

MAY 25 LOAD SHED EVENT

AUGUST 2025 REPORT



misoenergy.org



Table of Contents

Table of Contents.....	2
About MISO.....	2
Executive Summary	3
Event Overview.....	3
Continuous Improvement in an Evolving Risk Landscape	3
Definitions.....	5
May 25 Event Overview.....	7
Southeast Louisiana System Overview	7
Cause Analysis Summary.....	8
Detailed Event Analysis	9
Conditions Leading Up to May 25	9
Operational Planning Analyses	9
Real-Time Operations – May 24.....	10
Real-Time Operations – May 25 up to 3:59 p.m. EST Declaration of Transmission System Emergency.....	10
Real-Time Operations – May 25 3:59 p.m. EST Through End of Day	11
Lessons Learned.....	12
Internal Processes and Emergency Procedures.....	12
Notification Procedures.....	13
Education and Training.....	13
Appendix A: Timeline – Sequence of Events.....	14
Saturday, May 24.....	14
Sunday, May 25.....	15
Richard–Bayou Cove Concerns.....	15
Transmission System Emergency	16
Restoration.....	17

About MISO

The Midcontinent Independent System Operator, Inc. (MISO) is an independent, not-for-profit organization responsible for operating the bulk electric power system and administering wholesale electricity markets across 15 U.S. states and the Canadian province of Manitoba. MISO ensures the reliable delivery of electricity to approximately 45 million people by managing regional transmission operations, energy and ancillary services markets, and advising on long-term resource planning. MISO manages more than 77,000 miles of transmission lines and more than 1,800 generating units. MISO operates one of the world’s largest organized electricity markets, with over \$40 billion in annual gross market energy transactions. As a North American Electric Reliability Corporation (NERC)-designated Reliability Coordinator, MISO has a wide-area view of the system and the authority to prevent or respond to emergencies.



Executive Summary

On May 25, 2025, Southeast Louisiana experienced a power system emergency that required coordinated, last-resort actions to protect the regional electric grid. The event was driven by a convergence of challenges, including the continued outage of the critical Nelson-Richard 500kV transmission line, the unavailability of more than 50% of local generation due to outages and limited transmission import capability. These challenges culminated in MISO declaring a Transmission System Emergency and directing controlled load shed in the affected area.

The May 25 Load Shed Event was a disruption to residents, businesses and customers in Southeast Louisiana. In line with MISO's commitment to transparency, this report offers a detailed account of the events leading up to the load shed, MISO's role as the Reliability Coordinator, coordination with local Transmission Operators (CLECO, Entergy New Orleans, and Entergy Louisiana), key lessons learned, and areas identified for future improvement.

Event Overview

On May 25 at approximately 4:00 p.m. EST, MISO identified a temporary Interconnection Reliability Operating Limit (IROL) condition, a reliability condition resulting from a potentially overloaded transmission line that threatened grid stability. After exhausting all other available mitigation options, MISO issued emergency operating instructions to local Transmission Operators, directing a reduction in electricity demand by approximately 600 MW to prevent a broader system failure.

As the Reliability Coordinator, MISO is responsible for ensuring the reliable operation of the bulk electric power system across its footprint. This critical role provides MISO with the widest visibility of the electric system and the authority to ensure it remains stable. At times, MISO must take protective actions to prevent widespread and potentially cascading outages. The decision to shed load on May 25 was not made lightly and was the absolute last resort.

MISO worked closely with the local transmission operators, who are responsible for the real-time operation of the transmission system in the affected area. Like MISO, transmission operators are governed by the North American Electric Reliability Corporation (NERC). They have direct control over their local networks and execute emergency orders, such as emergency directives issued by MISO to protect the grid during disturbances.

Continuous Improvement in an Evolving Risk Landscape

The May 25 event is a clear reminder that the risk landscape facing grid operators is shifting. Today's power systems are more complex and operate with tighter margins. As we navigate this transition, MISO remains focused on evolving its tools, procedures and infrastructure through its Reliability Imperative initiatives, with an emphasis on proactive planning, real-time situational awareness and modernized operations.

While the actions taken on May 25 successfully protected the grid, the event also revealed areas for improvement:



- **Internal Processes and Emergency Procedures:** MISO has clearly defined emergency procedures and processes; however, as the grid and risk environment evolve, MISO will leverage this event to assess its protocols to ensure they meet both the operational conditions now and in the future.
- **Notification Procedures:** MISO needs to work with our stakeholders to develop a notification protocol for Transmission System Emergencies. MISO has a mature and well-defined process for notifying stakeholders during capacity emergencies, but more work is required to create an appropriate process for Transmission System Emergencies, while still recognizing that not all grid emergencies allow for advance communications.
- **Education and Training:** The event exposed varying levels of understanding among utilities, public officials and stakeholders about the nature of transmission emergencies versus capacity shortfalls. MISO will expand its outreach and education to foster greater shared understanding and coordination, including information on load pockets, the challenges they present, and the tools and procedures available to respond to different emergencies.

