

The 2025 MTEP report contains local transmission projects
with regional and interregional updates

MTEP25

TRANSMISSION PORTFOLIO

EXECUTIVE SUMMARY

Highlights

- 432 projects totaling 1,901 miles of transmission address local reliability needs
- Load growth is the largest driver, with transmission supporting 11.6 GW of load
- 49 urgent projects were approved through the Expedited Project Review process



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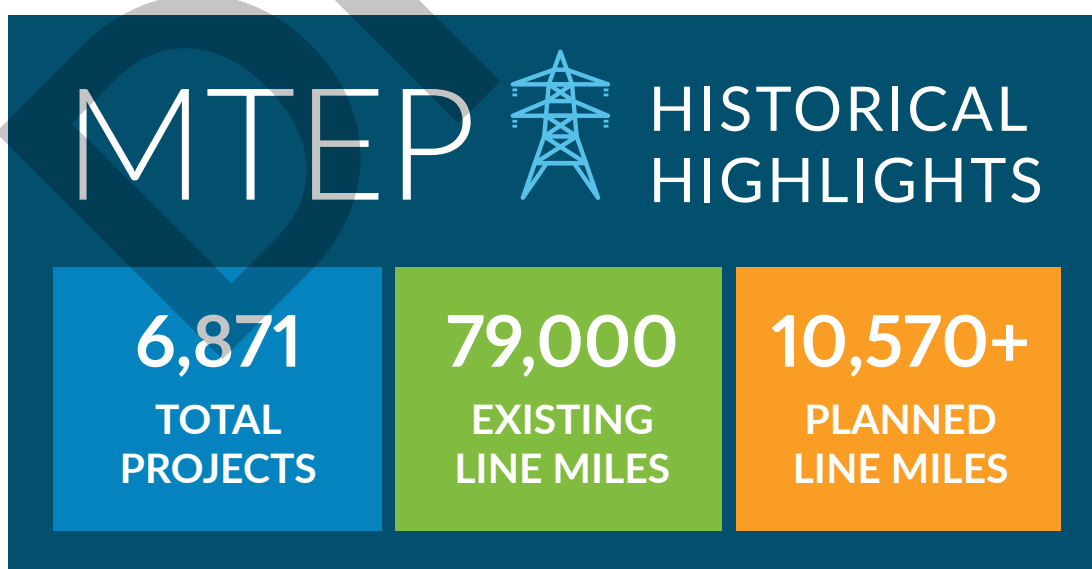
MTEP25 Executive Summary

The electricity sector is experiencing a wave of disruption unlike anything in its modern history. New technologies, shifting policies and surging demand from data centers, electrification, and industrial reshoring are fundamentally altering the landscape in which Regional Transmission Organizations operate. These disruptors are not gradually occurring — they are emerging simultaneously, at scale and with unprecedented speed.

For MISO, this means that traditional planning must evolve. The pace of change is outstripping legacy processes and the system must now adapt to a future that is more variable and more urgent than ever before. The convergence of large-scale load growth, generation retirements, and evolving federal and state policy expectations is driving the need to continue to enhance transmission planning.

MISO's role in this environment is to ensure that the transmission system remains reliable, resilient and responsive. With nearly 79,000 miles of high-voltage transmission lines spanning 15 states and Manitoba, Canada, MISO is responsible for delivering electricity to 45 million people in a way that supports both today's needs and tomorrow's aspirations.

The MISO Transmission Expansion Plan (MTEP) is the organization's primary tool for identifying and advancing the infrastructure needed to meet these challenges. Since 2003, MTEP has guided the approval of more than 6,800 total projects and upgraded or added nearly 79,000 miles of transmission projects, with over 10,000 miles of transmission line additions or improvements planned. These projects are the result of rigorous, transparent planning processes that engage stakeholders and align with evolving reliability, economic and policy goals.





As the pace of disruption accelerates, MISO is evolving its planning approach to ensure the grid can continue to meet and stay ahead of the disruption. That includes integrating long-term policy signals, improving coordination with neighboring Regional Transmission Organizations (RTO), creating a focused process for load-driven generation needs, and accelerating the timeline from issue identification to MISO Board approval and developer selection for projects driven by urgent needs. The annual MTEP report captures the full scope of these efforts and reflects MISO's commitment to proactive, forward-looking transmission planning.

