



## I. COMMENTS

### A. The RRMSE Is Necessary for Accurate Measurement and Verification.

Because Demand Resources (demand side capacity resources) must perform in the winter under the Capacity Performance modifications to the capacity market, an appropriate method for measurement and verification is needed to accurately measure reductions in energy use in the winter. Prior to the adoption of the Capacity Performance capacity market rules, Demand Resources were not required to perform in the winter.

For Demand Resources during the months of June through September of the Delivery Year, PJM currently uses the Firm Service Level or the Guaranteed Load Drop methods to measure capacity compliance.<sup>4</sup> For Demand Resources during the months of October through May of the Delivery Year, PJM currently uses the economic CBL to measure capacity compliance.

For Demand Resources during the Delivery Year, PJM currently uses the hour before as the CBL for energy reductions. For Demand Resources that also participate as Economic Resources during the Delivery Year, PJM currently uses the economic CBL for energy reductions. That CBL requires the use of the RRMSE test.<sup>5 6</sup>

PJM's proposal would change the hour before method, to the default three-day type with Symmetric Additive Adjustment CBL for energy reductions. But this CBL would not require the use of the RRMSE test. PJM states (at 3), "[t]he economic CBL measure allows for a more accurate calculation of compensable load reduction than the hour-before CBL measure, and thus is used when available." The CBL approach allows for the desired

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<sup>4</sup> OA Schedule 1 § 8.9.

<sup>5</sup> *Id.*

<sup>6</sup> Economic Resources refer to the economic load response program.

improvement in accuracy to apply when the RRMSE test is used.<sup>7</sup> The August 22<sup>nd</sup> Filing should be corrected to require use of the RRMSE test.

Table 1 shows what demand response configurations require the RRMSE test. The RRMSE test is required to verify that the CBL fit the actual load over 60 days of hourly load data. The CBL must result in a RRMSE of twenty percent or less compared to actual hourly loads over the 60 days of hourly load data to be considered Non-Variable Load for Economic Resources, which participate in the energy markets.<sup>8</sup> Table 1 makes clear that PJM’s proposal would create a discriminatory exception from the application of the RRMSE.

**Table 1 Demand response configurations that require the RRMSE test.**

Time Period Applicable	Demand Resource	Economic Resource	Capacity		Requires RRMSE test
			Compliance Metric	Energy Reduction Metric	
June through September	Yes	No	FSL/GLD	PJM Proposed Economic CBL	No
	Yes	Yes	FSL/GLD	Economic CBL	Yes
	No	Yes	N/A	Economic CBL	Yes
October through May	Yes	No	Economic CBL	PJM Proposed Economic CBL	No
	Yes	Yes	Economic CBL	Economic CBL	Yes
	No	Yes	N/A	Economic CBL	Yes

The RRMSE test was previously not required for Demand Resources because Demand Resources did not use CBL. Because PJM now proposes to require CBL to measure energy reductions by Demand Resources, Demand Resources should also be required to use the RRMSE to ensure accuracy for Demand Resources that is comparable to that for Economic Resources.

**B. Removal of the RRMSE Test Reduces Participation in the Economic Program.**

Economic Resources must conduct the RRMSE test to select the appropriate CBL. Under PJM’s proposal, Demand Resources would not need to conduct the RRMSE test to select the appropriate CBL for energy savings that are logically indistinguishable from the

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<sup>7</sup> OA Schedule 1 § 1.5A.6.

<sup>8</sup> *Id.*

energy savings by Economic Resources. Demand Resources are thus less likely to register as Economic Resources in order to avoid the additional cost of conducting the RRMSE test. Reducing participation in the economic program is not a desired outcome for a strong and robust demand side of the market. If Demand Resources are not treated the same as Economic Resources, the incentives favor less robust participation in the Economic Program. Demand Resources must have the same requirements as Economic Resources for selecting an appropriate CBL; therefore both Economic Resources and Demand Resources must conduct the RRMSE test.

**C. Current Capacity Market Conditions and Rules Increase the Need for the RRMSE Test.**

Given the significance of Demand Resources in the capacity market and given that the definition of Demand Resources in the Capacity Market was just changed significantly by PJM, PJM's proposal to apply weaker measurement and verification to Demand Resources under the Capacity Performance design is inconsistent with PJM's implementation of much stronger performance incentives for generation resources. Instead of weakening the measurement and verification of Demand Resources, PJM should propose strengthened measurement and verification requirements for all Demand Resources serving as PJM capacity resources. One such rule would apply to Demand Resources exactly the same measurement and verification method now applied to Economic Resources, including CBL and the RRMSE test. The need for accurate measurement and verification is increased relative to other resources because Demand Resources are paid based on predetermined strike prices regardless of LMP. The self selected strike price for 94.7 percent of Demand Resources is greater than or equal to \$1,000 per MWh.<sup>9</sup>

In addition, system and market conditions have changed in ways that make the performance measured by the CBL, which requires the RRMSE test, more relevant. Even

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<sup>9</sup> 2016 State of the Market Report for PJM: January through June, Section 6: Demand Response at 263.

before the implementation of the annual product definition under the Capacity Performance model, PJM began dispatching Demand Resources during non-summer periods on a voluntary basis. In January 2014, there were seven demand response events.<sup>10</sup> A customer's demand curve during the early hours of a cold winter morning will likely be much different than the customer's demand curve during the late afternoon of a hot summer day. The RRMSE test will ensure the Demand Resource has an appropriate CBL.

**D. The RRMSE Is Not an Administrative Burden.**

In previous filings, the Commission accepted PJM's claim that requiring CSPs to calculate RRMSE is an administrative burden because there were close to 12,000 MW when first proposed during the 2015/2016 Delivery Year.

It is not correct to excuse calculation of the RRMSE test at any level of registrations. More Demand Resource participation increases the need for accurate measurement and verification because the harm to the market from faulty measurements is greater. Accuracy of resources is important regardless of the amount of Demand Resources registered. There is no reason to exempt this CBL calculation from the use of RRMSE given the fact that the RRMSE test is applied to all other uses of the CBL in the PJM tariff (Table 1).

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<sup>10</sup> See PJM, "Summary of PJM-Initiated Load Management Events," which can be accessed at: <http://www.pjm.com/~media/planning/res-adeq/load-forecast/alm-history.ashx>.

## II. CONCLUSION

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

Respectfully submitted,



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Dated: September 12, 2016

**CERTIFICATE OF SERVICE**

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

Dated at Eagleville, Pennsylvania,  
this 12<sup>th</sup> day of September, 2016.



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