MISO remains committed to learning from this experience, evaluating our internal processes for improvements or enhancements, and strengthening partnerships with stakeholders to ensure informed and coordinated responses in future grid emergencies.



Definitions

Balancing Authority: Organizations that maintain the balance of the real-time production and consumption of electricity.

Interconnection Reliability Operating Limit: A System Operating Limit that, if violated, could lead to instability, uncontrolled separation or cascading outages that adversely impact the reliability of the Bulk Electric System. MISO's operating procedures define a temporary IROL condition when post-contingency loading on a constraint is in excess of 125% of its highest emergency operating limit and would cause cascading outages resulting in the loss of more than 1,000 MW of load.

Load Pocket: Load pockets are defined areas of the grid with limited import capability and a resulting heavy dependence on generation within the load pocket, requiring special planning and operation to meet demand. The currently defined and monitored load pocket areas are geographically located at the edge of the MISO South region.

Planned Outage: An outage that is pre-arranged, studied, coordinated and scheduled with a set of known impacts to the grid. When an outage is planned, MISO Operations teams assess the reliability impact of outage requests across different time frames (operating day, next day and beyond) and operational scenarios to identify potential issues and mitigation plans to allow coordination with owners as needed. Planned generation outages go through a sequence of reliability evaluations, including a supply adequacy review. If a reliability risk is identified in assessments, MISO coordinates with generator owners for rescheduling of planned outages. MISO cannot reschedule a planned generator outage unless there are expected or actual emergency conditions.

Post-contingent Actions: Actions to address electric grid reliability after a specific issue occurs, i.e., a power line going out of service.

Reconfiguration: The process of adjusting switches and other infrastructure within the transmission system to route power in different directions or through different lines, somewhat like a detour leveraged during road construction.

Regional Transmission Organization: An organization granted specific responsibilities by the Federal Energy Regulatory Commission (FERC), an independent agency of the U.S. federal government that regulates the interstate transmission of electricity, natural gas and oil. Rates, terms and conditions by which the organization oversees the regional power grid and coordinates with its member utilities are defined in a FERC-approved tariff.

Reliability Coordinator: Has wide-area responsibility across its footprint to ensure that electricity across the bulk power system is delivered safely and affordably from where it is generated to where it is used in real time, while also ensuring visibility beyond local areas to detect and prevent cascading failures. In this Reliability Coordinator role, regional transmission organizations like MISO coordinate real-time and next-day operations between multiple entities, including Transmission Operators and Balancing Authorities, and have the authority to direct actions,



including load shedding or dispatching of generation, to preserve system reliability. Reliability Coordinator activities are governed by NERC, a non-profit international organization designated by FERC with responsibility for ensuring the reliability, security and adequacy of the bulk power system.

Transmission Operators: Electrical utilities that hold local area responsibility for the real-time operation of the transmission system to ensure reliable delivery of electricity within their specific local area. Transmission Operators are also governed by NERC and have direct control over their local networks, along with the responsibility of executing emergency orders to protect the grid during disturbances. Transmission Operators work in coordination with Reliability Coordinators and neighboring Transmission Operators.

Unplanned Outage: Unplanned outages are reductions or shutdowns of resources due to emergencies, equipment failures, delays returning from planned outages, or other uncontrollable events, meaning that generation or transmission that was anticipated in modeling and studies is no longer available. Generation owners notify MISO of unplanned outages in real time as the outages take place. The impacts of these outages are addressed in real time and incorporated into future study scenarios to build daily operating plans for future days.



May 25 Event Overview

On Sunday, May 25, 2025, around 4:00 p.m. EST, MISO declared a Transmission System Emergency due to a temporary Interconnection Reliability Operating Limit (IROL) identified on the Barkers Corner–Bogalusa 230 kV line. This temporary IROL was due to a combination of factors, primarily the limited transfer capability caused by the ongoing outage of the Nelson–Richard 500 kV line (due to March storms), and a lack of available generation due to both planned and unplanned outages.

After evaluating all other available options, and as a measure of last resort, MISO directed CLECO, Entergy Louisiana and Entergy New Orleans to shed approximately 600 MW of load to maintain the integrity of the bulk electric system. MISO coordinated closely with Entergy and CLECO to bring back the load, and within three and a half hours of the initial load shed, conditions had improved enough to allow members to complete the restoration of power.

