



2026 RELIABILITY IMPERATIVE REPORT

- UPDATED FEBRUARY -

Living Document

This is a “living” report that is updated periodically as conditions evolve, and as MISO, stakeholders and states continue to assess and respond to the Reliability Imperative.



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A Message from John Bear, President and CEO

Since launching the Reliability Imperative more than five years ago, MISO has moved decisively to prepare for a grid operating under new realities. MISO anticipated that reliability would be tested by shifting supply, rising demand, and increasing system complexity and acted early to get ahead of it. Today, those actions are paying off.



What differentiates MISO is not only its size or scope, but how states, utilities, and MISO plan, coordinate, and move together. Members rely on a collaborative regional model to meet growing demand, supported by markets, operations, and planning that evolve quickly enough to keep pace with change. MISO enables this approach by integrating those functions and providing a regional view of risk, helping members align decisions, manage complexity, and deliver reliable outcomes.

MISO's system has operated through some of the most extreme weather and highest demand conditions on record, including events that test planning assumptions and real-time operations. While these challenges underscore the complexity of today's grid, they also provide critical insights. MISO has continued to improve grid efficiency, generator outage coordination, and the management of transmission system. We have also modernized how reliability is measured and valued through accreditation reforms and enhancements to the Planning Resource Auction. These efforts are part of the Reliability Imperative's focus on identifying risk early and strengthening the tools needed to manage it.

At the same time, MISO is confronting an entirely new growth challenge. Large, concentrated loads, driven by data centers, manufacturing, and reshoring, are emerging across the footprint, many in areas never designed for that scale of consumption. MISO is addressing those challenges head-on by accelerating interconnection timelines and advancing transmission plans in both the South and Midwest to support reliability, efficiency, and economic growth.

The grid is changing, but not in a single direction. While renewable additions remain important, our members' plans now reflect a balanced resource mix, including new dispatchable generation and storage to maintain reliability. MISO's role remains the same: to enable member choices and ensure the system operates safely and efficiently.

The stakes have never been higher, but neither has MISO's sense of purpose. The Reliability Imperative continues to guide the decisions MISO makes to anticipate challenges, move with urgency, and uphold reliability and efficiency as the foundation of the region's progress. The challenges MISO faces are real, but so is its readiness. Through the strength of its people, partners, and planning, MISO has the tools and resolve to manage them.

This report outlines how far MISO has come and where it is headed next. The pace of change will not slow, and neither will MISO. Together with its members, regulators, and stakeholders, MISO is ensuring that reliability remains the defining strength of this system for decades to come.

John R. Bear
President and Chief Executive Officer



Executive Summary

The MISO region is undergoing rapid and sustained change, but MISO is not responding incrementally. Through the Reliability Imperative, MISO is aligning planning, markets, operations and transmission to manage reliability as a year-round, systemwide challenge. Demand is forecast to rise at levels not seen in decades, driven by energy-intensive loads such as data centers, manufacturing expansion, and electrification. These additions, often concentrated in locations not designed for such scale, are creating new stresses on a system already adapting to a more weather-dependent generation fleet.

This combination of accelerating demand, uneven supply growth, and shifting risk windows requires a different approach. The region can no longer rely on predictable seasonal peaks or incremental improvements to maintain system performance. Instead, reliability must be managed as a year-round challenge shaped by shifting risk windows, variable supply, and localized system constraints, including increasing load pocket risk, long-duration outages, and greater variability in load growth.

MISO's Reliability Imperative provides the structure for responding to these conditions. It brings together reforms, tools, and planning processes that align markets, operations, and transmission with the changing grid. The four pillars of this framework focus on:

- **Market Redefinition:** Updating market constructs, accreditation, and shortage pricing to reflect evolving reliability risks, send accurate investment signals, and value resource performance in all seasons and conditions.
- **Operations of the Future:** Enhancing forecasting, real-time visibility, and operator tools while improving coordination between markets and operations and advancing joint preparedness with members and states for extreme conditions.
- **Transmission Evolution:** Advancing regional transmission planning and interconnection processes to support state resource plans, enable large loads and new resources, and addressing emerging system constraints across the footprint.
- **System Enhancements:** Building a secure, data-driven digital foundation through advanced modeling, automation, and strengthened cyber and physical security to support reliable market and grid operations.

These efforts are supported by enabling capabilities that have advanced significantly over the past year. Updated long-term planning scenarios, queue reforms and the Expedited Resource Addition Study accelerate “speed to power” by reducing study times and moving critical projects into service faster. Transmission planning continues in the Midwest and South, while operational improvements, from dynamic operating reserve requirements to updated accreditation, are aligning reliability tools with evolving risk patterns.

Reliability remains a shared responsibility. MISO provides the regional view, models, markets, and tools, while members and states advance timely resource development, coordinate large-load planning, and align decision-making. The pace of system changes demands sustained partnership, transparency, and faster coordination.

