



July 15, 2026, Max Gen Event Review

Reposted August 19: Slide 5 corrected time stamp for Max Gen Event; Slide 10 corrected timestamp for Cons. Ops Declarations and date of 2nd max Gen Warning

Reliability Subcommittee/RSC

August 18, 2026

Purpose & Key Takeaway

Purpose

Review the July 15, 2026, Maximum Generation Event to provide insights into key decision points as well as operations lessons learned*

Key Takeaways

MISO managed tight operating conditions across the North and Central regions driven by extreme heat, higher-than-forecast load and persistently low wind output, compounded by reduced solar from wildfire smoke

Under EEA 2, MISO accessed Load Modifying Resources (LMRs) and implemented emergency pricing mechanisms

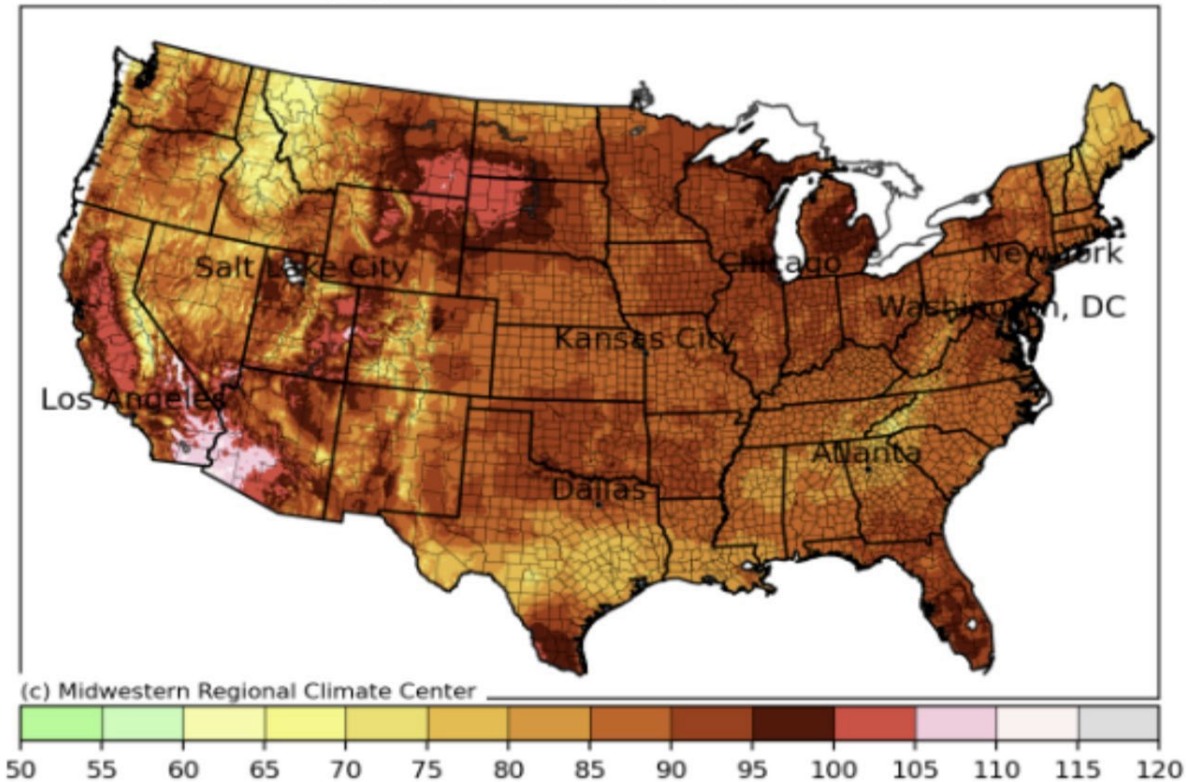
Actual NSI materially exceeded the morning forecast, reaching a record high of 17,715MW at HE21

*Market outcomes, including pricing will be addressed at the Market Subcommittee August 20

Extreme heat in the North and Central regions was forecast in MISO's operations risk assessment

Average Maximum Temperature (°F)

July 15, 2026 to July 15, 2026



MISO made forward declarations based on assessments and forecasts showing negative reserve margins in North and Central regions:

- Capacity Advisory issued for N/C Region
7/13/2026 12:00 – 7/16/2026 20:22
- Conservative Operations declaration for N/C Region
7/13/2026 00:00 – 7/16/2026 23:59
- Hot Weather Alert N/C Region
7/13/2026 06:00 – 7/17/2026 23:59