Many MISO stakeholders are familiar with capacity emergencies, which are more common and typically communicated in advance through the MISO website. In contrast, the May 25 event was a Transmission System Emergency. Transmission System Emergencies develop more quickly than capacity emergencies and require MISO and its members to take urgent corrective actions within 30 minutes of identifying an IROL. The focus during this relatively brief time is to maintain system reliability and mitigate widespread voltage collapse, transmission system damage and potential cascading outages, leaving limited time for advance public notification.

Southeast Louisiana System Overview

Located at the edge of the MISO system, several areas within the MISO South region have limited connections to the rest of the electrical grid. This creates load pockets, which present a unique set of reliability, planning and market efficiency challenges. Due to their inherently limited import capability, load pockets are heavily dependent on local generation within the load pocket to meet demand. Several load pockets exist along the Gulf Coast, including the Southeast Louisiana region impacted by the May 25 event (figure 1 highlights four of these load pockets).



Figure 1

Because of this heightened dependence on local generation and limited import capability, factors such as generation and transmission outages can have a proportionately greater impact in Southeast Louisiana compared to non-load pocket areas of MISO. In March of 2025, a key transmission line, the Nelson–Richard 500kV line, went out of service due to severe storm damage, limiting transmission capability into the Southeast Louisiana area.



Cause Analysis Summary

The May 25 event was the result of a confluence of factors, as described below.

Generation Outages: Total generation outages amounted to 7,700 MW, with more than 50% of generation capacity in Southeast Louisiana unavailable at the time (figure 2¹).

- Late spring is usually when planned maintenance wraps up to get equipment ready for summer. As a result, four generating units were on planned outage, totaling 2,700 MW.
- The area experienced eight unplanned outages, totaling 3,900 MW.

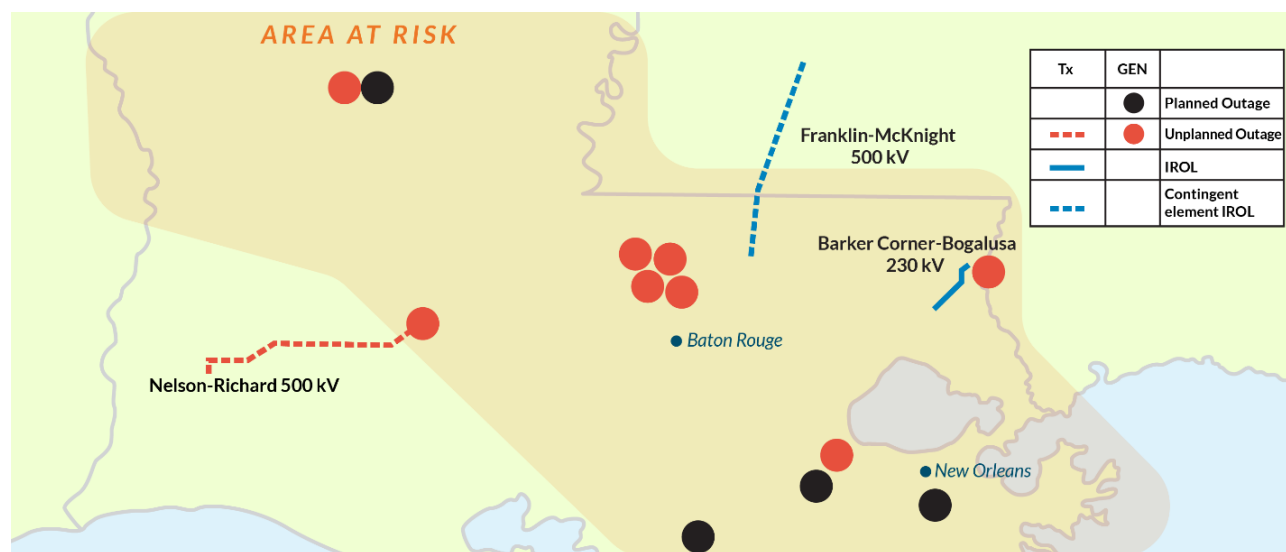


Figure 2

- An additional 1,100 MW of generation was unavailable due to capability derates for generation that was operating on May 25.
- Planned outages are taken for general maintenance, repairs and other tasks that can be identified and scheduled in advance. Unplanned outages and equipment derates are generally caused by equipment failure such as leaks or unexpected mechanical issues that require repair or maintenance. Due to confidentiality, MISO cannot list the names of the generators in each category, nor does it have the specific root causes of these outages.

Transmission Outage: The outage of the Nelson–Richard 500kV transmission line, due to tornado damage in March 2025, further complicated the situation. The loss of access to this line, which can typically move 1,700 MW, limited the amount of power that could be moved into the area from the west.