This report outlines the conditions shaping the region's reliability outlook and the actions MISO, members, and states can take to ensure the system remains reliable, resilient, and ready for continued growth.



Powering Progress through Regional Coordination

Regional coordination through MISO continues to deliver value by enabling shared solutions, reducing duplication, and optimizing investments across a diverse footprint. As affordability concerns grow, aligning planning and execution remains the most cost-effective path to sustaining reliability and requires continued coordination, collective action, and shared commitment across the MISO region.

Through the Reliability Imperative, MISO is providing the regional tools, insights, and integration needed to support this transition. Reliability, however, remains a shared responsibility. Success depends on how effectively states, utilities, market participants, and MISO align planning decisions and investments. This call to action outlines the key steps required to do so.

STRENGTHENING REGIONAL PLANNING AND ALIGNMENT

The MISO region's strength has long rested on proactive planning by locally regulated utilities, informed by state priorities and enabled through regional coordination. As load growth accelerates and decisions carry broader system impacts, disciplined forecasting and aligned planning are increasingly critical. Shared assumptions, credible data, and coordinated timelines are essential to keeping reliability ahead of change.

Optimizing member plans requires alignment across the systems that deliver reliability:

- **Markets** that align prices and signals with behaviors and performance needed during periods of system stress.
- **Operations** that manage increasing variability, uncertainty, and localized risk in real time.
- **Transmission** that supports evolving resource portfolios, large load additions, and shifting risk patterns.
- **Digital systems and analytics** that deliver speed, visibility, and security at scale.

MISO's role is to integrate these functions so member plans are reliable, efficient, and executable at scale.

Speed, reliability, and predictability are essential for large load integration. Large load growth is compressing traditional planning timelines and reshaping demand across the MISO region. Supporting these investments requires speed and coordination, enabled by predictable interconnection processes, timely generation development, and transmission solutions that keep pace with demand to sustain economic growth while maintaining reliability.

As system complexity increases, reliability depends on better foresight. Improved visibility into load growth, generation performance, weather impacts, and operational risk allows challenges to be anticipated rather than managed reactively. Shared data, transparent assumptions, and regional insight are critical to informed decision-making.



Why Speed Matters

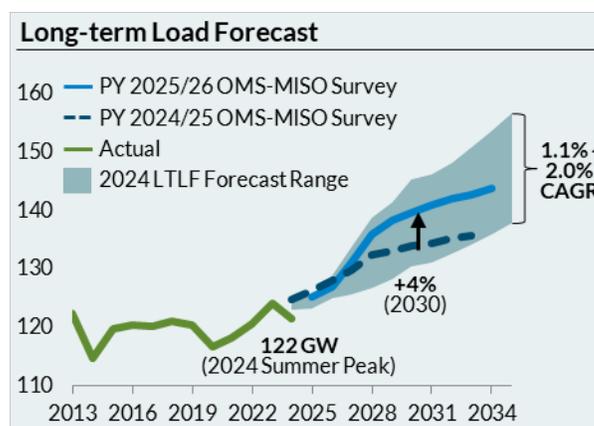
The MISO region is entering a new era of complexity, one where reliability can no longer be planned around predictable peaks or solved with incremental change. Instead, it must be delivered in the face of a combination of pressures reshaping the grid’s structure, speed, and scale.

Reserve margins are tighter across the footprint, reflecting both a leaner system and a more efficient one. During years of flat load growth, members were able to remove excess capacity and rely on the strength of a shared resource pool. With demand now growing rapidly, it is critical that existing resources be maintained and new builds accelerated.

A SYSTEM UNDER PRESSURE

Demand is accelerating

Energy-intensive loads such as data centers, manufacturing expansion, and electrification are adding sustained, concentrated load at levels not seen in decades. While electricity demand growth has been relatively flat at an annual average of just 0.5% between 2009 and 2024, MISO is projecting a substantial increase of 1% to 2% per year through 2044. These increases often occur in locations with limited transmission headroom, creating new planning and operational pressures. As AI, data centers, and advanced manufacturing accelerate nationally, MISO’s ability to move faster is becoming a prerequisite for regional competitiveness, not a nice-to-have.



Permitting and siting delays persist

Even when projects move forward, local siting challenges, labor shortages, environmental reviews, and other factors can extend construction timelines, prolonging periods of elevated reliability risk. For most of 2025, approximately 52 GW of approved generation was awaiting construction, and nearly 32 GW of that generation reported an expected delay in the Commercial Operations Date.

Planned Resource Additions 2024 Regional Resource Assessment vs. 2025 Futures Survey		
	More Dispatchable	Less Renewable
2030	↑ 47%	↓ -42%
2035	↑ 36%	↓ -44%
2040	↑ 35%	↓ -45%

Resource change is uneven

New generation is being added, but not yet at the pace required to meet rising demand. Retirements continue, and most new supply comes from renewables and storage, with gas beginning to re-emerge where firm capacity is needed. Permitting timelines, supply-chain constraints, and financing conditions slow the progression from planning to operation.

