

Loss of Load Expectation Continuing Error Updated FAQ¹ – September 10, 2025

MISO recently discovered a third-party software coding error that impacts Loss of Load Expectation calculations used to set the planning reserve margins in its Planning Resource Auction. The software was calculating Loss of Load Expectation (LOLE) using an "all hours" methodology instead of the required and Tariff-defined "daily peak hour" methodology. The impact of the error is limited to the 2025/26 planning year.

Questions & Answers

What specifically was the error?

MISO discovered that the third-party software used to calculate LOLE was not functioning as represented and did not comply with the Tariff definition. The Tariff requires LOLE to be calculated based on the daily peak hour, but the software instead applied an all-hours methodology. The vendor has confirmed the software has never been capable of performing the Tariff-defined daily peak hour calculation since MISO began using it in 2017 for the 2018/19 planning year, despite documentation to the contrary.

When and how did MISO discover the issue?

MISO identified the error in June 2025 during a comparative analysis ahead of a planned Tariff update to adopt the all-hours methodology. Once confirmed, MISO immediately launched an internal investigation to determine the full scope of the error and its implications and notified the Federal Energy Regulatory Commission (FERC), the Independent Market Monitor (IMM), and our Board of Directors. MISO also filed a self-report with the FERC Office of Enforcement.

Who is impacted?

The impact is limited to participants that were long or short on megawatts in the 2025/26 Planning Resource Auction (PRA). About 90% of Load Serving Entities (LSEs) self-supply or secure capacity prior to the auction, meaning most entities have little or no exposure to the Auction Clearing Price. MISO will apply adjustments based on the net PRA position of each Asset Owner by season. MISO will make adjustments based on the entity's position at the time of the 2025/26 PRA.²

What is the financial magnitude of this issue?

The total financial impact is about \$280 million for the 2025/26 planning year based on the net position of market participants.

Is MISO planning to rerun or resettle the 2025/26 PRA?

The 2025/26 PRA results stand. MISO is not rerunning or resettling the 2025/26 PRA, nor will it take new bids or establish a new auction clearing price. Consistent with the Tariff, MISO will instead apply an "appropriate adjustment" using corrected LOLE values for the 2025/26 planning year.

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 $^{^{1}}$ ★ New question since original posting on September 3, 2025

² Any transaction or switching of load/resource assignment post-PRA will not be reflected in the adjustments.

FAQs

Why is MISO only making an "appropriate adjustment" for the 2025/26 auction?

The Tariff defines this type of issue as a "Continuing Error" and prescribes adjustments only for the one-year preceding notification. MISO is therefore applying corrections only to the 2025/26 PRA.

A Continuing Error is defined as "a continuing software, system or other execution that is inconsistent with the Tariff." The remedy outlined in Module A, Section 12A.e requires MISO to notify stakeholders about the Continuing Error and evaluate any "appropriate adjustments" that may be required up to one year backward from that notification date.

★ Does this Continuing Error impact prices (e.g., Locational Marginal Prices) in the Day-ahead or Real-time Energy Markets?

The 2025/26 PRA results remain unchanged, and all obligations including must-offer requirements for resources stand as-is. The LOLE Continuing Error has no impact on the clearing process and total resources that clear in the Day-Ahead and Real-Time Energy Markets. In both Day-Ahead and Real-Time Energy Markets, resources are cleared to meet the demand/load that is participating in the respective markets based on the Market Participant-submitted resource offers. MISO cannot quantify the impact of the LOLE Continuing Error on potential changes in Market Participants' offer behavior.

\bigstar Can MISO disclose the calculation methodology being considered to correct the error?

Yes, MISO provided details during the <u>Settlements User Group meeting</u> on September 3.

★Is MISO expecting to issue any make-whole payments as part of this process?

Yes, MISO will issue make-whole payments to those resources that cleared the PRA for the 2025/26 planning year but would not have cleared had the LOLE been calculated consistent with the Tariff definition. These make-whole payments are just and reasonable because sales obligations, including must-offer requirements, will not be adjusted as part of this process. Consequently, MISO is issuing make-whole payments to these resources based on their offer price, ensuring they recover, at a minimum, their offer cost, thereby being made whole at their offer cost.

★What is the total amount of make-whole payments for each season, and how is MISO planning to charge customers to recover the total amount of make-whole payments?

The make-whole payments for each season for the 2025/26planning year are summarized in the table below. Market Participants can find more granular information in the spreadsheet template that MISO has posted as the supplemental materials for the September 3, Settlements User Group meeting (referenced below).

	Summer	Fall	Winter	Spring
Total estimated make-whole payment (\$)	\$2.03 M	\$619 K	\$499 K	\$744K

These make-whole payments are recovered from all LSEs based on their final PRMR obligation from the 2025/26 PRA on a pro-rata basis.



★Will MISO be making any Zonal Deliverability Benefit (ZBD) Adjustments?