On July 15, operating day forecast conditions were not substantially improving

- **Peak-hour forecast continued to show negative margins**

- Morning RC calls revealed neighbors with lowered reserve margins and PJM in EEA 1
- Additional uncertainty due to wildfire smoke reducing solar capacity
- Uncertain return times on units already in outage
- Environmental restrictions on units limiting output
- Net Scheduled Interchange (NSI) uncertainty

The following declarations provided non-firm export curtailments, access to emergency ranges and AME unit commitment:

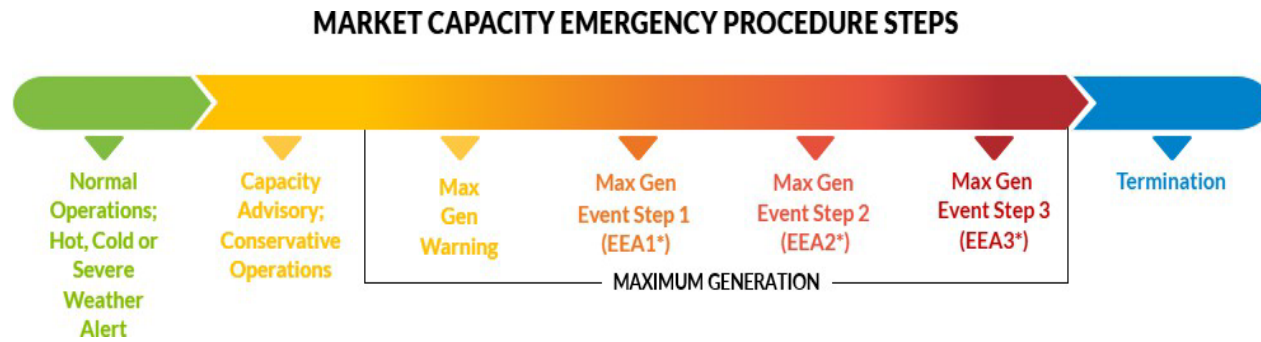
- **08:07** Max Gen Warning starts at 13:00
- **10:12** Max Gen Event Step 1/EEA 1 starts at 14:00

Max Gen Event Step 1 and EEA 1 actions did not provide positive reserve margins

- EEA 1 actions and forecasts showed remaining negative reserve margin of ~550MW
 - NSI forecast was improving, but it was not enough
 - 2,000MW LMR Implemented
 - Initiated Environmental Waivers

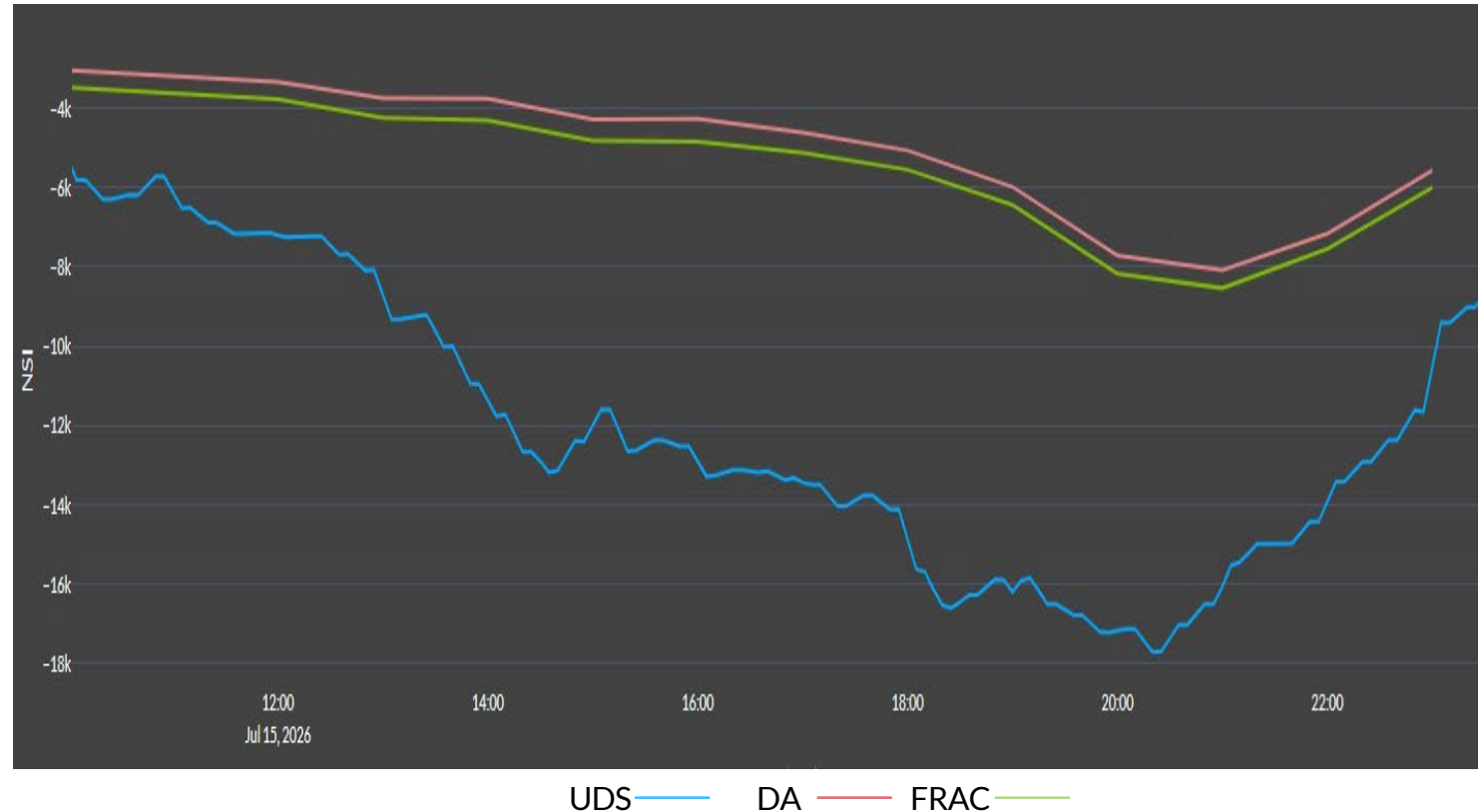
The following declaration provided access to LMR's and Environmental Waivers:

- **13:19** Max Gen Event Step 2/EEA 2 starts at 16:00



Net Scheduled Interchange imports to MISO sets record

- NSI increased to ~12,000MW by HE 16 and to 17,715MW by HE 21*
- High imports resulted in LMRs being cancelled early, at 16:45
- As imports continued to increase, there was a methodical release of event steps/declarations



*Previous Record NSI 6/10/2021 HE17 14,315MW

Wins and Challenges that impacted operations during the July 15 Max Gen Event



Internal Communication

Improved communication through conference bridges, executive updates and event chat



Staffing Support

Additional staffing across all control rooms enhanced operator response, communication, and awareness



Effective Pre-positioning

Pre-positioning through early declarations preserved system flexibility

Lessons Learned

- Solar/smoke forecast modeling improvements
- LMR software improvements to avoid “all or nothing” type of implementation
- Better insight into reliance on NSI for capacity sufficiency
- Additional Public Messaging Clarity in Operator Interface

Contact

MISO Help Center

Appendix

July 15th Maximum Generation Event Step 2

DECLARATIONS

Hot Weather Alert

July 13, 06:00 EST – July 17, 23:59 EST

Capacity Advisory

July 13, 12:00 EST – July 16, 20:22 EST

Conservative Operations

July 13, 00:00 EST – July 16, 23:59 EST

Hot summer temperatures forecasted for the week of July 13–17

PJM and SPP were in different stages of alerts during the event potentially limiting imports

Members asked to defer maintenance and update offers

Capacity analysis consistently indicated negative generation sufficiency across MISO North and Central on July 15

WARNINGS

Maximum Generation Warning

July 15 13:00 EST – 14:00 EST

July 15 17:52 EST – 20:00 EST

Warnings issued due to above normal temperatures and ~3,500 MW of forced generation outages which occurred July 14–15

Forecasted NSI was not expected to show up with PJM in an EEA 1

Early morning North and Central sufficiency indicated ~5,000 MW deficiency for HE 17

EVENTS

Maximum Generation Event, Step 1

July 15 14:00 EST – 16:00 EST

Maximum Generation Event, Step 2

July 15 16:00 EST – 17:30 EST

Maximum Generation Event, Step 1

July 15 17:30 EST – 17:52 EST

Step 1 Event declared due to pervasive heat, higher than forecast load, low wind output, generation outages, reduced imports, and 2GW of solar reduction due to wildfire smoke
Peak hour deficit conditions still existed and Step 2 declared for access to LMRs and environmental waivers

NSI into MISO increased significantly (as high as 17,715 MW) and LMRs were cancelled effective at 16:45 EST