Variability is the new baseline

Higher renewable penetration makes the system more sensitive to weather and time-of-day patterns. As load growth becomes more dynamic, the system requires additional flexibility, faster ramping capability, and greater situational awareness to maintain balance.



OPERATIONAL RISK IS RISING

These system-level shifts are already present in real-time operations, tightening margins and increasing uncertainty. MISO has identified a set of established and emerging operational risks that now shape planning, operations, and market design.

- **Long-Duration Outages:** Prolonged resource unavailability from weather or fuel issues strains energy supply.
- **Net-Load Shape:** Evolving resources increase load variability, requiring more flexible ramping.
- **System Stability:** Fewer synchronous resources and more inverters reduce grid stability and complicate assessments.
- **Large Loads:** Rapid growth of large loads adds strain on planning for ramp, adequacy, and stability.
- **Load Pocket Adequacy:** Areas at the edge of the MISO system with limited import capability are reliant on local generation and face distinct risks.

PLANNING FOR SPEED, SCALE, AND FLEXIBILITY

MISO is modernizing its tools, assumptions, and processes to reflect this new environment:

- **Futures Redesign:** Updated planning scenarios incorporate higher load forecasts, revised federal incentives, and new economic and policy sensitivities to provide a more realistic foundation for long-term planning.
- **Queue Reforms and ERAS:** A capped queue, automation tools, and the Expedited Resource Addition Study (ERAS) reduce study times and accelerate critical projects, enabling member plans and goals to move forward more quickly.
- **Transmission Expansion:** MISO's most recent Transmission Expansion Plan (MTEP25) includes 400 projects that support large-load integration, regional transfer capability, and member and state plans across the footprint.
- **Operational Enhancements:** Dynamic ramp requirements, improved outage coordination, and updated accreditation align day-ahead and real-time operations with current risk patterns.

WHY SPEED AND COORDINATION MATTER

The combined effect of rising demand, resource variability, and shifting risk windows requires a fundamental shift in how reliability is planned and operated. MISO enables the resource choices of its members and states by integrating planning, markets, and operations to support those decisions reliably, efficiently, and at scale.

Reliability is no longer assured by legacy tools or timelines. It must be built through coordinated action, faster execution, and sustained alignment among MISO, members, states, and partners.



Reliability Imperative Overview

RELIABILITY FOR A CHANGING GRID

The Reliability Imperative is MISO’s long-term framework for sustaining reliability as the energy system becomes more complex. This framework integrates reforms across markets, operations, and transmission to address emerging risks before they materialize. Introduced in 2020, it reflects the shared responsibility of MISO, its members, and states to anticipate system risks, align investments, and modernize operations for the decades ahead.

Across the MISO footprint, load growth, technology innovation, and resource shifts are redefining how reliability is planned and delivered. The pace of renewable additions may fluctuate, but grid complexity continues to rise as large new loads, extreme weather, and localized reliability constraints test the limits of existing systems.

The Reliability Imperative organizes MISO’s work into four interconnected pillars that together strengthen the region’s reliability foundation.

Each pillar includes specific strategic objectives that align near- and long-term actions to a common goal: maintaining a reliable, resilient, and efficient grid for the 45 million people MISO serves.

	MARKET REDEFINITION	Forecast risks and provide market signals to address changing grid reliability needs
	TRANSMISSION EVOLUTION	Develop transmission plans and align new generation interconnection with member-driven plans
	OPERATIONS OF THE FUTURE	Modernize MISO’s operational capabilities to ensure a reliable, efficient and resilient grid amidst the evolving energy landscape
	SYSTEM ENHANCEMENTS	Advance digital tools and architecture to securely drive grid and market evolution



Pillar 1: Market Redefinition

FORECASTING RISKS AND REDEFINING MARKET SIGNALS FOR RELIABILITY

As the grid evolves toward a more variable and weather-dependent resource mix, traditional market constructs are no longer sufficient to ensure reliability. The Market Redefinition pillar addresses this challenge by forecasting risks and providing market signals that support dependable operations across all seasons and system conditions. The work focuses on three key priorities:

- Forecast risks and provide market signals to address reliability needs
- Incentivize reliable supply and its performance
- Reflect evolving resource adequacy assessments and outlooks

PROGRESS TO DATE – MARKET ENHANCEMENTS FOR A CHANGING GRID

The transformation of the generation fleet has changed how and when reliability risk emerges. Once concentrated on predictable summer peaks, risk now appears across seasons and hours of the day as weather, renewables, and new loads interact in complex ways. MISO's markets are being redefined to keep pace with this new reality.