Lack of Import Capability: The area of Louisiana that was impacted by the May 25 event is considered a load pocket on the transmission system—a geographically defined area with high

¹ The "Area at Risk" on the map highlights the region that could have been impacted by a possible uncontrolled load loss (greater than the controlled amount of 600MW) had MISO not taken measures in directing the load shed in New Orleans, Slidell and North Shore areas.



electricity demand and limited ability to import electricity from outside the area. There were two corridors where transmission constraints created complications for operators: Richard–Bayou Cove 138 kV area and the Barkers Corner–Bogalusa 230kV area.

Higher Temperatures: Temperatures on May 25 were unseasonably high, reaching 90 degrees Fahrenheit, and contributed to high demand in the load pocket.

Reconfiguration: Pre-event planning considered transmission reconfigurations (e.g., Madisonville–Fairview and Adams Creek). However, in real time, these actions proved either insufficient or counterproductive due to voltage and overload concerns. Reconfiguration only became a viable option after load was shed, at which point it was safely implemented.

Detailed Event Analysis

Conditions Leading Up to May 25

In late April, MISO began monitoring the Barker’s Corner–Bogalusa 230kV line for loss of the Franklin–McKnight 500kV line contingency through its market-based congestion management processes, due to the planned outages of Willow Glen–Waterford 500kV line and a large nuclear generating station.

MISO staff were concerned that if the Franklin–McKnight 500kV line went out of service for any reason, the Barker’s Corner–Bogalusa 230kV line would become overloaded, potentially causing cascading outages and voltage collapse. By running studies on these lines, MISO maintained situational awareness of the lines’ capacity to maintain reliability.

Due to these factors, combined with expected load levels over the Memorial Day weekend, MISO committed all available generating units² within the load pocket area and anticipated sufficient generation would be committed to serve the load.

Operational Planning Analyses

MISO performed several studies in preparation for operations over the Memorial Day weekend. Studies indicated anticipated congestion on the Barkers Corner–Bogalusa 230 kV line at 110% and the Richard–Bayou Cove 1 138 kV line at 121%, which did not exceed the IROL threshold of 125%. Due to this information, no further action was taken during Operations Planning.

It is common for study inputs to change between what was forecasted in an Operational Planning study and what occurs in real time. The most common occurrences are changes to weather, load patterns and generation dispatch.

² The only exception was a 700 -MW unit, which remained offline due to its 64-hour start time, meaning it would not have had adequate time to start and provide assistance.



Real-Time Operations – May 24

MISO Reliability Coordinators notified Entergy midmorning on May 24 that, due to unplanned generator outages, there would be little generation left to re-dispatch to address transmission issues in the area. MISO continued to work with Entergy to review options to mitigate the need for post-contingent load shed. MISO explored whether the Nelson–Richard 500kV line (then under repair due to spring storm damage) could be returned to service earlier than originally planned. Due to the need for replacement structures, the line could not be made available. MISO and Entergy also reviewed options for transmission line reconfiguration but found they would only provide limited relief.

Real-Time Operations – May 25 up to 3:59 p.m. EST Declaration of Transmission System Emergency

In the early hours of May 25, 2025, MISO began coordinating with the Southeastern Reliability Coordinator (SeRC) and Entergy to evaluate potential transmission system reconfiguration options to address anticipated congestion in the New Orleans area. These discussions continued throughout the day.

By 8:38 a.m. EST, SeRC approved a reconfiguration at the Adams Creek substation to allow units to come online, as planned, to support the grid. Entergy agreed to implement the change at 11:41 a.m. EST. At 12:56 p.m. EST, Entergy also agreed to a post-contingent reconfiguration at the Madisonville substation for the Barker’s Corner–Bogalusa 230kV line in the event of a Franklin–McKnight 500kV line loss. At that time, MISO informed Entergy that this reconfiguration would alleviate the need for the post-contingent load shed. Between 1:29 and 3:40 p.m. EST, MISO and Entergy worked to resolve an overload on the Richard–Bayou Cove 1 138kV line. By 3:41 p.m. EST, Entergy reported that emergency ratings were still being exceeded, prompting MISO to reduce the output of two units to their economic minimums. However, MISO cautioned that this measure might not resolve the issue due to broader transmission system limitations.

While investigating reconfigurations over the course of May 25, MISO also reviewed Load Modifying Resource (LMR) availability but did not find any viable aid. In May, there were 450 MW of LMRs registered. Only 160 MW were available on May 25, with approximately 125 MW favorably located to provide required relief on the constraints. All the available units required two to six hours of notification time.



