

## **Comments of the Advanced Energy Management Alliance on the PJM Capacity Performance Proposal and LSE Whitepaper**

The Advanced Energy Management Alliance Coalition and supporters (“AEMA”)(some supporters are not AEMA members) appreciate the opportunity to submit comments on PJM’s Capacity Performance Proposal (“the Capacity Performance Proposal”) and the October 6<sup>th</sup> PJM Whitepaper titled “The Evolution of Demand Response in the PJM Wholesale Market” (“the LSE Whitepaper”). AEMA, which represents nearly 10,000 MW’s of demand response and energy efficiency capacity in the PJM market, recognizes the winter reliability issues that PJM seeks to address and the uncertainty caused by FirstEnergy’s Complaint (First Energy Service Company v. PJM Interconnection, L.L.C. Docket No. EL14-55-000, “FirstEnergy Complaint”). Yet despite the goal of the Capacity Performance Proposal and the LSE Whitepaper to enhance winter reliability and provide greater certainty to market participants, the radical number and combination of proposed changes to the PJM capacity market design pose a considerably greater threat to reliability, competitive outcomes and market certainty than the current design. The Capacity Performance Proposal as contemplated would effectively eliminate or seriously degrade capacity market participation of many resources that have performed well: demand response, solar, wind, pumped storage, hydro. The Capacity Performance Proposal essentially ensures that future capacity needs will be met by conventional generation alone. Coal, nuclear and gas are the only capacity resources that meet the standard for year-round, day and night dispatch that the new Capacity Performance model calls for. The recommendations herein will enable PJM to meet its reliability mandate without needlessly disrupting and distorting the capacity market and raising consumer costs by billions of dollars per year. These recommendations are made in good faith to support PJM’s reliability objectives, and do so at just and reasonable market based pricing without jeopardizing the continued existence of the Reliability Pricing Model (“RPM”) as a means to ensure resource adequacy in PJM. AEMA recommendations are summarized as follows:

- Significantly reform the Capacity Performance Proposal in two major ways. First, increase the limit on the amount of Base Capacity demand response (“DR”) permitted and, second, eliminate the application of the proposed Capacity Performance penalty structure to DR resources given the recently implemented DR rule changes to increase the operational flexibility and reliability of the resource. As currently drafted, the Capacity Performance Proposal will eliminate thousands of proven MWs of reliable, cost-effective DR.
- Until directed otherwise by FERC, PJM should not file tariff changes with FERC that incorporate the drastic market overhaul outlined in the LSE Whitepaper. Such a filing would be entirely

premature, and if PJM seeks greater certainty before the 2015 BRA, there is a superior alternative that imposes far less harm on the market and customers.

- If despite the recommendation made above, PJM hastily decides to file tariff changes incorporating the LSE Whitepaper concepts with FERC, PJM must substantively modify the design to facilitate greater demand-side participation.

Greater detail is provided on each recommendation in the following section.

### **I. Necessary Reforms to the PJM Capacity Market Performance Proposal**

PJM's August 1, 2014 Capacity Market Problem Statement identified concerns over the "potentially significant reliability issue" posed by "last winter's generator performance" and the lack of resource diversity in the PJM Market. The problem statement also emphasizes the need to ensure that the long term reliability of the power grid will be maintained at a reasonable cost. PJM can accomplish its objectives with reforms that address the specific issues highlighted by the Polar Vortex. The Proposal should limit the changes to the resources and issues that created the reliability issues this past winter and develop a path forward that addresses the most immediate problems.

In its initial form, the Capacity Performance Proposal is a radical redesign of RPM that will result in a capacity market that is less reliable, less diverse, less competitive, and more expensive. PJM should focus its reform efforts on the generation resources whose lack of performance when called upon created reliability issues, while seeking to maintain the DR that has performed reliably in both mandatory and voluntary dispatches. DR has already been subject to comparable, but not identical, penalties for non-performance as now proposed by PJM for generation, designed specifically around the nature of DR. These performance measurements and penalties have been enhanced over the last two years through regulatory proceedings including the Operational Flexibility proposal approved by FERC earlier this year. These DR-specific requirements are both more applicable and thoughtful, having been designed through the Stakeholder Process and reviewed over a period of several years.