In recent years, MISO has implemented a series of reforms to better align market prices and signals with behaviors and performance required from generators, particularly during stressed system conditions. New seasonal capacity structures and forward-looking accreditation approaches evaluate performance based on how resources respond when the system is most stressed, ensuring that reliability value is accurately measured and rewarded. The introduction of the Reliability-Based Demand Curve further strengthens these outcomes by improving the alignment between capacity prices and system conditions, providing clearer investment signals where reliability needs are greatest. Updated demand and emergency resource rules further improve availability and verifiable performance during high-risk hours, strengthening the system's dependable response. Shortage pricing reforms have enhanced price transparency, ensuring prices rise when the system is under stress and clearly signal the need for generators to perform when reliability is most at risk. More accurate weather-based transmission line ratings will improve real-time congestion management and strengthen the connection between operations and market outcomes.

MISO has also advanced work to better define and value the reliability attributes the system increasingly depends on and is executing a resource adequacy metrics roadmap that complements traditional loss-of-load targets with measures that reflect the magnitude, duration, and frequency of events. These efforts strengthen the connection between planning, markets, and operations so prices more consistently indicate the cost of reliability and guide investment toward the resources and locations that matter most.

Together, these advancements signal a decisive shift toward markets that anticipate reliability needs, align prices with performance expectations, and guide investment in alignment with the changing character of the grid.



WHAT'S NEXT – ALIGNING MARKET SIGNALS WITH THE NEXT ERA OF RELIABILITY

As electrification accelerates and large loads such as data centers and manufacturing facilities reshape demand, markets must continue to evolve. MISO's next phase of work will focus on integrating emerging technologies, refining risk metrics, and linking planning and operations through more dynamic market designs.

New participation models will enable resources such as storage, aggregated demand response, and distributed assets to contribute to reliability more flexibly. More accurate weather-based transmission line ratings will improve real-time congestion management and locational price formation. Market rules and accreditation methods will continue to evolve to ensure these participants are valued according to their proven performance when reliability is most at risk. MISO will also improve how market outcomes reflect local and temporal differences in risk, helping direct investment and operational decisions where they have the greatest impact, particularly in areas with limited import capability. The result will be markets that not only respond to change but anticipate it, continuously adapting to the evolving character of the grid while reinforcing reliability, transparency, and efficiency.





Pillar 2: Operations of the Future

BUILDING THE CAPABILITIES TO OPERATE A MORE COMPLEX GRID

The grid of the future demands faster decisions, deeper foresight, and greater resilience. As variable generation grows, weather events intensify, and new technologies reshape the system, MISO's operational role becomes ever more critical. The Operations of the Future pillar ensures that MISO's people, tools, and processes evolve to keep pace with this complexity. The work is organized around three priorities:

- Build operator capabilities, tools, and automation
- Manage reliability risk in grid operations
- Strengthen emergency preparedness, tabletops, and simulation

PROGRESS TO DATE – MANAGING INCREASED UNCERTAINTY IN REAL TIME

The grid is no longer operated on the assumptions of the past, where hourly decisions and predictable load patterns defined the rhythm of the day. Today, MISO operators make minute-by-minute decisions as they manage a system increasingly shaped by renewable variability, load fluctuations, and weather events. The Operations of the Future pillar has focused on building the capabilities and tools needed to manage this complexity. Together, these advancements, spanning operator readiness, simulation capabilities, and new outage and congestion-management tools, have strengthened MISO's operations and are building the foundation required to operate an increasingly dynamic, data-driven grid.

Enhanced operator training and simulation programs have expanded MISO's talent pipeline and improved readiness for extreme conditions. Modern logging, communication, and outage-coordination systems now provide richer data and greater situational awareness, reducing manual workload. Machine-learning forecasting models deliver probabilistic insights that help operators anticipate tight conditions and act before problems arise. Dynamic reserve management tools allow MISO to adjust operating reserves in real time as uncertainty shifts across the footprint. The rapid expansion of solar generation across the footprint has also intensified evening ramping challenges and increased variability, reinforcing the need for enhanced forecasting tools and flexible operational capabilities.

These investments proved their worth during recent stressful events, including several storms in winter 2024-25. Lessons from these experiences have been integrated into procedures, modeling, and training, demonstrating MISO's commitment to continuous improvement and real-time learning.