MTEP is the result of a FERC-approved, Tariff-driven, transparent, and stakeholder-focused planning process. Each year, MISO evaluates proposed Transmission Owner projects, assesses system reliability needs, and ensures compliance with NERC standards. These traditional projects typically move from approval to operation within three to five years.

In addition to annual regional planning, MISO engages in interregional coordination with neighboring RTOs to address shared transmission challenges. These efforts are increasingly important as policy, weather patterns, and market changes drive cross-border impacts on reliability and resource adequacy.

MISO also conducts long-term, regional planning to address its members' plans and broader system shifts—such as large load integrations, resource goals, electrification trends, and the integration of variable energy resources. These projects can take more than ten years to develop and construct, and they are essential to ensuring the grid remains resilient and adaptable.

All of these efforts are captured in the annual MTEP report and associated transmission projects, which are reviewed and approved by MISO's Board of Directors. The report reflects MISO's commitment to proactive, data-driven planning that supports the evolving needs of the region's electricity consumers and market participants.

MTEP25 HIGHLIGHTS

432 projects

1,901 total transmission miles

11.6 GW of spot load additions

49 Expedited Project Review (EPR) requests

\$12.3 billion investment



MISO's Reliability Imperative and Transmission Evolution

The electric grid is undergoing a fundamental transformation driven by a combination of economic, technological, policy-related and weather factors. Widespread retirements of dispatchable resources, lower reserve margins, more frequent and severe weather events and increased reliance on weather-dependent resources and emergency-only resources altered the region's historic risk profile, creating risks in times that rarely posed challenges in the past. Now, change continues and additional challenges are emerging, such as large load additions. MISO's Reliability Imperative seeks to tackle these challenges. Specifically, efforts within the Transmission Evolution segment of the Reliability Imperative focus on transforming how MISO conducts system planning. These efforts are especially critical as the overall velocity of change continues to pose challenges that MISO and its members must address.



RESOURCE ADEQUACY RISK

The significant uncertainty in projected resource adequacy underscores the urgent need for continued focus by MISO, the states regulator agencies, and resource planners on accelerated resource additions, strategic retirement planning and proactive management of increasing load growth. Resource capacity margins are tightening throughout the region as large load additions are forecasted and realized, plans for resource retirements continue, the complexity involved in interconnecting new resources persists, and construction delays from supply chain issues continue. At least 3.1 GW of additional capacity beyond currently committed capacity will be needed to meet the projected planning reserve margin forecast for 2026.



MISO's current Queue includes more than 1,100 interconnection requests totaling more than 200 GW, which is a large volume at nearly twice MISO's summer peak load. However, efforts to reach a more manageable number of interconnection requests and improve early phase processing are producing results. MISO's Queue Cap was applied for the first time to the 2025 cycle, and as designed, is helping to achieve a manageable volume of interconnection requests. These improvements, combined with MISO's temporary Expedited Resource Addition Study (ERAS) process, are helping to more quickly add needed resources to the system. Between November 2024 and October 2025, 115 Generator Interconnection Agreements totaling 20 GW (nameplate capacity) were processed and approved. During the 2024 calendar year, 7.5 GW of nameplate capacity (3.0 GW of accredited capacity) moved to commercial operation. In 2025 to date, 6.6 GW of nameplate and 3.7 GW of accredited capacity has come online.

LARGE LOAD ADDITIONS

A spike in large, single-site load additions from data center developments and other electrification trends pose new challenges for the grid. To complicate matters, potential large new loads are not always fully reflected in Load Serving Entity forecasts which are critical for planning and operations, as they may move rapidly from conceptual to planned within a single planning cycle. As a result, MISO has refined its Expedited Project Review (EPR) process to reliably advance urgent transmission projects outside the standard MTEP cycle - with the increased use of this process a good indication of how quickly system needs are emerging.

POLICY CHANGES

Significant developments on the federal front are impacting the rate of change and have implications for both energy supply and demand. The One Big Beautiful Bill Act (OBBBA) was signed into law and included an accelerated end to Production Tax Credit and Investment Tax Credits for wind and solar resources. This change will likely contribute to further shifts in fleet plans, as the relative economics of resource types change. Additionally two retired nuclear plants in the MISO footprint are beginning the process to be repowered, with executive orders and policies having the potential to drive additional development of large plants and small modular reactors. Finally, the Department of Energy has begun to review and engage in plant retirements - with an order to delay the retirement of the Campbell coal plant in Michigan.

