



EE Model Improvements for PJM

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Disclaimer

This presentation is a good faith effort to facilitate a path forward for a workable future PJM EE model. This presentation is not intended to be used in any pending FERC litigation. No proposals or commentary herein should be interpreted that CPower is asserting that the current PJM EE model is or is not just and reasonable.

EE in RPM contemplated from the beginning

ER05-1410-001, December 22, 2006, FERC's Original RPM Order

133. In section II.P of the Settlement, PJM committed to (a) establish an additional process within the PJM region for pursuing and supporting demand response and incorporating energy efficiency applications, and (b) establishing a forum for discussions dedicated to increasing coordination among PJM, state siting authorities, regulatory commissions, and PJM stakeholders to identify, evaluate and rectify barriers to entry of demand response. Within nine months of the issuance of this order, we direct PJM to report to the Commission on the status of the additional process on demand response and energy efficiency, and the results and conclusions from the forum for rectifying barriers to entry of demand response.

EE should be able to compete on an equal footing

ER05-1410-002, June 25, 2007, RPM Rehearing Order

202. But we agree with the New Jersey Commission that RPM does not treat investment in energy efficiency as a type of capacity resource eligible to participate in the capacity market and, that to the extent possible, energy efficiency solutions should be able to compete on an equal footing with demand response, generation, and transmission solutions.¹⁵⁷ The New Jersey Commission however, has not put forward a sufficiently detailed description of how energy efficiency can be included in RPM immediately.

203. We find that the better solution is to require PJM and its stakeholders to examine energy efficient applications, as discussed below, as part of its ongoing forum to determine how such applications can best be incorporated into RPM. PJM and its stakeholders should consider, as part of the forum discussed below, whether a similar means of incorporating energy efficient applications into the capacity market to that recently proposed by ISO New England (ISO-NE)¹⁵⁸ could be applicable to PJM.

¹⁵⁷ While energy efficiency solutions may be able to participate as demand response resources, it is not clear that they can do so on equal terms with other forms of demand response.

FERC has consistently supported robust EE Participation in RPM.

130. As the Commission indicated in our June 25, 2007, Order, currently, PJM does not treat investment in energy efficiency as a type of capacity resource eligible to participate in the capacity market. The Commission further found that “to the extent possible, energy efficiency solutions should be able to compete on an equal footing with demand response, generation, and transmission solutions.” We commend PJM for developing a proposal to incorporate energy efficiency into its capacity markets. We believe that energy efficiency is a critical part of efficient energy markets, and should be treated comparably to other types of resources, by being allowed to participate in base residual auctions and be paid the auction clearing price when they are accepted in the auction.

Order in ER09-412, 126 FERC ¶ 61,275, March 26, 2009 at P130.

EE Forecast & Addback Mechanism

- 2015 changes adopted without a tariff change or FERC review created numerous problems.
- EE forecast methodology is opaque, unverifiable, and incapable of being tested for its accuracy.
- Whole-of-economy, top-down approach to EE forecast is woefully inadequate, and results in overgeneralized subjective EE assumptions. This approach undermines state and local policies to promote EE and customers' efforts to reduce capacity costs from EE investments.
- EE forecast, including both general efficiency trends and PJM EE resources are completely divorced from energy or capacity pricing, yet we are relying upon it to influence market outcomes. Same amount of EE (whatever it is) is subtracted from load forecast regardless of whether prices are high or low.
- Supply side EE impacts price formation and system reliability as part of the VRR curve.
- Addback mechanism, adopted almost as an afterthought, is a static adjustment that removes supply side EE from the load forecast in order to prevent "double counting."
- Cannot reform EE addback mechanism without also considering reform to EE forecast methodology.
- EE is not being treated comparably to other resources – e.g. post-2015 changes, EE not permitted to replace other types of capacity resources.

Proposal 1 – EE forecast and addback mechanism

- Proposal 1 – Initiate a problem statement/issue charge with a singular focus on resolving the identified concerns with the EE forecast model and addback mechanism.
- Not proposing a specific change at this time to EE forecast and addback mechanism.
- Stakeholder process would focus on getting EE forecast and addback mechanism (if applicable) right so that it is accurate and free from bias, fairly treats EE resources, and is not distracted by unrelated M&V or other issues that have bogged down stakeholder process.
- If there is a change to the addback mechanism that is appropriate related to Annual/Summer EE, it should be considered in the context of efforts to move to seasonal capacity market.

Proposal 2 & 3 - Capacity Rights and Ownership Tracking

- Proposal 2 - Add tariff/manual language that PJM will require documentation that customer has agreed through contract or other agreement:
 - 1) to transfer exclusive EE capacity rights that customer owns to EE provider, or
 - 2) that EE provider will retain exclusive EE capacity rights as a result of implementation of EE measure.
- Proposal 3 - Require PJM to adopt an EE registration tracking system similar or identical to DR to ensure that only 1 entity can claim EE capacity rights.
- Require location identification.*
- Any duplicate claims of EE capacity rights addressed in the same way as duplicate DR registrations to determine ownership.

* - By customer or at least to the EDC zone. Depending upon retail arrangements and EE application (e.g. mass market programs), it may be sufficient not to require all locations to be identified.

Proposal 4 & 5 - Measurement and Verification

- Proposal 4 - Initial and Updated M&V Plans submissions separate from Nominated Values prior to an auction. M&V Plans may be submitted to PJM at any time; new M&V models must be submitted at least 3 months prior to Nominated Value submission (4 months prior to the relevant auction) to allow for consideration.
- Proposal 5 - Add rigor to M&V Plan review and approval process. Institute formal iterative review and approval process of M&V methodologies that conforms to international, national and state EE M&V evaluation protocols.
 - Consider expert third party evaluator similar to what many states use to approve M&V Plans.
 - Approval based upon applicable industry standard best practices and relevant standards. No requirement for state TRMs approval or geographical or time limitations.
- This approach fosters innovation in energy efficiency approaches.
- PJM approval establishes approved methodology that EE provider can rely upon.
- Post Installation M&V Report approval process confirms the EE provider has calculated volumes in accordance with following the approved M&V plan.

Proposal 6 & 7 – M&V Rules and Documentation

- Proposal 6 – Following a review by DIRS and further stakeholder input, material and substantive M&V requirements found throughout various templates, training materials, and various guidance communications to be placed in tariff or manual, as appropriate.
- Proposal 7 – Non-proprietary standard M&V methodologies and procedures should be made publicly available as “models” for all market participants to achieve more standardization (perhaps not necessary to place these items in a manual).

Summary of Proposals

1. Institute stakeholder process to evaluate EE forecast methodology and addback mechanism.
2. Document agreement with customer regarding capacity rights ownership.
3. EE registrations tracking system.
4. Bifurcate M&V Plan approval from Nominated Value determination with more time for evaluation of M&V plans.
5. Make M&V Plan approval a more detailed iterative process.
6. Move substantive requirements into tariff and manuals.
7. Standardize M&V for common, non-proprietary EE approaches, and publish them.



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