WHAT'S NEXT – BUILDING FORESIGHT, AUTOMATION, AND AGILITY

Looking ahead, MISO is advancing toward an operations environment defined by foresight and automation. Next-generation forecasting tools will merge advanced meteorological data, load modeling, and renewable output analysis to improve visibility hours and days ahead. Increased automation of reserve deployment, congestion management, and communication protocols will further reduce response times and enhance consistency across regions. As more weather-responsive line ratings expand transfer capability, operators will have better tools to manage congestion and maintain

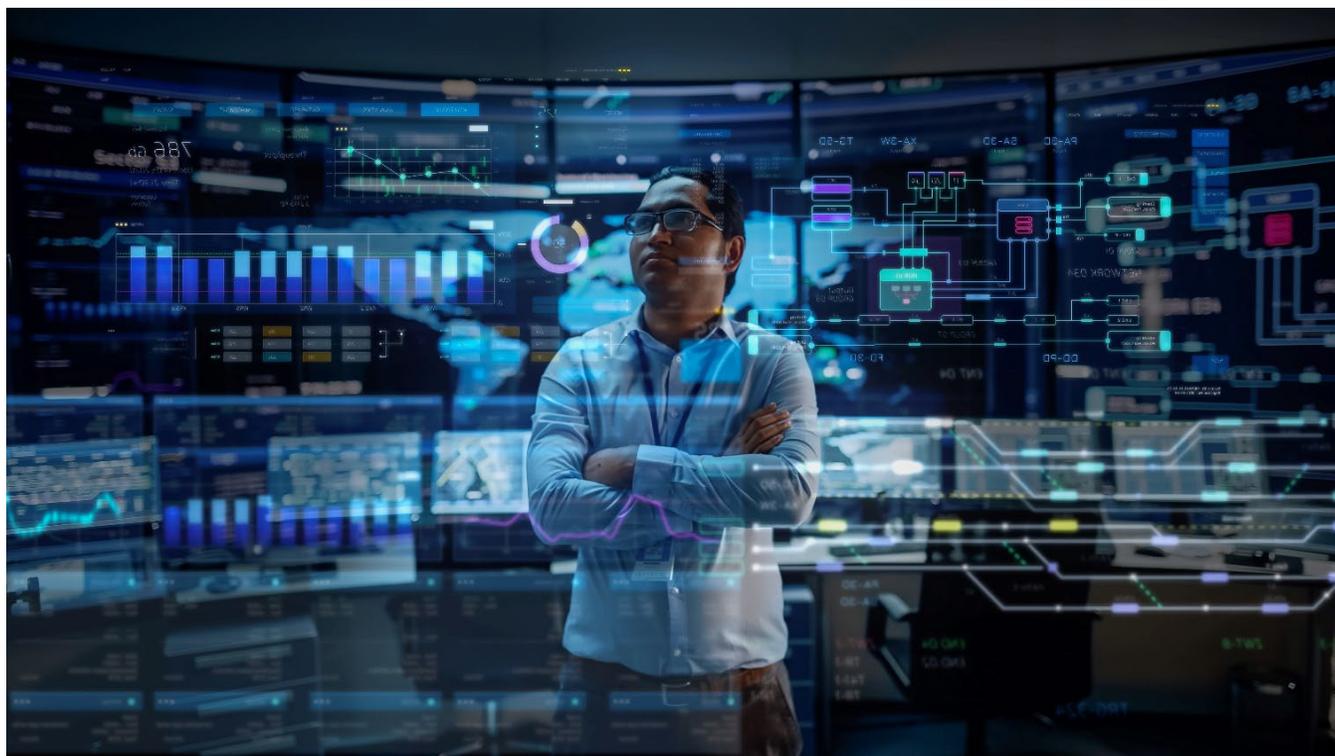


reliability during tight conditions. At the same time, new resources entering the system, particularly those with fast-ramping, flexible attributes, will provide operators with more options to manage rapid changes. These capabilities will become increasingly valuable as variability and uncertainty grow across seasons and hours of the day.

MISO is also expanding its approach to emergency preparedness. This includes more structured tabletop exercises, coordinated simulations, and clearer communication frameworks that bring together MISO, members, and state partners before extreme conditions occur. These efforts will help align assumptions, strengthen cross-functional roles during emergencies, and ensure that operators and member utilities have a shared understanding of system risks and response expectations. As large loads grow and risk windows shift, this collaborative preparedness work will become an increasingly important part of maintaining regional reliability.

MISO also continues to strengthen coordination between its market and operational systems, ensuring that decisions made in the day-ahead horizon reflect the same risks operators see in real time. Enhanced visualization and analytics will allow faster and more informed decisions.

Through these efforts, MISO is preparing the “control room of the future,” one where predictive analytics, automation, and human expertise work seamlessly together to support growing, localized large loads and a rapidly changing fleet. This integrated approach will ensure reliability in a system that is increasingly fast-moving, data-driven, and interdependent.