Real-Time Operations – May 25 3:59 p.m. EST Through End of Day (Figure 3)

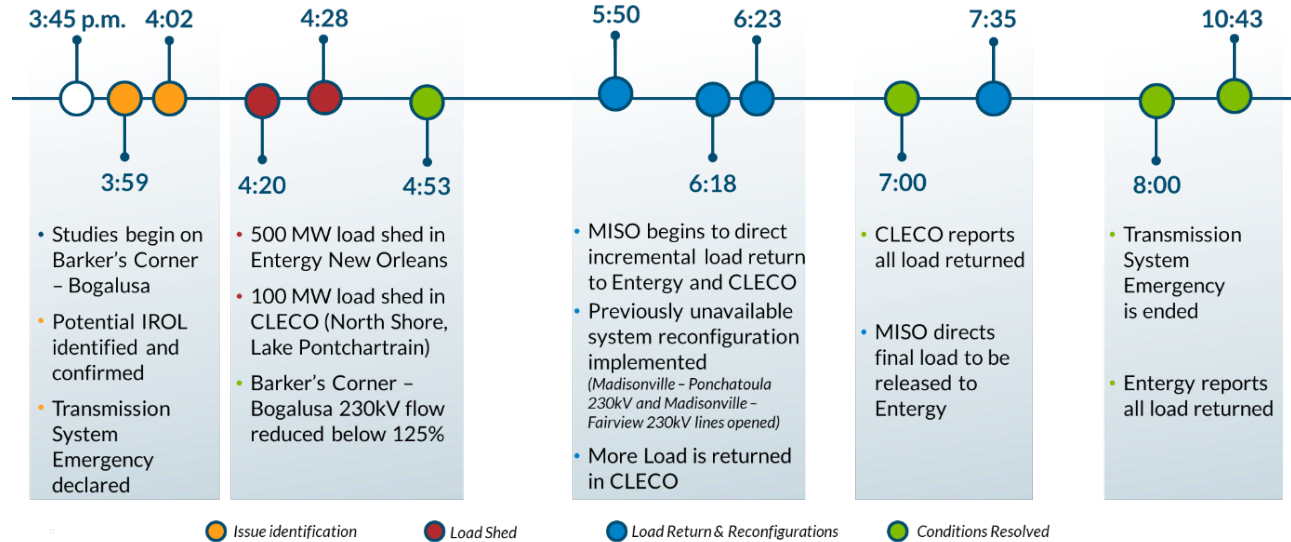


Figure 3

By 3:45 p.m. EST, all available generation within the load pocket was in use, but, due to the many planned and unplanned generation outages, it was not enough to support the system stability needs. Additional generation existed outside the Southeast Louisiana region, but due to the existing Nelson–Richard 500kV transmission line outage west of the load pocket and geographic barriers, there were not enough paths into the load pocket to allow this additional generation to support the area.

At 3:59 p.m. EST, MISO informed Entergy that a transmission system emergency had been declared after studies showed the loss of the Franklin–McKnight 500kV line would result in the overload of the Barker's Corner–Bogalusa 230kV, potentially triggering cascading outages and voltage collapse. As the total amount of load that would be lost could not be determined immediately, MISO decided to treat the Barker's Corner–Bogalusa 230kV line for the loss of Franklin – McKnight 500kV line as a temporary IROL. Once the overload and IROL are identified, MISO must resolve the overloaded constraint within 30 minutes. An official notification of the Transmission System Emergency was issued through the Operator Interface at 4:02 p.m. EST.

Between 4:02 - 4:20 p.m. EST, MISO ran additional studies related to reconfigurations of the Madisonville–Ponchatoula 230kV and Madisonville–Fairview 230kV lines as potential alternatives to load shed. However, while the proposed solution helped address one specific issue, it ultimately worsened other system constraints in the Lake Charles, Louisiana and Brookhaven, Mississippi, areas, making it an unviable solution to avoid load shed.

At 4:20 p.m. EST, MISO issued an Emergency Operating Instruction to Entergy to shed 500 MW of load in the New Orleans and Slidell areas. Four minutes later, Entergy operators called back asking for clarification on the operating instruction. Then, at 4:28 p.m. EST, MISO issued an emergency operating instruction to CLECO to shed 100 MW in the Northshore area. CLECO called back four



minutes later for clarification on the instruction. At 5:10 and 5:13 p.m. EST, respectively, CLECO and Entergy confirmed they had implemented their load shed instructions.

When MISO Reliability Coordinators issue Emergency Operating Instructions to shed load in a Transmission System Emergency, they provide a general area (in this case, New Orleans, Slidell and the North Shore). Then, Transmission Operators are responsible for determining where the load will be shed within the designated area based on their internal load shed plans.

Any rotation of outages is coordinated by the Transmission Operators with MISO to ensure compliance with the mitigation instructed to each entity. Due to the circumstances during the May 25 event, the greater New Orleans geographic area was the only location that could address the issue.