As MISO continues to respond to the Reliability Imperative, it will advance comprehensive planning studies, support urgent infrastructure development, and evolve its processes to ensure the grid remains reliable and resilient in the face of accelerating change.

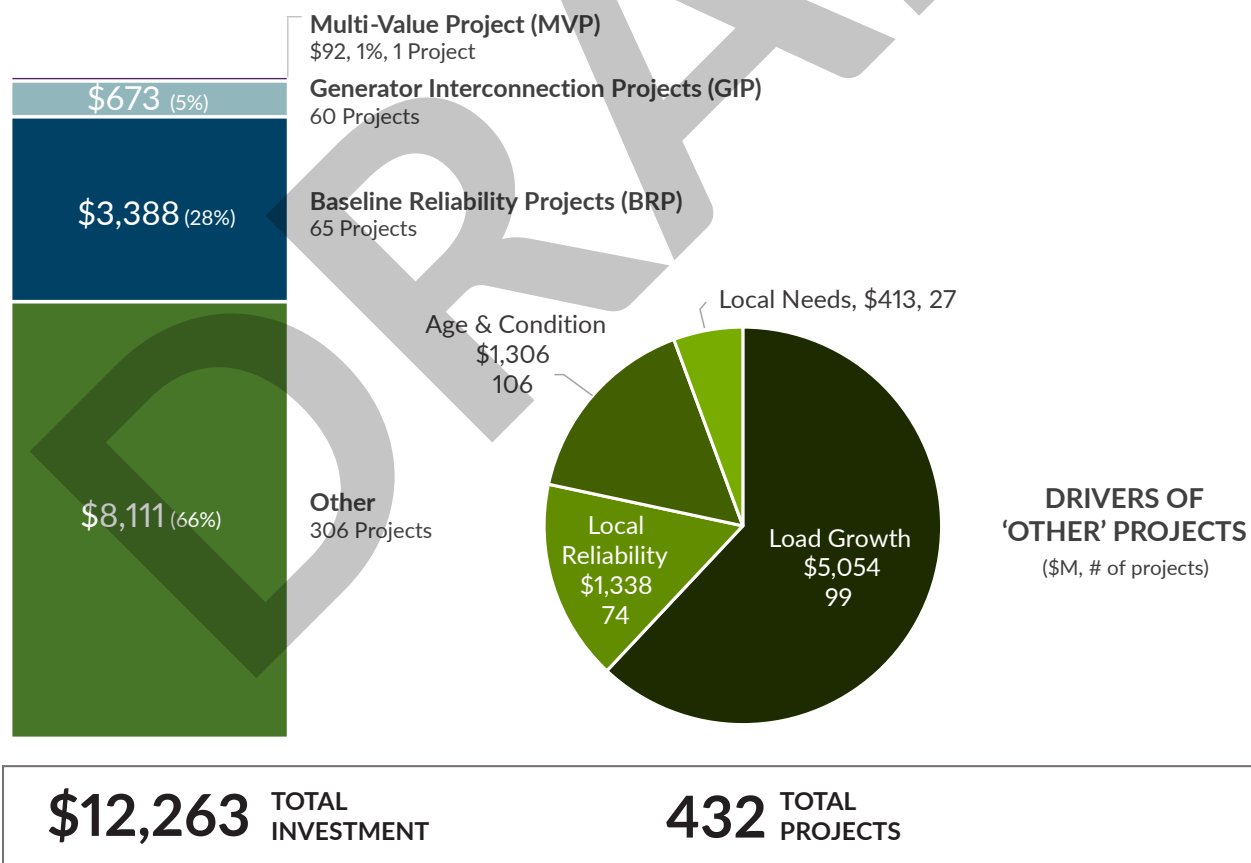


Local Planning

PROPOSED MTEP25 APPENDIX A PROJECTS ARE DRIVEN LARGELY BY LOAD GROWTH

MTEP25 Appendix A includes 432 projects which will improve nearly 2,000 line miles of transmission. Reliability, driven by load growth, is the biggest driver for MTEP25, accounting for 41% of the investment. MTEP25 also includes projects that support 11.6 GW of large load additions, most of which were submitted through the Expedited Project Review (EPR) process and underscore the urgent need for system investment related to large load additions. Seventy-three percent of local MTEP projects are expected to go into service within the next three years.