Pillar 3: Transmission Evolution

PLANNING AND BUILDING THE SYSTEM FOR WHAT COMES NEXT

Transmission Evolution is about keeping infrastructure in sync with the pace of change. Rapid load growth, a shifting generation mix, and the emergence of very large new loads demand a transmission network that is both forward-looking and reliable. This pillar focuses on designing and expanding the system to provide greater certainty around timing, system capability and cost so member resource and load plans can be executed reliably. Three strategic objectives guide the work:

- Design a transmission system to meet future demand and resource mix
- Enhance generation interconnections to meet member needs
- Prepare MISO and its members for the integration of very large loads on the grid

PROGRESS TO DATE – BUILDING FOR RELIABILITY, GROWTH AND SPEED

MISO and its members have made significant progress in strengthening the transmission system through regional, local, and interregional processes. The first two phases of Long Range Transmission Planning (LRTP) develop a robust regional backbone of more than 5,600 line miles to support load growth, improve transfer capability, and accommodate an evolving resource mix, enabling \$46-124 billion in net benefits. Transmission solutions approved since 2003 through the annual MISO Transmission Expansion Plan (MTEP) to address localized needs include more than 33,000 line miles of new and improved transmission. Refinements to cost-allocation frameworks, including updates to the Multi-Value Project approach, support equitable and transparent regional investment, while the MISO-SPP Joint Targeted Interconnection Queue (JTIQ) strengthens transmission at the seams and enables members' investment decisions for more timely, cost-effective interconnections.

An unprecedented number of requests for large load additions have been submitted through MISO's Expedited Project Review (EPR) process, which quickly studies and approves urgent transmission projects within about three months, far faster than the four to ten years typically required. Recent process improvements increase stakeholder engagement and allow MISO to study the projects more holistically to assess the cumulative impacts of large loads, supporting reliable and cost-effective integration.

Significant improvements have also been made to the generator interconnection process. To support immediate resource adequacy needs, the Expedited Resource Addition Study (ERAS) allows qualifying, commercially ready projects to move from study to interconnection agreement in 90 days rather than several years. By the end of 2025, ERAS attracted more than 30 GW across 51 projects, demonstrating its role as a practical tool for accelerating capacity additions needed.

MISO has faced an unprecedented interconnection queue backlog and long processing timeframes, but several factors have reduced both volume and study duration. Approximately 130 GW of projects – nearly half of the queue – have been withdrawn, in part due to changes to tax credits under One Big Beautiful Bill Act. MISO also implemented reforms, which included greater financial commitments,



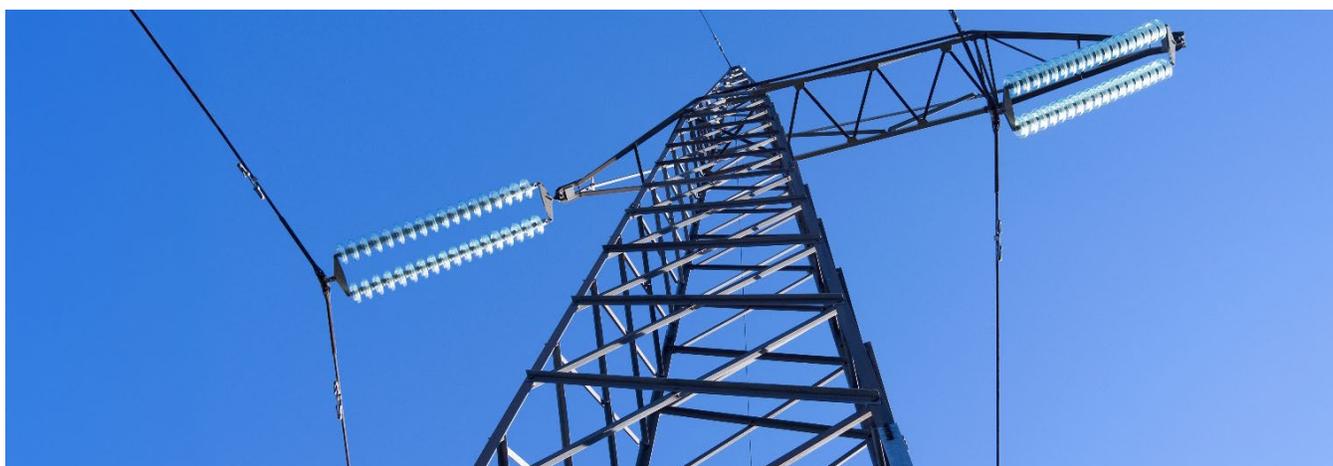
enhanced site-control requirements, and reduced speculative queue entry. These reforms resulted in modest improvements to the volume of interconnection requests, so MISO introduced a queue cap to limit applications in each cycle. Additionally, MISO considerably shortened queue times by automated early study phases through Suite of Unified Grid Analyses with Renewables (SUGAR™) software and redesigned the queue application portal to help streamline data collection and analysis. These efforts have helped MISO achieve more manageable queue volumes and move study timelines toward the target one-year timeframe while improving data quality and transparency for customers.