Load Shed Instruction Timeline:

- 4:20 p.m. EST: MISO issued an emergency instruction to Entergy to shed 500 MW of load in the New Orleans and Slidell area.
- 4:28 p.m. EST: MISO issued an instruction to CLECO to shed 100 MW of load in the Northshore area.
- 5:10 p.m. EST: CLECO confirmed implementation of instruction
- 5:13 p.m. EST: Entergy confirmed implementation of instruction.

Beginning at 5:48 p.m. EST, MISO began directing Entergy and CLECO to restore power in blocks to maintain grid stability. CLECO confirmed the organization's load was fully restored at 7:00 p.m. EST. At 7:35 p.m. EST, MISO fully released the load. At 8:05 p.m. EST, the Transmission System Emergency was terminated, and by 10:43 p.m. EST, all remaining load was returned by Entergy.

Lessons Learned

Internal Processes and Emergency Procedures

MISO has internal processes and clearly defined emergency procedures that support system reliability. However, as grid conditions grow more complex and dynamic, there is an opportunity to reassess these protocols to ensure they meet the needs of today's operational realities and provide timely information to impacted members.

Additionally, Load Modifying Resource availability and lack of aligned naming conventions continue to limit MISO's ability to locate the appropriate units and leverage them effectively during Transmission System Emergencies.

Action Items

- Investigate opportunities to adjust internal procedures related to transmission system concerns
- Review forward-reliability process
- Continue Load Modifying Resource reform



Notification Procedures

MISO recognizes that the absence of a formal, pre-emergency declaration for Transmission System Emergencies limited the situational awareness paths available to MISO, member utilities, elected officials and residents. The lack of public notification resulted in residents and elected leaders feeling unprepared for the impending loss of power. Not all Transmission System Emergencies will allow for warning ahead of a load shed order. However, MISO is identifying opportunities to improve communication to give member utilities the time needed to alert their customers and regulators when possible.

Action Item

- Through MISO's stakeholder process—beginning in the third quarter 2025—evaluate and implement opportunities for improved or enhanced communication between MISO and member utilities.

Education and Training

Capacity and transmission emergencies differ significantly in appearance, timeline, and response, and public stakeholders do not have a strong understanding of these differences. Additional education for elected officials would help set expectations for less common events.

Additionally, conversations should occur with member utilities' operators and management to ensure they understand their specific roles, responsibilities, and what is expected of them during transmission and capacity load shed events. Misunderstandings about operator instructions, the IROL standard, and the time permitted to complete the load shed complicated the response to the May 25 event. MISO is developing a load shed workshop and tabletop exercise to address these knowledge gaps between MISO and member utilities.

Action Items

- Integrate IROL and Transmission System Emergencies into MISO's load shed workshops and tabletop exercises.
- Expand planned load shed workshops and tabletop exercises to include additional members.



Appendix A: Timeline – Sequence of Events

All times referenced are Eastern Standard Time

- 03/24/2025 0615: Nelson–Richard 500kV line went out of service due to damage from severe storms, limiting transmission capabilities into the southeast Louisiana area.
- 04/26/2025 1035: MISO entered the Barker’s Corner–Bogalusa 230kV for loss of the Franklin–McKnight 500kV line contingency into its market-based congestion management system. This was due to the planned outages of the Willow Glen–Waterford 500kV line and a 1,200 MW generating station.
 - MISO staff were concerned that if the Franklin–McKnight 500kV line went out of service for some reason, the Barker’s Corner–Bogalusa 230kV would become overloaded, which would have caused further cascading outages and possible voltage collapse. By running studies on these lines, MISO maintained situational awareness on the lines’ capacity to maintain reliability.
- 05/21/2025 1408: A 1,000 MW generating station entered an unplanned outage.
- 05/23/2025 1655: A 590 MW generating station entered an unplanned outage.

Saturday, May 24

- 05/24/2025 1125: MISO Reliability Coordinators notified Entergy that due to generator outages, there was very little generation left to re-dispatch to address transmission issues in the area. Load shed was included in the post-contingent action plan.
- 05/24/2025 1518: A 440 MW generating unit began reducing load to come offline due to a mechanical issue.
- 05/24/2025 1531: MISO reliability coordinators called Entergy to notify them that the 440 MW generating unit would be coming offline, and that this would have a negative impact on the Barker’s Corner–Bogalusa 230kV line for loss of the Franklin–McKnight 500 kV line. MISO reliability coordinators mentioned this would increase the amount of post-contingent load shed if required. Entergy informed MISO reliability coordinators that they were studying a transmission reconfiguration option for the Madisonville–Ponchatoula 230kV line to provide some relief on this line.
- 05/24/2025 1548: MISO and Entergy agreed that opening the Madisonville–Ponchatoula 230kV line could be part of the post-contingent action plan, but it would only help slightly and would not eliminate the need for load shed.
- 05/24/2025 1819: MISO Reliability Coordinators asked Entergy whether the Nelson–Richard 500kV line could return to service before the planned return date of May 30. Entergy agreed to make inquiries and get back to MISO.
- 05/24/2025 1845: Entergy informed MISO Reliability Coordinators that the Nelson–Richard 500kV line could not be returned early due to the need to replace structures. MISO Reliability Coordinators mentioned that due to the transmission constraints, if lines became sufficiently overloaded, load shed could be required for post-contingent actions to address the issues.