MTEP25 Appendix A Project Investment Summary
(Data as of October 24, 2025; \$M, % of total investment dollars)



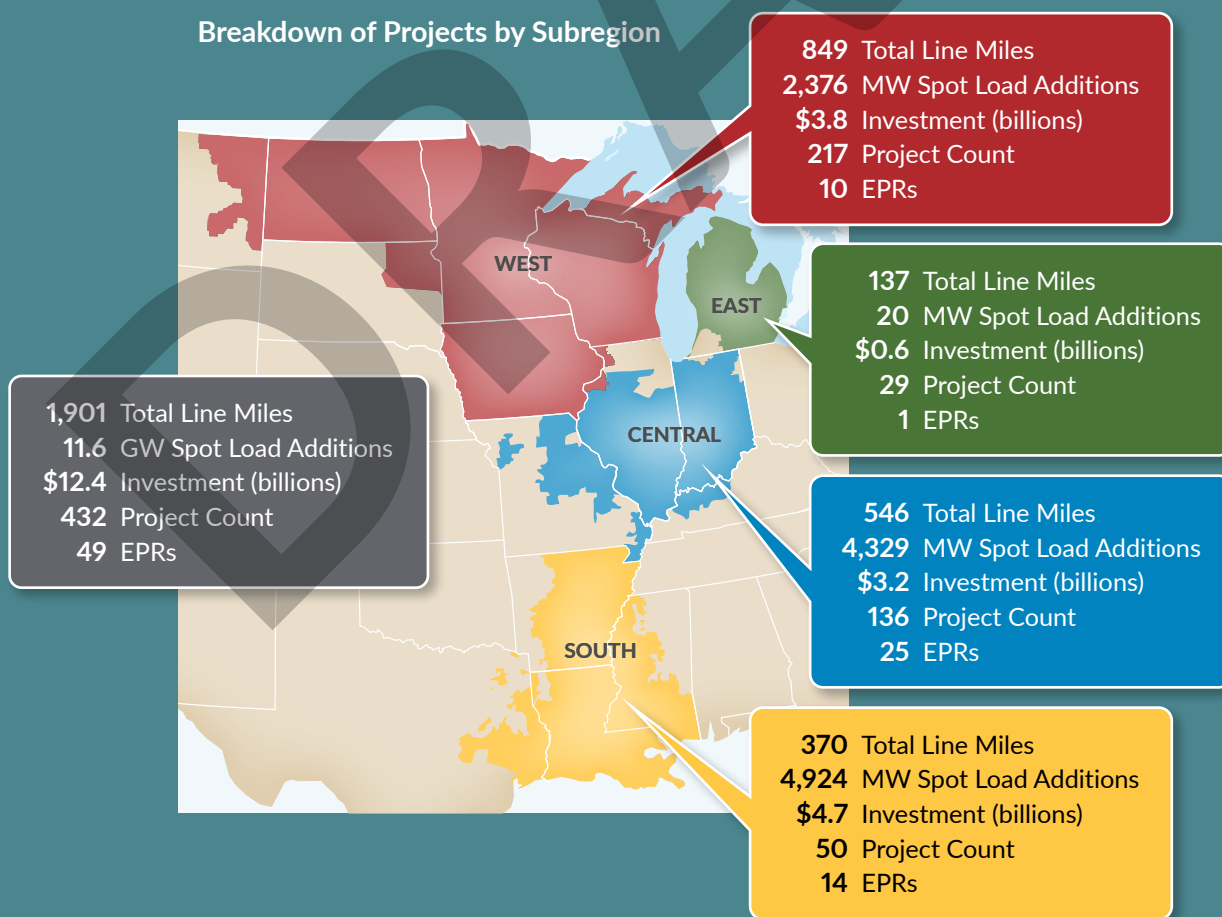


MTEP25 Appendix A Project Investment Summary

(Data as of October 24, 2025; \$M, % of total investment dollars)

Planning Region	Baseline Reliability Project (BRP)	Generator Interconnection Project (GIP)	Other Project	Multi-Value Project (MVP)	Total	# of Projects
Central	\$460	\$444	\$2,326	-	\$3,230	136
East	\$13	-	\$516	-	\$530	29
South	\$2,148	\$2	\$2,592	-	\$4,741	50
West	\$767	\$227	\$2,677	\$92	\$3,763	217
TOTAL	\$3,388	\$673	\$8,111	\$92	\$12,263	432