AEMA's response specifically addresses the unnecessary provisions that create barriers for DR participation. Instead of relying on its prior designs for DR participation, PJM has introduced a number of product and market changes in the Capacity Performance Proposal that will significantly reduce the amount of DR megawatts available to PJM during emergency situations. This reduction would result in PJM losing the operational control that was developed and vetted at considerable effort by PJM and its members to increase efficiency and reliability of PJM operations when customers move to PLC management and other strategies in lieu of RPM participation. PJM Customers made tremendous investments to develop and maintain curtailment capabilities in order to participate as capacity resources

under new enhanced operational requirements that have not even been fully implemented yet, with the 30 minute default lead time, expected to significantly enhance reliable operations, not becoming mandatory until the 15/16 Delivery Year. Therefore it is manifestly unjust and unreasonable to move the goal posts yet again to now categorically exclude customers that have proven reliable and made investments to support PJM system reliability.

New limits have been placed on the Base Capacity Product that will leave willing participants without a viable market opportunity. PJM must eliminate what effectively amounts to an anticompetitive cap on DR. A hallmark principle of RPM from its inception is the ability for diverse resources to compete on comparable terms. At a time when PJM seeks to enhance control and flexibility, it is counterintuitive to potentially procure less of those DR resources which have been reliable, even in voluntary circumstances, and which have recently been amended to provide more operational flexibility. Just last year, PJM filed tariff changes with FERC supporting a methodology that would allow 9.3% (2017/18) of capacity needs to be met by Extended Summer DR. But the current proposal reduces that to 8.3% (nearly 1,600MW) and includes energy efficiency under the same cap.

In addition, the existing Limited DR product was eliminated from the Base Capacity Proposal with no explanation or justification. PJM must reconsider this aspect of its proposal. The changes to the Limited DR product come approximately one year after PJM explained to FERC that the system could support in the neighborhood of 6,000 MW of summer limited DR with no detrimental reliability impact. Moreover, eliminating Limited DR would create an unreasonable barrier to entry for the 20% of demand response enabled by behind the meter generation, one of the most proven and reliable subsets of DR.

Finally, PJM's proposal to use an energy baseline to measure winter demand response compliance must be removed. We note that this change comes barely two years after PJM argued to the FERC that a customer's PLC is the proper baseline for capacity demand response. Beyond the arbitrary and capricious nature of PJM's reversal, the proposed measure fails even back-of-the-envelope accuracy tests. For example, under PJM's proposed baseline, an LSE that made a firm commitment to consume no power whatsoever whenever asked by PJM to do so would not be able to offset its capacity bill without risking penalties if the baseline in the winter was less than the summer. PJM's baseline, combined with the extended performance hours proposed for Capacity Performance DR make the product unacceptably risky for all but the highest load factor customers.

## **II. Until Directed by FERC, PJM Should Not File Market Rules that Incorporate the Drastic Market Overhaul Outlined in the LSE Whitepaper**

While AEMA appreciates PJM's commitment to continued DR participation, pursuit of the concepts outlined in the LSE Whitepaper by PJM at FERC now or in the near future would be

entirely premature, create more disruption and uncertainty than has already been created by FirstEnergy's Complaint, and unnecessarily increase consumer costs by billions of dollars. That said, PJM has an opportunity regardless of the outcome of FirstEnergy's Complaint to improve its markets and ensure DR's presence in the wholesale market on a more valuable and stable footing. PJM is not operating under a Court or FERC order to make radical changes under duress that will destroy the incredible gains that have been made to leverage the potential of DR over the years working in cooperation with FERC and state regulators.