WHAT'S NEXT - PLANNING FOR THE GRID OF THE FUTURE

MISO's next phase of transmission work will focus on preparing the system for sustained load growth, a shifting generation mix, and increasingly localized reliability risks. Updated planning scenarios (Futures) will reflect industrial development, electrification, and data center expansion, and recent policy shifts that affect siting, timing and the technology mix. These scenarios will provide the foundation for LRTP studies and establish consistent system bookends to support long-term planning decisions by members and states.

Regional studies in the Midwest and the South will follow the tenets of the LRTP process, and analytical approaches may vary based on regional drivers. This flexibility also reveals opportunities for interregional projects that enhance system efficiency at the seams. MISO will continue working with PJM and SPP to support more adaptable interregional planning, building on recent studies that have identified reliability, economic, and transfer benefits across neighboring systems.

Accelerating generator interconnections and large load integrations remain a central priority. MISO is already enabling new generation and large loads through its ERAS and EPR processes and will continue refining its framework to enable timely and reliable integrations. MISO will identify solutions and new processes to address the velocity and volume of large loads for the long-term and during this transition period. Expanded automation across additional study phases, closer alignment with MTEP planning, and continued ERAS cycles (through its planned sunset no later than 2027), will help reduce queue timelines and manage the scale and pace of large load growth, while keeping reliability a priority.





Pillar 4: System Enhancements

MODERNIZING THE DIGITAL BACKBONE OF RELIABILITY

A reliable and resilient grid requires modern systems that are intelligent, secure, and adaptable. The System Enhancements pillar underpins every other element of the Reliability Imperative by advancing the digital, data, and cybersecurity capabilities that power MISO's markets and operations. The work focuses on three key priorities:

- Harness advanced analytics to elevate customer experience and improve business outcomes
- Leverage adaptable technology to accelerate solution delivery and drive product innovation
- Minimize cybersecurity and physical security risks to business continuity

PROGRESS TO DATE – MODERN SYSTEMS FOR A MODERN GRID

MISO has undertaken one of the most significant technology transformations in its history. Core market and operational systems have been upgraded with faster, modular platforms that improve forecasting, scheduling, and market clearing. These enhancements increase accuracy and computational power, enabling operators to manage complexity in real time. Foundational data governance has advanced in parallel, improving data quality, lineage, and stewardship so analytics, artificial intelligence (AI) and machine learning can be trusted at scale. These upgrades are built on the multi-year Market System Enhancements (MSE) program, which modernized core market engines, modeling tools and system-operational platforms. Together, these advancements are building the secure, data-driven foundation required for a rapidly changing energy landscape.

MISO is modernizing digital technologies in multiple areas to benefit stakeholders and members. These efforts include improvements to the interconnection queue and upgrades to demand response registration to support FERC Order 2222. In addition, MISO is transitioning to a new operator interface to update communication systems.

Emissions dashboards have also been launched, providing stakeholders with credible visibility into system emissions, including the industry's first ISO/RTO view of average consumed emissions and near real-time generated and marginal emissions. These tools leverage operational data to improve transparency around real-time market and operating conditions.

Cybersecurity and business-continuity efforts have advanced in parallel. By conducting member training and exercises, MISO is strengthening its resilience and using lessons learned from these real-world scenarios to enhance collaboration and communication with stakeholders and members. MISO now integrates "secure-by-design" principles into technology upgrades, strengthening defense against evolving cyber threats. Partnerships with federal and state agencies, along with ongoing control-room modernization, further bolster resilience.



