing Model (“RPM”) to date.

PJM’s proposal to add an entirely new Capacity product called Capacity Performance (CP) is unnecessary. Introduction of a new product will disrupt the physical and economic success that the RPM has provided the system, and will improperly negatively impact many resources that have performed reliably and consistently. Rather, PJM can accomplish its objectives with more tailored reforms specifically targeted at the resources and issues that created the reliability issues this past winter that will create higher likelihood of successful impact and lower the risk of unintended consequences.

First, we support the concept of more focused performance metrics for generation resources. As noted by PJM in its Problem Statement published August 1, 2014, currently for generators “there is little risk of incurring a capacity market penalty for being unavailable during reliability critical events.” (See Pg 12) This is unacceptable, particularly given that Demand Resource (“DR”) performance criteria in RPM have always been based on delivery of resources during peak events. The performance penalty structure for DR is specifically structured around the need to be there when called upon. While AEMA acknowledges that the performance expectation for DR resources is different than that for generation resources, which is appropriate, the point is that the
penalties match the performance expectations of the resource. These penalty criteria for DR are such that significant and substantial loss of revenue, potentially all revenue, will be suffered if performance obligations are not met. While a risky penalty structure for DR to face, it has been a justified structure because of the link between actual performance obligations and needs of the system, rather than simple availability. The current criteria for generation resources, however, reward only availability during possible peak event periods not performance during actual peaks. PJM must now focus on actual performance from generation as they have already with demand resources.

PJM’s design peak demands are 5 to 10% higher than average seasonal peaks. RPM is designed to assure that resources that are only needed for a few hours each year have appropriate economic incentives. That has been the justification for the more significant penalty structure faced by DR. While availability requirements were lower and did not match that of generation, the penalty for failure to perform when called upon was much more severe. However, as noted by PJM “insufficient peak period penalties [for generators] as currently in the PJM Tariff provide a disincentive to make investments in generation resources to make them available during low probability, high reliability impact events.” (See PJM Problem Statement at Pg. 12). While this has been true for some time, the impacts felt by the extreme weather experienced this past winter clearly demonstrate that performance metrics that fail to incent actual performance from generation should be reviewed.

While AEMA does not comment on the specific generator performance penalty proposal included by PJM in Capacity Performance proposal, AEMA believes that it may serve as a model in the right direction for the type of generator penalty reforms critical to the ongoing reliability of the system. We believe that properly aligned performance similar to those proposed by PJM will provide adequate incentives for generators to budget for and spend on maintenance and winterization needs such as space heating, heat tracing and insulation. Plant operators can have difficulty justifying such spending if the performance metrics allow availability on low demand days to offset availability on high
demand days. However generator penalty reforms, such as that proposed by PJM, can be accomplished without the introduction of an entirely new capacity product.

Second, we support enhancement of mitigation rules regarding fuel availability and inclusion of costs for firm gas delivery or back up fuel in Avoidable Cost Rate (ACR) determinations. The cost of more reliable and flexible fuel supply can reasonably be incorporated into the ACR. PJM’s proposed solution to impose more stringent penalties while increasing resource revenue potential to provide the funds necessary to invest back in resources in order to ensure performance when needed most, can be accomplished without the unnecessary introduction of a new capacity product. PJM has also suggested that more focused performance criteria would create increased risk for generators, the cost of which should be included in the ACR. AEMA fully supports the need for changes to allow generators “to reflect in their capacity market offers, specifically with the Market Seller Offer Caps for Generation Capacity Resources, the costs of ensuring performance during system peaks.” (See PJM Proposal at Pg. 29) Such a view should take into account the historical performance of generation during events. This history should take into account that the apparent winter risk is very dispersed with temperature impacts occurring once a decade or even less frequently. AEMA believes the combination of increasing generator performance penalties and the risk for failing to perform when needed most, along with allowing generators the right to proper cost recovery that is necessary to justify the needed investments in O&M and fuel availability and diversity, are the kinds of specific and narrowly tailored reforms that should be pursued by PJM without the introduction of a new capacity product. These reforms are actually targeted at the issues faced this past winter, will incent the kind of performance PJM and the system needs, while avoiding unnecessary and unintended economic and reliability consequences that the current PJM proposal will create.