To understand why such a filing would be premature, it is critical to briefly examine the status of legal developments. The D.C. Circuit vacated Order No. 745 in *EPSA v. FERC* (the "EPSA Decision"), which dealt solely with DR participation in the energy market, and remanded the case to FERC for further proceedings on how to effect the ruling. However, that mandate has been stayed for all practical purposes until after the U.S. Supreme Court rules on petitions for certiorari which are due December 16. It is likely the mandate will not issue, if at all, until late winter or spring 2015 or later. Again, this case pertains only to energy markets. **PJM is treating the EPSA Decision as if it is binding on the capacity market before it is even binding on Order 745 programs for DR in the energy market.** Quite simply, the EPSA Decision does not directly implicate capacity markets, the EPSA Decision mandate has not issued, and therefore there is no basis to discuss changes to even the energy market at this time, let alone PJM's capacity market.

Not only does PJM, in issuing the LSE Whitepaper, assume that the EPSA Decision will stand, but it also assumes that the FirstEnergy Complaint will be granted, despite appropriately responding to the FirstEnergy Complaint that "[t]he [EPSA] decision does not address capacity markets at all, much less RPM in particular." Given PJM's correct interpretation of the fallacy of the FirstEnergy Complaint, it is baffling that PJM is proposing to guarantee a major loss of DR in the capacity market, a substantial increase in costs for consumers and the potential loss of a reliability resource at the very moment when PJM is working to improve capacity performance. There is no need for an alternative market design if the FERC rejects the FirstEnergy Complaint on jurisdictional grounds, as PJM suggests they should. Therefore, PJM should not file market rules that incorporate the design changes outlined in the LSE Whitepaper unless FERC (a) rules in favor of FirstEnergy and (b) directs PJM to do so.

If PJM insists that greater certainty is required to instill confidence in auction outcomes, the only stable course for PJM would be to request that FERC issue an interim Order in FirstEnergy stating that RPM auction results will not be re-settled after they occur absent fraud or such similar outcomes that would render the results of an auction unjust and unreasonable. PJM is needlessly jumping the gun. No one wants a disruption to the PJM market while FirstEnergy's Complaint is being addressed:

the D.C. Circuit itself issued a stay of its mandate to allow the government to decide and petition the EPSA Decision for review by the Supreme Court. Should the EPSA Decision become final, FERC will adopt an orderly process to implement the decision on remand as it relates to the energy market. Further, FERC will decide the FirstEnergy complaint on its merits and order the implementation of appropriate changes, if any, to capacity markets, again in an orderly fashion. The only way for proper consideration and input between PJM, States and market participants for changes of this magnitude requires proper vetting, analysis and true consideration of all options in a timely manner. It is not a race to the filing line. If however, the Supreme Court hears the appeal and the D.C. Circuit decision is overturned then any changes allowing for demand response participation in both energy and capacity markets would need to be entirely revisited, causing premature actions to have to be undone. As articulated by the NYISO in their response to the FirstEnergy Complaint, an ordered resolution of this current period of uncertainty is well within FERC's discretion<sup>1</sup> and should be promoted by PJM and all market participants that support reliability and just and reasonable competitive market outcomes. Only the rent seekers who seek a multibillion dollar wealth transfer will benefit from premature market disruptions.

Even if FERC is unwilling to provide such a statement, both the EPSA Decision and FirstEnergy decisions will be final in one form or another well in advance of the 2018 delivery year. PJM's ability to currently suggest transition mechanisms for the near-in-time 2015, 2016, and 2017 delivery years clearly indicates that sufficient time will be available to address a delivery year more than three years away, if the need arises. While the prospect of a transition mechanism is unwelcome, the downside associated with the small possibility of a required transition mechanism is far outweighed by the tremendous upside that currently accompanies DR's participation as a supply resource in the capacity market. PJM must weigh this when choosing a path forward.

