Comments of EMC² Development Company  
on PJM’s Capacity Performance Proposal

EMC² appreciates the opportunity to comment on PJM’s draft Capacity Performance Proposal. In these brief comments we address particular details of the proposed treatment of Energy Efficiency capacity resources.

Regarding Winter UCAP value of Energy Efficiency Resources

PJM has proposed that Energy Efficiency (“EE”) Resources in the annual RPM products earn capacity credits at the lesser of their current summer-based value and a winter savings value based on reduction in demand during to-be-defined winter performance hours, and excluding “interactive factors”¹ that only apply during summer months. EMC² agrees that M&V rules should be extended to accurately measure winter savings, and agrees in principal with PJM’s proposal.

However, EMC² suggests that valuing EE measures at the minimum of their summer and winter reductions undervalues these resources. Instead, we propose that EE measures that have a higher summer value than winter value be credited for their winter value as Base or Capacity Performance, with any excess summer reductions credited as Summer Extended.

We also believe that some EE measures will have more value in the winter than in the summer. In the context of PJM’s Capacity Performance proposal, such resources would appear extremely valuable. We suggest that the final proposal include some mechanism for resources with higher winter reductions to receive proper capacity values. This could be done in a number of ways: winter-only resources could be directly recognized and compensated at the price difference between Summer Extended and Capacity Performance resources (or Base resources, if the resource does not meet all Capacity Performance criteria). The RPM clearing process could conceivably pair winter-only and Summer Extended resources to create Capacity Performance resources, or market participants could be allowed to do so themselves.

¹ Interactive factors are additional efficiency gains realized because more efficient systems produce less heat, reducing cooling load.
Regardless of the specific mechanism, we believe that there are large amounts of winter energy efficiency that has up to now been invisible to RPM. With the new emphasis on winter reliability, we suggest that RPM would be improved by recognizing the value of these resources.

**Regarding the Forecast Pool Requirement Multiplier**

PJM proposes to eliminate the use of the FPR multiplier in determining the UCAP value of EE resources. As PJM notes, the FPR multiplier originated with legacy demand management programs that were treated as reductions in the peak load forecast. PJM goes on to state that Demand Response in RPM is now modeled as a supply resource, and so this multiplier should no longer apply. EMC\(^2\) takes no position on if this is appropriate for demand response, but we suggest that it remains correct to include the FPR multiplier in energy efficiency’s UCAP value.

Energy efficiency resources actually do represent reductions in the peak load forecast. The EE product in RPM is explicitly designed to account for reductions in peak load in the interim period before those reductions are captured in load forecasts—that is why EE measures are only counted as supply resources for four years. Because of this, EE measures do reduce the need for reserves. 100MW of premise-level EE does indeed reduce the reliability requirement by “100MW times FPR.” This is properly modeled by multiplying the ICAP of an EE resource by the FPR to determine UCAP.

As a thought experiment to verify this, consider what happens to an EE measure in the fifth year after it is installed, when it switches from being a supply resource to a reduction in peak load. At that point, the 100MW of premise-level EE would reduce peak load by 100MW, and the reliability requirement would be reduced by 100MW times FPR. It is only consistent to give an EE measure the same capacity value whether it is being treated as supply or load reduction.

In the Capacity Performance proposal, PJM notes that “The purpose of Reserve Margin Gross-Up has been to reflect the reserve that would not be needed if system peak load can be reduced with a perfectly available resource” (page 21, note 3). Compare this with the definition of an EE resource as “a permanent, continuous reduction in electric energy consumption... that is not reflected in the peak load forecast...[and] must be fully
implemented at all times during the Delivery Year, without any requirement of notice, dispatch, or operator intervention.” Energy Efficiency matches, almost by definition, the conditions PJM states justify the Reserve Margin Gross-Up.

**Regarding Penalty Offsets**

In the proposal, “a Capacity Market Seller may offset the penalties applied to its Capacity Resources via energy production from uncommitted units” (page 28). Since Energy Efficiency does not participate in the energy market, it is somewhat ambiguous how this would apply. We suggest that it be made explicit this rule applies equally to energy efficiency resources: an uncommitted EE resource or portion of an EE resource should generate “penalty offsets” at the appropriate Zonal LMP. These penalty offsets would function just as the penalty offsets from energy produced by uncommitted generators described on page 28 of the proposal.

**Regarding M&V Standards and Transition Auctions**

There will be a relatively short time between when PJM’s board acts on the Capacity Performance proposal and the 3rd Incremental Auction or any transitional auctions for the 2015/16 delivery year. On this topic, we merely draw PJM’s attention to this timing, and request that PJM ensure that M&V procedures are developed with sufficient time for market participants to submit M&V plans and qualify existing EE resources as Capacity Performance to participate in these auctions.

**Regarding Administration of RPM Energy Efficiency Resources**

As PJM staff is well aware, the current modeling of energy efficiency resources in eRPM creates large numbers of very small resources. Because the Capacity Performance proposal splits energy efficiency yet further into three different product tiers, it could triple the number of eRPM resources needed to model each provider’s portfolio. Managing the hundreds of eRPM resources owned by a typical provider is already administratively tedious. Having three times as many resources will make the problem that much worse, and may get to the point where the errors introduced by eRPM rounding values to 100kW become significant, even for multi-megawatt portfolios.
Although this issue is only indirectly related to the Capacity Performance proposal, EMC² would welcome and support any effort by PJM and other interested stakeholders to streamline EE administration.

EMC² thanks PJM for this opportunity to comment on the Capacity Performance proposal. We welcome any questions or further discussion regarding possible treatment of energy efficiency in RPM.

Respectfully Submitted,

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