While the issues encountered this past winter were largely driven by generator resources, the solutions proposed by PJM will improperly and detrimentally impact Demand Response. While it is understandable how PJM must account for the summer-only obligations of Limited and Extended Summer Resources in their analysis, PJM’s
proposed solutions improperly penalize those resources who show up reliably even when only called upon voluntarily. At a time of unprecedented generator outages from resources whose obligations were to be there when dispatched, Demand Response responded even when not obligated to do so.\textsuperscript{2} It seems counterintuitive that PJM would implement changes to potentially procure less of a resource that has provided the reliability necessary for the system, while procuring more of resources that were potentially among those who were not available when called upon. PJM should be focusing its reform efforts on the resources whose performance when called upon created issues, while seeking to maintain the demand resources that have performed reliably in both mandatory and voluntary dispatches.

Additionally, compounding the serious questions regarding cost and impact that the introduction of a new capacity product creates, the PJM proposal does not address market power issues. It should be noted that the RPM model currently devotes 20 tariff pages to describing how market power will be managed. Yet in its proposal, PJM blithely assumes that if “the design of the Capacity Performance product works as intended, there should be a sufficient incentive for most, if not all resources to offer the Capacity Performance product.” PJM’s assumption results in having no provisions to address market power. This assumption belies the incentive of owners of generation portfolios to simply decline to offer some resources as CP in order to inflate clearing prices for CP capable resources in their portfolios. The excessive margins achievable by such a strategy would readily cover the costs of Base Capacity resources that remain in the market (or not) but have a much reduced or even eliminated performance obligation. The fact that generation resources have consistently not cleared in the BRA but then willingly offered in Incremental Auctions at much lower prices provides justification that concerns of market power must be addressed in any new proposal. If the added Capacity

Performance concept is pursued the potential for abuse of market power must be satisfactorily addressed.

Moreover, PJM’s assumption that most resources will offer the CP product ignores a fundamental barrier that current designs erect for Demand Response resources. A CP product will simply raise these barriers higher for Demand Response. Unlike the provisions for generators, which are guaranteed incremental (hourly) cost recovery, Annual and even Extended Summer Demand Response takes on an unlimited response obligation without any such guarantee. There are sound reasons for this, including very real challenges in determining incremental costs and the administrative cost of doing so for a large number of small resources with vastly differing cost structures. These challenges are the basis of the long standing approach of limiting DR commitments in terms of events and hours while enforcing appropriately stringent performance penalties as discussed above.

In addition to the overarching concerns with the introduction of the new Capacity Performance product discussed above, AEMA has concerns that PJM’s proposal with regard to DR’s ability to serve as Capacity Performance is so narrow that it will severely limit opportunities and motivation for DR to continue to participate as capacity DR in the Capacity Performance category despite a track record of consistent and reliable participation and performance. With these unreasonable barriers to entry, combined with the issues presented by the proposed caps PJM has set forth for each capacity product, discussed below, PJM runs the very real risk of forcing customers, who have made investments in and commitments to curtailment capabilities, to use them not to formally participate as capacity resources, but to engage in out of market peak reduction efforts. PJM will in turn lose the operational control they have fought so hard to accomplish, and create issues for forecasting and procurement, which may prompt the need to yet another round of capacity reforms. Specifically, DR has several characteristics that differentiate from generators that result in a very different risk profile and make the introduction of the new Capacity Performance product as defined by PJM an unreasonable barrier to entry for DR in the capacity market. For example:
For DR investing in management of performance risk is not as simple, direct, or even times possible, as it is with generation. Investments in fuel delivery are not an option for those who participate via true reduction. Likewise, insulation and heating maintenance will not improve availability. Performance risk is actively managed by DR providers, but through tools like aggregation and portfolio management. Increasing capacity prices to foster reinvestment in resources in order to improve performance does not work with the kinds of tools that DR uses to manage performance risk. Additionally as discussed, performance risk for DR is managed by the market structure through the significant penalties faced for failure to perform, which is already in place and successful. As such, it is unnecessary to introduce a new capacity product, but rather implement the changes we discuss above to accomplish the reinvestment in generation resources discussed above.

Unlike generators, most DR has incremental (hourly) costs of curtailment that are not recovered in energy payments. This means that each event represents a loss of revenue for participation and more events mean an even greater loss – even if the resource fully meets its obligation. An open ended commitment is a barrier to entry.

Because Demand Response performance is measured differently in energy markets than in capacity markets, it is possible, even likely, that Demand Response that is in full compliance with all capacity obligations may not be able to meet the day-ahead must offer requirements. The must offer requirement for Demand Response should be limited to a requirement to offer the amount of energy that would be delivered by a site curtailing to its FSL. In other words, a Demand Response site that drops to its FSL should always be in compliance with the requirements of the proposed Capacity Performance product and face no penalties.