In spite of PJM's motivation to reduce uncertainty, the design envisioned in the LSE Whitepaper would escalate it, as well as public unrest over the effectiveness of capacity markets. Consider the perspective of customers and curtailment service providers (CSPs) who participate in DR. Not only have they been preparing for significant changes to the capacity market rules set to become fully effective in 15/16 as a result of the Operational Flexibility Order, but now PJM is proposing that the only way they can participate is through an LSE as a demand-side resource. Considering that 77% of current DR comes exclusively from CSPs, this is a fatal flaw that, if implemented, would pave the path for the loss of thousands of MW's of DR value by eliminating economic efficiencies in PJM's

---

<sup>1</sup> "The Commission should also, as a general matter, continue to follow its precedents favoring market certainty and disfavoring requests to retroactively overturn or modify past auction results. It is well-established that the Commission enjoys broad discretion when fashioning remedies, including the discretion to decline to overturn settled market results or require refunds." (Page 6 of NYISO filing in Docket EL14-55).

market and loss of reliable resources to PJM operators. Even if the LSE allowed the customer to participate as a demand-side resource, which is uncertain at best, it would require the customer to enter into an entirely new contract. Then, months later, the EPSA Decision could be overturned or the FirstEnergy Complaint could be rejected, and the customer could be back to participating as a supply-side resource and could choose from multiple CSPs, and would have to re-contract for the second or third time in months. Given that customers' primary source of revenue is not DR, the shakiness and uncertainty of being jerked back and forth, and the contracting confusion and disruption with multiple parties, would undoubtedly cause many customers to lose confidence in markets so important to PJM abandon DR participation in formal PJM programs, driving prices to unsustainable levels and creating unnecessary volatility. Again, this would benefit only the rent seekers, while harming everyone else. PJM will suffer from a confidence deficit amongst the public and policy makers for having acted prematurely, without proper time for needed analysis and input, and for having caused tremendous economic waste. Customers, including those who participate in DR and all others who benefit from DR participation, would be forced to pay the additional billions of dollars to the rent seekers, and the ability of the market to recover from the damage to stabilize prices going forward would be questionable.

To understand why DR is at risk under the PJM LSE Whitepaper, we note that AEMA members have found that the essential element of bringing a 7 to 10 fold increase in demand resources to PJM since the implementation of RPM in 2006 has been the direct payments to providers that offering DR as a resource enables. Historically, and in PJM's Proposal, provision of demand services has rewarded with billing credits usually through utility programs. From an end user perspective there are several reasons why treatment of DR as a service that is compensated as a capacity resource is attractive and why PJM's proposed treatment as a demand resource credited against customers' electricity bill is unattractive.

First, a payment for performance as a DR resource is not a budget line item on a customers' electric bill. Curtailment resources can commit to curtailing and fully understand that they will receive a payment that can offset their costs. The process of deciding to participate therefore does not involve a trade off or evaluation of electric bills to assess the value. When a customer tries to assess the impact of participation as a reduction on the electric bill, the customer must assess other variations in electricity use. It is exceedingly difficult for even sophisticated customers to evaluate the value proposition of DR participation as part of its electricity "spend". Moreover, budgeting processes typically treat electricity use as unchanging – what is spent in one year is the basis for the next year's budget. This approach can further hide the value of participation and require complex explanations

from internal sponsors of DR activity. Payment for the service as a DR resource enhances the fact that the customer's ability to curtail is in fact a fungible product that contributes to reliability rather than merely a means chip away costs on an electric bill. This linkage encourages the successful delivery and performance that RPM has engendered to date. A reversion to an LSE based credit will reverse the trend of increasing end user engagement that PJM has experienced in the last 9 years. While the LSE Whitepaper does not foreclose LSEs from compensating DR participation directly, it eliminates the *quid pro quo* compensation for DR services that has facilitated the growth of DR in PJM. This approach is tantamount to throwing away the key to the historic success of DR in PJM. Before abandoning what has made the PJM market a success, PJM must consult with stakeholders to consider strategies to preserve this most important element of DR participation.

Second, many customers utilize the payments from DR for investments in additional energy savings efforts. These investments benefit both the customer directly and end users indirectly by reducing the need for new resources in the market. A credit from an LSE simply is not viewed by customers in the same way as a payment that a participant receives for the value provided in the form of DR that the participant provides.

