

Feedback on Proposed LMR Accreditation Changes

The E/O Sector objects to the RASC’s straw proposal for load modifying resources (LMR) accreditation as presented on January 8, 2020.

Based on the discussion and presentation, we understand that MISO seeks to ensure that capacity credits awarded to LMRs more accurately capture the availability of those LMRs, which is a laudable goal and one that the E/O Sector supports. However, MISO’s proposed fix to the problem relies on a metric that MISO admits underestimates the amount of LMR’s showing up in the market.

Specifically, MISO presented data from the MISO communication system (MCS) to demonstrate a purported “significant gap” between the Planning Resource Auction (PRA) and daily MCS. Commenters noted that the MISO’s rules for reporting into the MCS prevent accurate reporting of the amount of LMRs on the system. Specifically, the rules result in the underreporting of LMRs. MISO acknowledged that the MCS was not accurate and it was unclear whether improvements were forthcoming.

Without an accurate picture of what LMRs are actually showing up in the market, it is impossible to know the level of gap between capacity credits and LMP availability. MISO should not be relying in an admittedly inaccurate metric to solve a problem whose scope is unknown.

Furthermore, the straw proposal suggests awarding capacity credits to LMRs based on a metric that is known to underestimate the value of LMRs. MISO should not devalue behind-the-meter generation (BTMG) and demand response (DR) in the market. Given the importance of DR in addressing variable generation, MISO should be encouraging the addition of DR into the market.

For these reasons, the E/O Sector urges MISO not to rely on the MCS for purposes of accrediting LMRs in the PRA and also urges MISO to develop a methodology to accurately capture the availability of LMRs in the market for purposes of capacity credits. We agree that an LOLE-type analysis for LMRs based on their operating characteristics and availability at risk points throughout the year is a sensible approach to achieving this end. However, this analysis should not look at LMRs in a vacuum, but should instead be done as part of a system-wide, 8760 analysis looking at all resources and hours, as discussed in more detail below.

Moreover, it is paramount that any changes reducing LMR-capacity accreditation should have a robust underpinning and be phased to avoid the sudden elimination of a large number of LMRs. Forward-looking accreditation changes to address risk should be weighed carefully against the perverse outcome of losing large amounts of LMR in the PRA.

Feedback on Proposed LOLE Modeling Enhancement

To support a robust stakeholder discussion, the E/O Sector continues to urge MISO to conduct a detailed, forward-looking analysis into LOLE risk regarding holistic solutions to ensure the region remains resource adequate into the future as the resource mix changes. This analysis should

contain multiple scenarios to provide a robust view of the potential future reliability risk changes. These scenarios should include:

- Different assumptions on when outages occur, and whether they are planned or not
- Equivalent Forced Outage Rate (EFORDs) that vary by month or season, as well as forecasted generator output (for renewables), to accurately capture generator outage and performance expectations across the entire year.
- Different resource mix assumptions (renewables, flexible load/DR, energy storage, etc.)
- Alternative transmission build outs
- A detailed load and loss-of-load probability (LOLP) forecast throughout the year (hourly if possible)

In addition, we recommend that MISO explore alternative risk metrics so that potential loss-of-load events can be better understood. Each potential LOL event has several characteristics, including the duration of the event, frequency of occurrence, and level of unserved energy. Each of these dimensions capture important characteristics of reliability, and a single metric is unable to do this. We therefore recommend that MISO conduct analysis of the above scenarios and calculate a suite of reliability metrics that include:

- $LOLE_{EV}$ – loss of load events, a count of events
- LOLH – loss of load hours; the number of hours that LOL events occur
- EUE – expected unserved energy

From these metrics the severity of potential LOL events can be better quantified, and remedial actions can be developed. Some LOL events may result in very small amounts of EUE and last for short periods of time, whereas other events may last longer and result in more EUE. Two events that have the same duration may result in significantly different levels of EUE. MISO currently does not distinguish between these, and other, variations in the way that LOL events may unfold. Adopting additional metrics such as these will allow MISO to develop more robust assessments of risks, along with potential mitigation measures. Not all LOL events are created equally.

It appears that MISO has taken some of this work on, as evidenced by the proposed changes to outage modeling in the LOLE analysis to better reflect observed outage trends. While we support this incremental change, MISO's approach stills falls short of providing a comprehensive assessment of the future of LOLE risk. It is insufficient to simply input seasonal unforced capacity (UCAP) values for wind resources. Before implementing changes that may completely miss the mark and provide little value, MISO should take a step back, perform this analysis, share the results with stakeholders, facilitate a robust dialogue to identify the best path forward, and develop a holistic resource adequacy solution that can meet the region's needs for the next decade and beyond. This should include developing procedures to include hourly wind data in the annual LOLE study instead of the current two-step process. It could include moving to an hourly Operating Reserve Demand Curve or similar construct. It could include a seasonal PRA construct. Without this analysis to steer decision making, MISO is at risk of wasting time and resources developing and implementing solutions that will be ultimately inadequate.