In part because DR may not even recover incremental costs, the potential for 7 times increase in prospective performance penalties will create an unreasonable
barrier to entry for customers to participate as a DR Capacity Performance resource. In addition to the reality that the penalty rate of Real Time LMP will likely be a nonstarter for all but the resources with the lowest incremental costs, there is the issue with penalties potentially exceeding capacity revenues for the year. The possibility that cumulative performance penalties could actually cause a DR resource, or DR customer, to have to pay additional penalties on top of losing all capacity revenues for the year, will create an unreasonable barrier to entry. Currently, customers already face significant risk by participating in DR via the combination of potential loss of all capacity revenue plus the possibility of not recovering incremental costs. The current rules already place customers in a position of potentially being at a loss for the year by virtue of serving as a capacity resource. Adding the possibility that the RPM penalties themselves could cause a customer to be at a loss for the year, on top of the risk of not recovering incremental costs, would not be a prudent decision for most businesses or entities that are not otherwise in the business of producing electricity. Additionally, the penalty risk created for DR in the proposed Capacity Performance product would create significant challenges in aggregating customers, which is necessary to limit performance risk, because of the need to allocate any penalty accrued across an aggregation. The CSP cannot accept all performance risk directly.

- The Capacity Performance proposal effectively mandates that a DR resource seeking to participate as this kind of resource have a summer and winter PLC approximately the same, or that in winter, the registration maintain demand during any peak period (if using GLD). The possibility of a winter PLC meeting or exceeding a summer PLC is not only slight and therefore self-limiting creating an unreasonable barrier to entry, but could also promote unintended consequence via changed customer behavior. The AEMA believes that continued use of the existing PLC is appropriate, or, if PJM feels a winter PLC must be introduced, demand response resources should be able to gain capacity credit for both their full summer and winter values, not merely the lesser of the two. The alternative of
utilizing the GLD methodology as proposed by PJM is an unworkable proposition given the need to be below a PLC to be deemed in compliance.

- The focus on reliability risks during winter suggests that there could be considerable value to winter-only resources. Under PJM’s proposal, it appears that a reliable winter-only resource should be valued at the difference between the Summer Extended or Base and Capacity Performance product. The AEMA recommends that PJM consider allowing for winter-only demand resources to help meet the identified reliability need.

- Several of the new requirements required to qualify for the Capacity Performance product do not appear to address the fuel security and cold weather performance issues that PJM’s proposal seeks to address.
  - No reason has been given for why the existing Annual Demand Response product will have no reliability value during the winter peak week. Most Demand Response does not face the fuel security concerns that appear to be the primary motivator for the new product. Given this, the AEMA believes that the qualification requirement for Demand Response in the Capacity Performance product should remain at 10 hours of curtailment.

- Additionally, DR should have a reasonable ability to use RPM market participation to offset the cost of planning reserves that are not used through curtailment activity.

Finally, though perhaps most significantly, while AEMA strongly opposes the need to introduce a new Capacity Performance product as unnecessary, and has the above stated concerns regarding the definition of the product as it pertains to DR, should PJM proceed with the introduction of this new product regardless, there is the problematic issue with the caps PJM has proposed on the various capacity resources it intends to procure. Time and time again, the successes of RPM have been noted in both the maintenance of reliability and the ability to procure new resources and increasing rates at a time when needed most. Given these successes, and the lack of detailed analysis to substantiate the levels PJM has put forth, AEMA believes shifting the procurement such
that the products currently procured will be marginalized to only 10-15% of the market, is unjust, unreasonable and an unnecessary barrier to entry for resources seeking to serve as Base Capacity resources. As discussed above the result of these unreasonable caps may lead to reliable resources such as DR taking their proven and tested capabilities to be used for other efforts such as peak shaving. At a time where PJM seeks enhanced control and flexibility, it is counterintuitive to take those DR resources which have been reliable, even in voluntary circumstances, and which have recently been amended to provide more operational flexibility, and potentially procure less of them. Particularly given the market power concerns articulated above, the small fraction of the market reserved for Base Capacity is an unjust and unreasonable change to the market. Moreover, when the benefits pursued by PJM can be accomplished via the more narrowly tailored solutions discussed above, the costs of setting caps such as those proposed by PJM, cannot be justified. Again, AEMA suggests that the problems created by establishing a reasonable cap can be completely avoided by not introducing the new Capacity Performance product. The changes discussed herein, or even other creative solutions such as a winter only product, available for both DR and generation, can more surgically accomplish the objectives PJM has established given the issues that surfaced this past winter.

AEMA, via the PJM members referenced above, appreciate this opportunity, and looks forward to ongoing discussion of solutions.