Third, under the LSE Whitepaper, PJM asserts the economic benefit consumers derive from committing to DR, the avoidance of purchasing some amount of capacity only, is the appropriate economic benefit for taking the risk of committing to providing demand response. However, this does not properly account for the realities of decisions and choices consumers face, such as customers who choose to participate directly in the market. PJM has itself acknowledged the proposal in the LSE Whitepaper is nearly the equivalent to peak shaving. However customers have that ability today, and will continue to have the ability to peak shave, outside of the PJM program. Whether peak shaving on their own, or by formally committing as a DR resource to PJM, the economic benefit customers will realize is the same – i.e. the avoidance of having to purchase some amount of capacity. However what is not the same is the risk the customer takes – i.e. committing to dispatching as the discretion of PJM and being exposed to penalties is a risk customer would taken on by formally participating as DR that they would not have to be exposed to if they peak shaved on their own. It is simply not rational for consumers – businesses, schools, governmental entities, etc. – to take on more risk to realize the same economic benefit. Accordingly the LSE Whitepaper is inherently flawed in that by eliminating the direct payment to consumers, they create a disincentive for customers to participate. This will harm reliability in that it will reduce the operational resource PJM has come to rely upon.

It is worth recalling that even under the very straightforward ILR program, the predecessor to PJM's current Load Management Program, that facilitated the initial DR participation in RPM, it took five years to approach the level of participation that we see now. Indeed, PJM proposes to utilize a model similar in essential respects to the heretofore untested and un-utilized Price Responsive Demand (PRD) model for all future DR. PJM offers no explanation or justification for its apparent belief that PRD will somehow become a viable model. In two years of PRD availability, no market participant has found a way to make it work. Although many LSEs currently supply DR to the market, it may be problematic for CSPs to transition their DR portfolios to contractual supply obligations with LSEs. The financial incentives and business models of CSPs and LSEs are quite different. Forcing CSPs to contract with LSEs for DR supply will have adverse impacts on the ability of CSPs to maintain current levels of DR participation. As a result, PJM is faced with the burden of demonstrating that a successful and viable DR approach should be discarded in favor of an outmoded method that has shown marginal results at best when used in the past.

### **III. Necessary Modifications to the LSE Whitepaper**

Notwithstanding our firm belief that PJM should not file with FERC the market design envisioned in the LSE Whitepaper, this section provides recommendations to improve the LSE Whitepaper. As currently designed, the LSE Whitepaper is flawed and would result in a significant decrease in DR participation causing PJM to lose the operational control and flexibility over DR it has so thoughtfully needed and cultivated. Customers would be forced to participate in DR through their LSE, and LSE's represent only 23% of current DR participation. Without improvements, the other 77% faces extinction in the PJM program. Many LSEs own generation assets that stand to gain significantly from eliminating DR, one of the primary and most essential tools by which the PJM market needs to discipline prices in the market and ensure competitive and efficient pricing. Most LSEs lack the incentives and capabilities to provide DR, and most customers would be forced to choose between not participating at all or unattractive terms from their LSE. This "arranged marriage" would reverse the increasing trend toward innovation and customer empowerment, and encourage hostility toward wholesale markets.

Moreover, experience suggests that market designs confining capacity market participation to LSEs will fail to incent meaningful participation. For example, despite exposure to prices potentially as high as \$13,500 per megawatt hours, in National Electricity Market ("NEM") in Eastern Australia,



where DR can only be provided by LSEs, DR comprises of only about 1.5% of the peak demand.<sup>2</sup> This is compared to approximately 8.6% in PJM, where there is choice between CSPs and LSEs.

