

Balancing Operating Reserve (BOR) Credit Reform: PJM / IMM Proposal Overview

Lisa Morelli

Sr. Director, Market Settlements

Market Implementation Committee

April 2, 2025

www.pjm.com | Public PJM © 2025



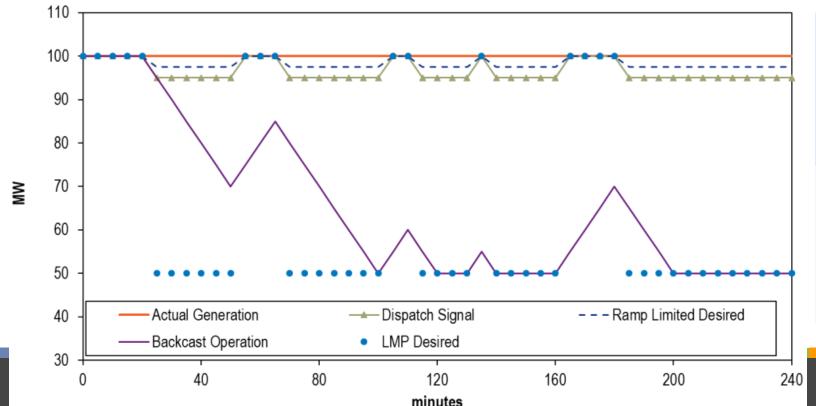
- Clarify the rules around the payment of Balancing Operating Reserve (BOR) Credits to resources that do not operate as expected and strengthen incentives for resources to operate consistent with PJM's directions.
 - There is a need to address IMM and FERC concerns with the payment of significant BOR credits to resources that do not follow PJM dispatch instructions.



Root Causes of Elevated Uplift Paid to Units Not Following Dispatch

The existing metrics used to determine if a resource is following dispatch only measure how well a unit follows dispatch in a single interval. They cannot measure how well a unit follows dispatch across multiple intervals.

 As a result, a resource can fail to follow consistently over multiple intervals but still be flagged as following dispatch and therefore receive significant uplift payments for MW not otherwise desired and receive minimal to no deviation charges.



Compared to the dispatch signal or Ramp Limited Desired, actual generation is close to the desired MW and the unit looks like it is following dispatch

Backcast analysis that assumes the resource followed instructions from the beginning shows the resource did not operate where PJM would have wanted the unit.



Other Issues Associated With Units Not Operating as Requested by PJM

- The tariff lacks specificity around what it means to be "Operating as Requested by PJM" and therefore eligible to receive BOR credits.
- The consequences are unclear for the following scenarios:
 - Coming on late or early for a PJM commitment
 - Going offline early or too late
 - Taking a unit over as self-scheduled in the middle of a PJM commitment

www.pim.com | Public PJM © 2025



Main Elements of the Proposed Solution

1	Use of a new Tracking Ramp Limited Desired MW metric to measure how well a unit follows dispatch across consecutive intervals. - This new metric replaces the use of the existing Desired MW metrics (dispatch signal, ramplimited desired MW and LMP Desired MW) in the calculation of Balancing Operating Reserve Credits and deviation charges
2	Structural changes to the Balancing Operating Reserve Credit calculation – Simplifies the calculation and increases transparency
3	Adjustments to the periods for which resources will be eligible to receive Balancing Operating Reserve Credits
4	Conforming changes to the calculation of generator deviations

This proposal is jointly supported by PJM and the IMM.



Other Elements of the Proposed Solution

- Conforming changes to generation deviations
 - Replace existing desired MW metrics with Tracking Ramp Limited Desired MW metric
 - Eliminate some automatic exemptions since Tracking Ramp Limited Desired MW will account for any deviation needed to provide another service, unlike the existing desired metrics
 - MW and percentage-based exemption thresholds remain unchanged
- Conforming updates to Reactive Services Make Whole Credits

www.pjm.com | Public PJM © 2025



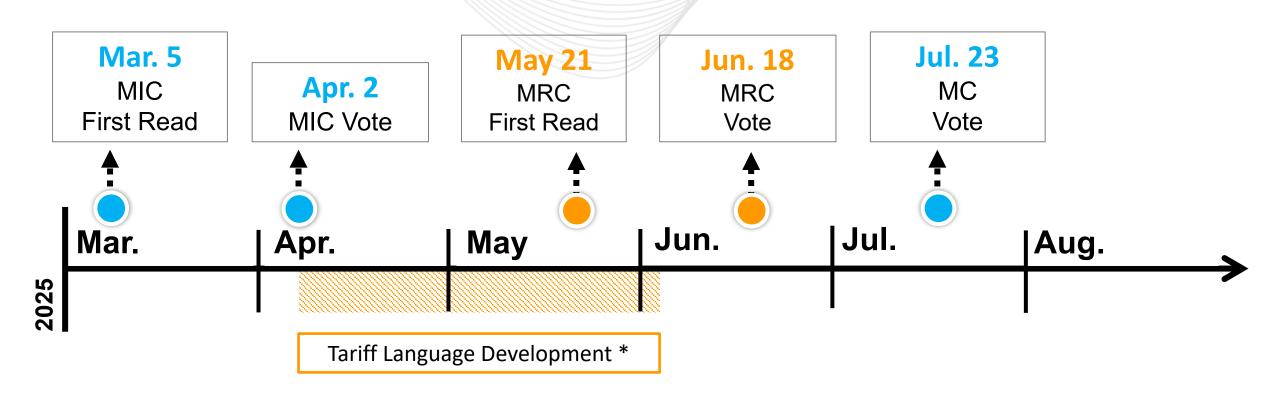
Other Elements of the Proposed Solution

- Clarify how the following actions impact the determination of following dispatch and BOR credits
 - Offering limited flexibility (using the Fixed Gen Flag or clamping min/max limits)
 - Violating parameter limits
- Address the determination of following dispatch during a Market Suspension

www.pjm.com | Public 7 PJM © 2025



Review/Endorsement Timeline



^{*} Proposed tariff language may be posted following the MRC first read if additional time is needed for drafting



A phased implementation approach is proposed to provide experience with the TRLD metric prior to its use in calculating balancing operating reserve credits and charges.

- TRLD soft launch at end of 2025 / early 2026 TRLD will be calculated and published via MSRS reports, but not yet used in settlements
 - Allows time for participant training / learning and for participants to make adjustments to bid in parameters, if needed.
 - Also allows time for the TRLD calculation to be adjusted if review reveals edge cases with unintended outcomes.
- Implementation of the entire package of changes, including usage of TRLD in settlements, at the end of 2026 /early 2027



Facilitator:

Foluso Afelumo

Foluso.Afelumo@pjm.com

Secretary:

Stefan Starkov

Stefan.Starkov@pjm.com

Presenter:

Lisa Morelli

<u>Lisa.Morelli@pjm.com</u>

BOR Credit Reform Proposal Overview



Member Hotline

(610) 666 - 8980

(866) 400 - 8980

custsvc@pjm.com



Appendix

www.pjm.com | Public PJM © 2025

Other Materials Explaining the Proposal

MIC first read materials:

January 2025 First Read Proposal Overview

March 2025 Second Read IMM Presentation

IMM Appendix Examples

Detailed Proposal Information:

- CBIR Matrix
- December 2024 MIC Special Session Detailed Proposal Overview
- Consolidated BOR Credit Proposal Examples