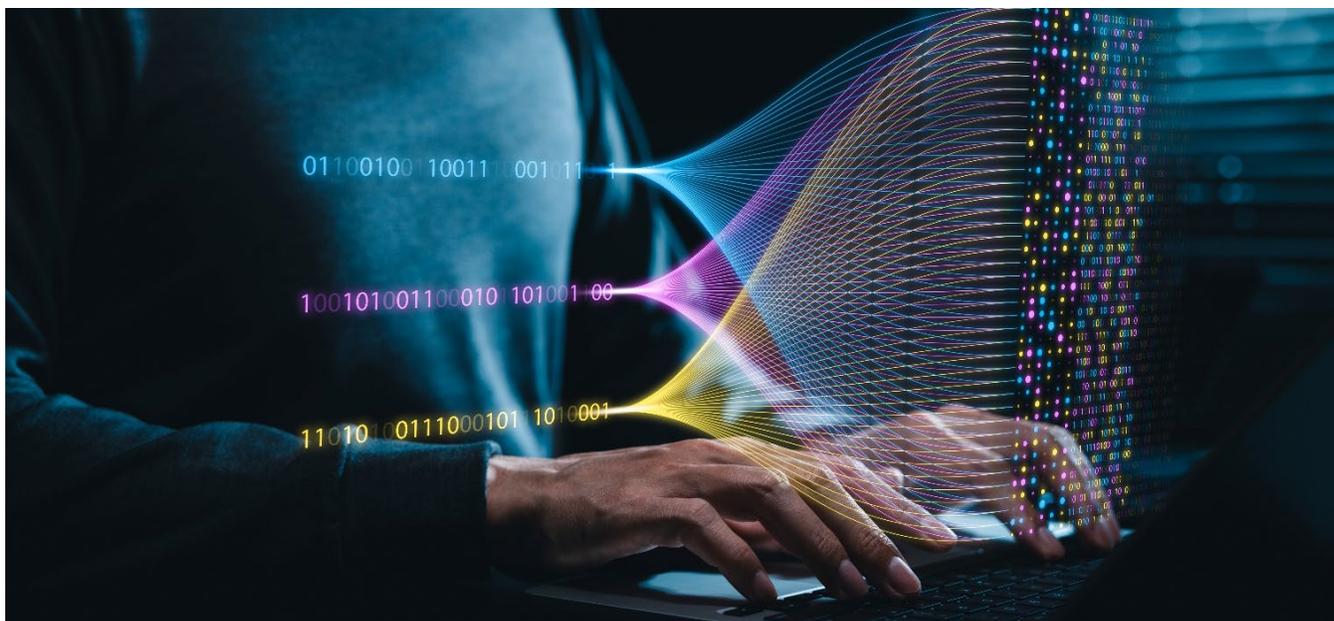
WHAT'S NEXT - BUILDING A SECURE AND SCALABLE DIGITAL FUTURE

Over the coming years, MISO will complete the modernization of its core systems and shift toward a fully modular, cloud-enabled architecture. This structure will allow technology to scale and adapt as markets, operations, and data demands grow. The final stages—next-generation commitment/dispatch and advanced modeling capabilities—will complete the core modernization by 2028, while control-room upgrades progress toward completion by 2030. Investments in next-generation analytics will bring together data from across MISO's business lines, transforming it into actionable intelligence for both internal users and external stakeholders.

MISO will also prioritize digital tools that enhance stakeholders' experience. MISO's Digital Technology team will be implementing a new market settlement system with modern, scalable cloud architecture. The system will also be faster, providing quicker calculations and processing studies at an accelerated pace.

Security will remain paramount. Ongoing improvements to network monitoring, identity and access management, and physical protection will safeguard operations while ensuring business continuity. Modernized control rooms will integrate advanced visualization, automation, and resilience features, creating secure, adaptive environments that support around-the-clock decision-making. These advancements will enable MISO to stay ahead of evolving threats by leveraging proactive defense strategies and resilient architecture to safeguard critical operations.

System Enhancements provide the backbone for every other pillar of the Reliability Imperative. By investing in flexible technology, advanced analytics, and secure systems, MISO is ensuring that the tools supporting the grid are as reliable and forward-looking as the grid itself.





How the Region Moves Forward Together

The MISO region is navigating a period of rapid and sustained change, with accelerating load growth, evolving resource portfolios, and more localized reliability risks. Meeting these challenges requires coordinated action across the region, grounded in shared foresight, aligned timelines, and disciplined execution.

Through the Reliability Imperative, MISO has aligned markets, operations, transmission planning, and technology to support this transition. MISO's strength lies in regional coordination and collaboration. States, utilities, market participants, and MISO each play distinct roles, but success depends on how effectively those roles align. By planning together, sharing assumptions, and coordinating across a diverse footprint, the region is better positioned to meet growing economic demand while sustaining reliable and affordable service.

THE REGIONAL MODEL AND MISO'S ROLE

MISO serves as the independent integrator of this regional model. It operates the transmission system, administers wholesale electricity markets, and provides a systemwide view of risk so members and states can make informed resource decisions. While MISO coordinates and operates the grid, it does not own generation or determine which resources are built or retired; those decisions remain with utilities, developers, and state regulators.

As a fuel- and policy-neutral operator, **MISO's focus is reliability**. Its responsibilities include:

- Exercising functional control of members' generation and transmission assets under FERC-approved Tariff authority to ensure reliable, efficient operations.
- Planning regional and interregional transmission to connect resources and loads, enable state and member choices, and balance local needs with broader system efficiency.
- Operating energy and ancillary services markets that send transparent price signals and promote efficient dispatch across the footprint.
- Establishing and administering resource adequacy requirements, including planning reserve margins, accreditation methods, and the Planning Resource Auction, to ensure sufficient accredited capacity in all seasons.
- Coordinating with members, regulators, and neighboring RTOs to align assumptions, timelines, and standards that directly affect regional reliability.

This partnership-based model is central to how the MISO region meets growing demand while managing risk. By integrating planning, markets, operations, and technology, MISO enables member plans to be executed reliably and cost-effectively within a shared regional framework. That coordination—grounded in transparency and collaboration—remains the defining strength of the MISO region as the grid continues to evolve.



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