AEMA believes that any PJM FERC filing related to DR is premature at this time. If PJM feels compelled to file proposed rule changes related to DR at this time, AEMA encourages PJM to conduct extensive discussions with stakeholders, including AEMA, to improve upon the LSE Whitepaper. AEMA is actively exploring alternative approaches that would meet PJM's objectives while enabling more DR participation than PJM's proposal would achieve. In the interim, AEMA offers the following recommendations to improve the design contemplated in the LSE Whitepaper:

- Customer portability of DR capability - While the LSE Whitepaper needs to be modified to include concrete provisions to directly include CSPs in the market, one way to make the LSE Whitepaper partially tenable would be to enable an LSE to receive Demand Resource credit for DR from any end-use customer or any CSP contracted with that LSE. In other words, preserve fungibility by not limiting DR capability only to the host LSE.
- State supported DR programs harmonized with wholesale capacity DR credits - Strongly encourage and work with PJM states to order all LSEs that they regulate to contract for all cost-effective DR, including but not limited to, opportunities for DR resources that can qualify for DR capacity credits and allow PJM to preserve operational control over demand resources.
- Comparability does, not equate to identical- As highlighted in the first section above, the penalties associated with PJM's Capacity Performance Proposal should not apply to DR, as these penalties and requirements were designed with generation resources in mind and actually create comparability with the penalties DR currently faces. DR has reliably performed and recently absorbed substantial new operational requirements specifically designed for DR. Imposing generation-specific rules on DR customers in either scenario would drive customers from the market.

Allowing portability of customers DR resource capability to any LSEs that can derive value from the DR resource will encourage innovation and customer choice. Addressing this critical element is the single most important change that will be fundamental to any success of the LSE Whitepaper concept. There is no compelling legal or practical reason why customers should be denied the opportunity to participate in DR through a different LSE than the one that serves their load. Forward-thinking LSEs could offset a significant portion of their load procurement obligation with DR, benefiting all PJM customers.

---

<sup>2</sup> See 2014 Australian Energy Market Operator's National Electricity Forecasting Report. (AEMO's NEFR), the Information Methodology Paper containing "2014 NEFR Demand-side Participation" dated June 30, 2014 *available at*: <http://www.aemo.com.au/Electricity/Planning/Forecasting/National-Electricity-Forecasting-Report/NEFRSupplementary-Information>.

PJM should work in collaboration with the PJM States to emphasize the need for robust demand-side participation, and encourage PJM states to order all LSEs that they regulate to contract for all cost-effective DR. States would give weight to such encouragement by PJM, and if implemented, this would meaningfully preserve the immense benefits delivered by DR to PJM customers.

Finally, as it stands, the Capacity Performance Proposal would reduce DR participation whether on the supply side or demand side, and should apply to neither construct. Combining it with the LSE Whitepaper is especially dangerous given the vast uncertainty that already accompanies that design.

#### IV. Conclusion

While there are very serious problems with the approach taken in the LSE Whitepaper, AEMA does not find fault in PJM's attempt to secure a more stable future for DR in the PJM market and PJM region. If done correctly in a well thought out manner, in cooperation with the states, customers, and the DR industry, a new direction could actually create opportunities to enhance the value of DR while preserving the reliability and efficiency benefits from DR that PJM and its customers currently enjoy. If changes are made out of a fear of the unknown, under duress, and under a cloud of legal uncertainty, the effort and the outcome will be a disaster. AEMA stands ready to responsibly engage with PJM, other market participants and the States to consider and improve upon ideas such as the concept advanced in the LSE Whitepaper. A new and improved direction for DR may be a better outcome for all concerned regardless of the outcome of the EPSA or the FirstEnergy cases. We believe that PJM should engage in these decisions for the right reasons because it will result in a better and more stable future for DR. We also totally share PJM's desire to engage state regulators and customers in this endeavor. What we do not support, and is not in the public interest, is to consider radical changes for DR under duress as a rushed and premature reaction to the FirstEnergy complaint or to impose contemplated changes in the Capacity Performance Proposal on DR that has been a reliable resource to PJM and has just undergone a prior set of substantial changes to enhance reliability and operational control that have yet to be fully implemented. Trying to do so would result in major disruption and irreparable harm to customers and the PJM market, would be unjust and unreasonable, and would compromise the long term viability of RPM as a means to ensure resource adequacy in PJM.

#### Supporters - Members

Clear Choice Energy  
Enernoc  
Enerwise/Comverge  
EnergyConnect  
MidAtlantic Power Partners

Texas Retail Energy  
Supporters – Non-members  
Opower  
AEMA