Yes, MISO will calculate Zonal Deliverability Benefit adjustments based on the simulated price differential due to the LOLE Continuing Error. The ZDB adjustments will only be applicable for the summer and fall seasons. MISO is using the ZDB rate adjustments below:

Summer season ZBD: (\$2.91)/MW

Fall season ZBD: \$0.32/MW

★How will this process impact resources subject to a Capacity Replacement Non-Compliance Charge (CRNCC)?

There will be no change to the CRNCC or the application of CRNCC as per the provisions in Module E-1 of the MISO Tariff due to the "appropriate adjustments" that are being calculated and applied as a remedy for the LOLE Continuing Error. MISO will apply CNRCC to Market Participants as per the provisions in its Tariff.

When will MISO make the "appropriate adjustment" and have this corrected?

MISO will make "appropriate adjustments" to applicable settlement statements to more accurately reflect the correct LOLE and PRMR for the 2025/26 PRA.

- MISO will issue the "appropriate adjustments" via the miscellaneous charge type (RT_MISC) on the S105 statement at the end of each season.
 - For the summer season, adjustments will be equally spread across September, October and November
 - For fall, winter and spring, one adjustment will be made after the conclusion of each season
- MISO will post a public notification prior to issuing each statement containing the "appropriate adjustments."
- There will be a description included in the RT_MISCs for each impacted Asset Owner denoting that this is for the resolution of the LOLE Continuing Error for accounting purposes.

2025/26 Season	S105 Statement Posting Date	Operating Dates Being Settled (S105)	Invoice Date
Summer	9/18/2025	6/5/2025	9/23/2025
	10/16/2025	7/3/2025	10/21/2025
	11/19/2025	8/6/2025	11/25/2025
Fall	12/18/2025	9/4/2025	12/23/2025
Winter	3/18/2026	12/3/2025	3/24/2026
Spring	6/18/2026	3/5/2025	6/23/2026

How is MISO notifying and communicating with auction participants?

MISO's External Affairs and Client Services & Readiness (CSR) teams are working with Market Participants to inform them of their settlement impacts.



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Will MISO provide actual changes to settlement amounts by season before posting the statement? Yes, MISO Client Services & Readiness (CSR) can provide that information.

★ How can Market Participants shadow or otherwise replicate MISO's calculations for the "appropriate adjustments?"

To provide transparency for the adjustment approach, MISO is providing a spreadsheet template Market Participants can use to calculate their own adjustment amounts and validate settlement statements. The spreadsheet template is posted as supplemental materials for the September 3, 2025, <u>Settlements User Group (SUG) meeting.</u>

For states with retail market participation/competition, will MISO provide guidance on a mechanism to charge or credit current and future customers?

MISO will determine settlement adjustments for all entities that cleared in the 2025/26 PRA, including those that are in states with retail choice for customers. Adjustments will not reflect any transaction or switching of load/resource assignment post-PRA.

★How will the settlement adjustment process work for customers in retail choice states?

MISO has a representative Asset Owner for those entities that registered their assets with MISO, and those corresponding Asset Owners and Market Participants will be issued settlement adjustments based on their net positions that cleared in the 2025/26 PRA.

★ How will the "appropriate adjustments" affect Market Participants' credit posting requirements? Once the adjustment is billed, it will be included in the Total Potential Exposure calculation. If the adjustment results in the Total Potential Exposure exceeding the existing credit limit, it will trigger a margin call, which will be due in two business days.

What controls did MISO have in place to ensure LOLE was calculated correctly?

MISO reasonably relied on vendor documentation indicating the software performed as represented and would therefore comply with the Tariff definition of LOLE. However, there was no post-implementation verification of whether the calculation logic matched the Tariff definition. This gap has been identified, and MISO will strengthen governance and verification procedures to prevent similar issues in the future.

What is MISO doing about the vendor?

MISO is working collaboratively with the software vendor to address Tariff compliance, while also exercising its contractual rights to ensure an appropriate resolution.

What happens next?

MISO <u>filed a Tariff change</u> with FERC on August 27, 2025, to formally transition from the daily peak hour to the all-hours LOLE methodology, ensuring greater alignment with evolving reliability needs. MISO requested an effective date of October 27, 2025, to ensure implementation for the 2026 PRA to clear resources for the 2026/27 planning year.



FAQs

- **Current:** "The sum of the loss of Load probability for the integrated daily peak hour for each day of the year."
- **Proposed**: "An estimate of the average number of days with supply interruption to end use customers, whether for a single hour or multiple hours in a day."

Helpful Links

- Resource Adequacy Subcommittee, Aug. 20, 2025: LOLE Continuing Error
- Settlements User Group Meeting: <u>Settlement Adjustments for LOLE Continuing Error</u>
- MISO's Knowledge Base: Resource Adequacy FAQ