Sunday, May 25

- 05/25/2025 0155: MISO began coordinating with Southeastern Reliability Coordinator (SeRC) and Entergy to study possible transmission system reconfiguration options to alleviate predicted transmission system congestion around the New Orleans area later in the day.
- 05/25/2025 0838: SeRC agreed to the transmission reconfiguration at the Adams Creek substation to allow 235 MW units to come online and help with congestion.
- 05/25/2025 1141: Entergy agreed to implement the transmission reconfiguration at the Adams Creek substation.
- 05/25/2025 1256: Entergy agreed to a transmission reconfiguration post-contingent action at the Madisonville substation for the Barker's Corner–Bogalusa 230kV line for loss of the Franklin–McKnight 500kV line contingency. At that time, MISO informed Entergy that this reconfiguration would alleviate the need for the post-contingent load shed.

Richard–Bayou Cove Concerns

- 05/25/2025 1329: Entergy agreed to a post-contingent action plan for the Richard–Bayou Cove 1 138kV line for the loss of Richard–Bayou Cove 2 138kV line involving lowering generation of three 116 MW units and a 930 MW generating unit.
- 05/25/2025 1348: MISO began coordinating with Entergy on a transmission reconfiguration at the 930 MW unit's substation to mitigate transmission congestion in the area around the Lake Charles area, with the Nelson–Richard 500kV line out of service.
- 05/25/2025 1406: MISO recommended implementing the reconfiguration at the 930 MW unit immediately pre-contingent. Entergy responded that they would get back to MISO after discussing the reconfiguration with management.
- 05/25/2025 1418: MISO requested Entergy to study a transmission reconfiguration involving the Bayou Cove substation in combination with the 930 MW unit reconfiguration. Entergy responded that they would have to get manager approval before agreeing to these reconfigurations.
- 05/25/2025 1423: Entergy informed MISO that they were experiencing a real-time overload of the Richard–Bayou Cove 1 138kV line. Entergy told MISO that immediate action was needed to remedy this, and MISO agreed to manually adjust the output of one of the 116 MW units in response.
- 05/25/2025 1430-1530: Entergy and MISO remained in contact regarding the line overload issue, attempting to find a solution.
- 05/25/2025 1541: Entergy informed MISO that they were still exceeding the emergency ratings for the Richard–Bayou Cove 1 138kV line. MISO lowered the two additional 116 MW units to their economic minimum generation level. MISO explained to Entergy that this may not solve the problem as the overall issue was the limited transmission system capability to serve load.
 - The transmission and generation dynamics that unfolded between 1300 and 1545, particularly involving the Richard–Bayou Cove 138kV #1 & #2 lines, the status of three



116 MW units, and the sustained unavailability of support across the Lake Charles Bulk 138kV interface, heavily impacted the amount of load flowing on other import lines. At this point, there was no capacity to increase the amount of electricity flowing into the load pocket.

Transmission System Emergency

- 05/25/2025 1559: MISO informed Entergy that they were declaring a Transmission System Emergency due to a cascading outage study result that found that the loss of the Franklin–McKnight 500kV line would have resulted in the overload of the Barker’s Corner–Bogalusa 230kV line, the loss of which would have caused further cascading outages and possible voltage collapse. As total amount of load that would be lost could not be determined immediately, MISO made the conservative decision to treat the Barker’s Corner–Bogalusa 230kV line for the loss of Franklin–McKnight 500kV line as a temporary IROL.
 - Once the overload and IROL occur, MISO is required by federal guidelines to address and resolve the overloaded constraint within 30 minutes.
- 05/25/2025 1602: MISO issued a declaration of a Transmission System Emergency via Operator Interface for the temporary IROL post- contingent exceedance of Barker’s Corner–Bogalusa 230kV line for the loss of Franklin–McKnight 500kV line.
- Between 1602 and 1620, studies were run related to a reconfiguration of Madisonville–Ponchatoula 230kV and Madisonville–Fairview 230kV lines as a possibility in lieu of load shed. However, while the proposed solution helped address one specific issue, it ultimately worsened other system constraints that operators were already struggling to manage in the Lake Charles, LA and Brookhaven, MS area.
- 05/25/2025 1604: Entergy informed MISO that the Richard–Bayou Cove 1 138kV line was no longer exceeding its emergency rating. MISO also raised the Marginal Value Limit, resulting in increased market action to reduce emergency rating exceedance.
- 05/25/2025 1606: MISO issued a notification via the Reliability Coordinator Information System of the Transmission System Emergency.
- 05/25/2025 1620: MISO issued an operating instruction to Entergy to shed 500 MW of load in the New Orleans and Slidell area effective immediately, until further notice.
- 05/25/2025 1625: Entergy called MISO with the question, “Management want us to ask real quick, do you want us to do this prior to trying to do this reconfig, right?” MISO responded that they wanted the load shed done immediately.
- 05/25/2025 1628: MISO issued an Operating Instruction to CLECO to shed 100 MW in the Northshore area effective immediately, until further notice.
- 05/25/2025 1632: CLECO called MISO to ask the reason for the load shed order. MISO responded by explaining the generation and transmission situation requiring the order. CLECO responded that they were working on implementing the order.



- 05/25/2025 1640: MISO called Entergy to get an update on the amount of load that had currently been shed. Entergy responded that they had shed 75 MW using the distribution system and that they were working on shedding load using the transmission system.
- 05/25/2025 1653: The Barker's Corner–Bogalusa 230kV line for loss of the Franklin–McKnight 500kV line contingency fell below 125% post-contingent overload, ending its classification as a temporary IROL.
- 05/25/2025 1710: CLECO informed MISO that as of 1705 they had shed 104 MW of load.
- 05/25/2025 1713: Entergy informed MISO that they had shed 585 MW of load.
- 05/25/2025 1742: MISO and Entergy began coordinating to perform the transmission reconfiguration at the Madisonville substation.

Restoration

- 05/25/2025 1748: MISO issued an Operating Instruction to Entergy to restore 100 MW of load in the New Orleans area.
- 05/25/2025 1749: MISO issued an Operating Instruction to CLECO to restore 20 MW of load previously shed. CLECO informed MISO they would accomplish this by shedding 80 MW in one area and restoring 100 MW in a different area at the top of the hour, in a rolling blackout scheme.
- 05/25/2025 1752: Entergy called MISO to inform them that their initial report of 585 MW of shed load was incorrect, the actual value was 460 MW of load shed, asking if this would change MISO's Operating Instruction to restore 100 MW of load. MISO responded to carry out the Operating Instruction and restore 100 MW of load.
- 05/25/2025 1804: MISO called Entergy to evaluate additional load restoration with the understanding that post-contingent load shed would be needed if the Barker's Corner–Bogalusa 230 kV line for loss of the Franklin–McKnight 500 kV line contingency were to occur.
- 05/25/2025 1805: CLECO informed MISO that 20 MW of load restoration was completed.
- 05/25/2025 1806: Entergy informed MISO that they would prefer to wait until after the Madisonville transmission reconfiguration has been evaluated and implemented before any further load restoration takes place.
- 05/25/2025 1816: CLECO informed MISO that they had completed their study of the Madisonville transmission reconfiguration and were good with proceeding with implementation. MISO issued an Operating Instruction to CLECO to implement the Madisonville transmission reconfiguration.
- 05/25/2025 1822: MISO issues an Operating Instruction to Entergy for an additional 100 MW of load to be restored.
- 05/25/2025 1822: MISO issues an Operating Instruction to CLECO for an additional 20 MW of load to be restored.



- 05/25/2025 1836: CLECO informed MISO that they had completed the Operating Instruction to restore 20 MW of load. MISO issued CLECO an Operating Instruction to restore an additional 20 MW of load.
- 05/25/2025 1843: Entergy informed MISO that they had completed the Operating Instruction to restore 100 MW of load. MISO issued Entergy an Operating Instruction to restore an additional 100 MW of load.
- 05/25/2025 1847: CLECO informed MISO that the Operating Instruction to restore 20 MW of load was completed. MISO issued an Operating Instruction to restore the remaining 40 MW.
- 05/25/2025 1900: CLECO informed MISO that all load previously ordered to be shed had been restored.
- 05/25/2025 1924: Entergy informed MISO that due to load dropping off, finding the 100 MW of load to restore from the previous load restoration Operating Instruction was becoming more difficult. MISO issued an Operating Instruction to Entergy for an additional 100 MW of load to be restored.
- 05/25/2025 1935: MISO issues an Operating Instruction to Entergy to restore the final 100 MW of load originally shed.
- 05/25/2025 2005: MISO terminated the Transmission System Emergency and notified MISO members via Operator Interface.
- 05/25/2025 2049: Entergy reports all load has been restored except for one feeder breaker which was having issues.
- 05/25/2025 2243: Entergy reports that all load previously ordered to be shed had been restored.