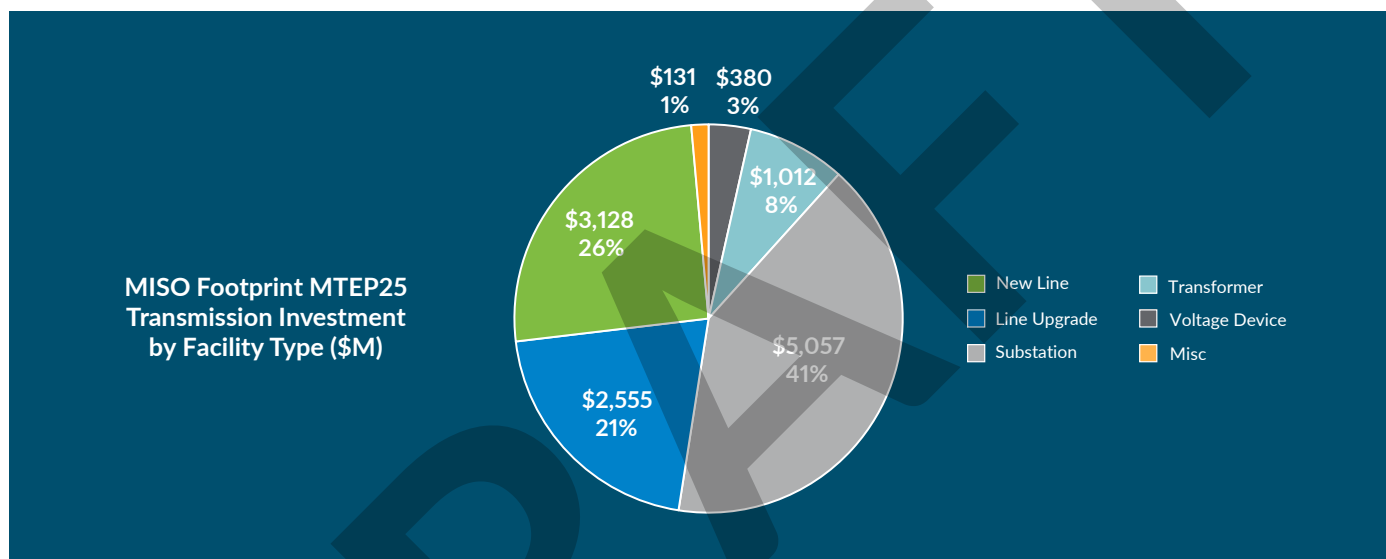
Breakdown of Projects by Subregion





PROJECT FACILITIES

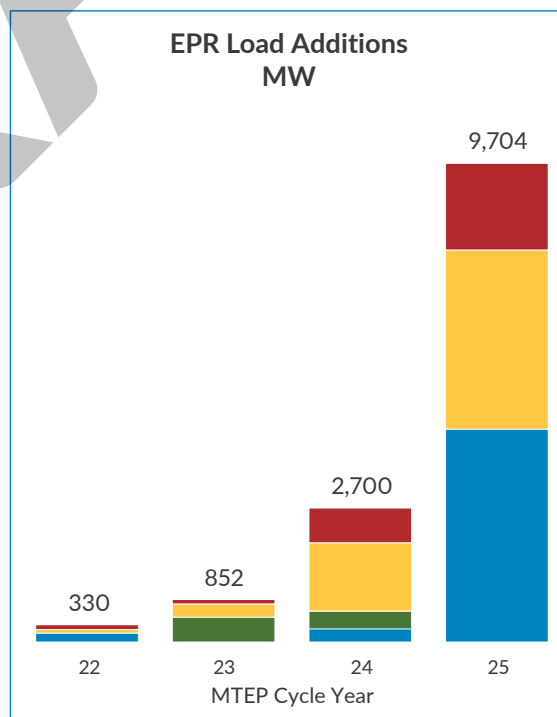
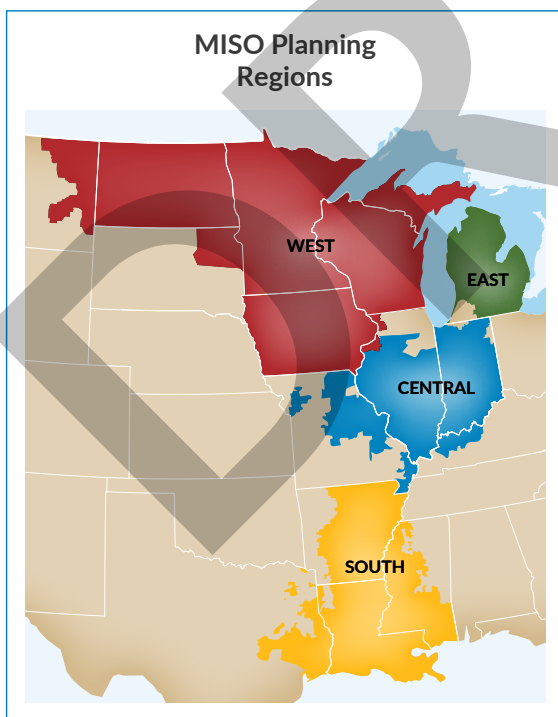
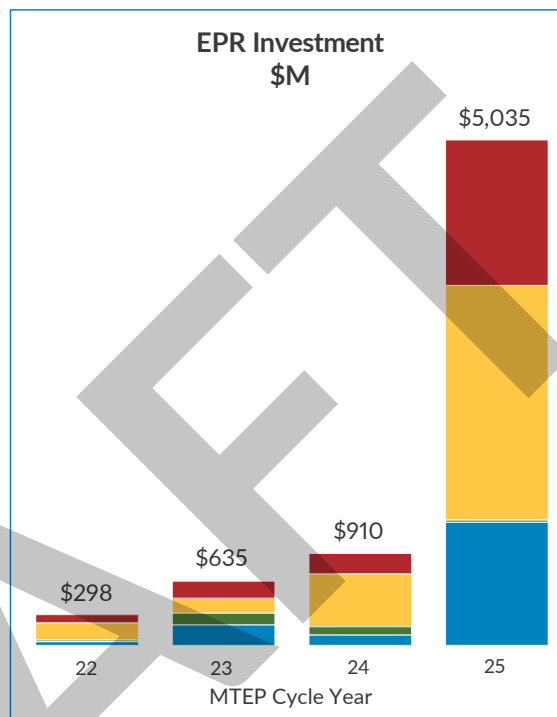
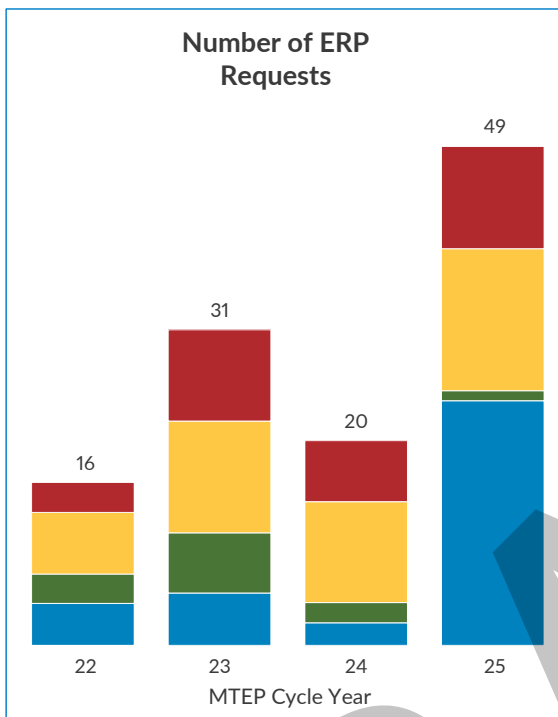
Each MTEP project is composed of one or more facilities. Forty-one percent of MTEP25 facility investment is dedicated to substation or switching station improvements related to construction and maintenance. This includes completely new substations as well as terminal equipment work, circuit breaker additions and replacements. Twenty-six percent is dedicated to new lines on new right-of-way in MISO. Twenty-one percent is dedicated to line upgrades which includes rebuilds, conversions, and relocations. The remaining 12% of facility costs are dedicated between voltage devices, transformers, and miscellaneous categories.



EXPEDITED PROJECT REVIEW REQUESTS

The volume of Expedited Project Review (EPR) requests continue to be driven by the accelerating new load growth trends, consistent with trends from previous MTEP cycles. Out of the 432 MTEP25 projects submitted in this cycle, MISO received and evaluated 49 EPRs accounting for 11.6 GW of load and \$5 billion investment. These projects move through a streamlined approval process because of immediate system needs, with process revisions being implemented to maintain the rigor and transparency of the analysis.

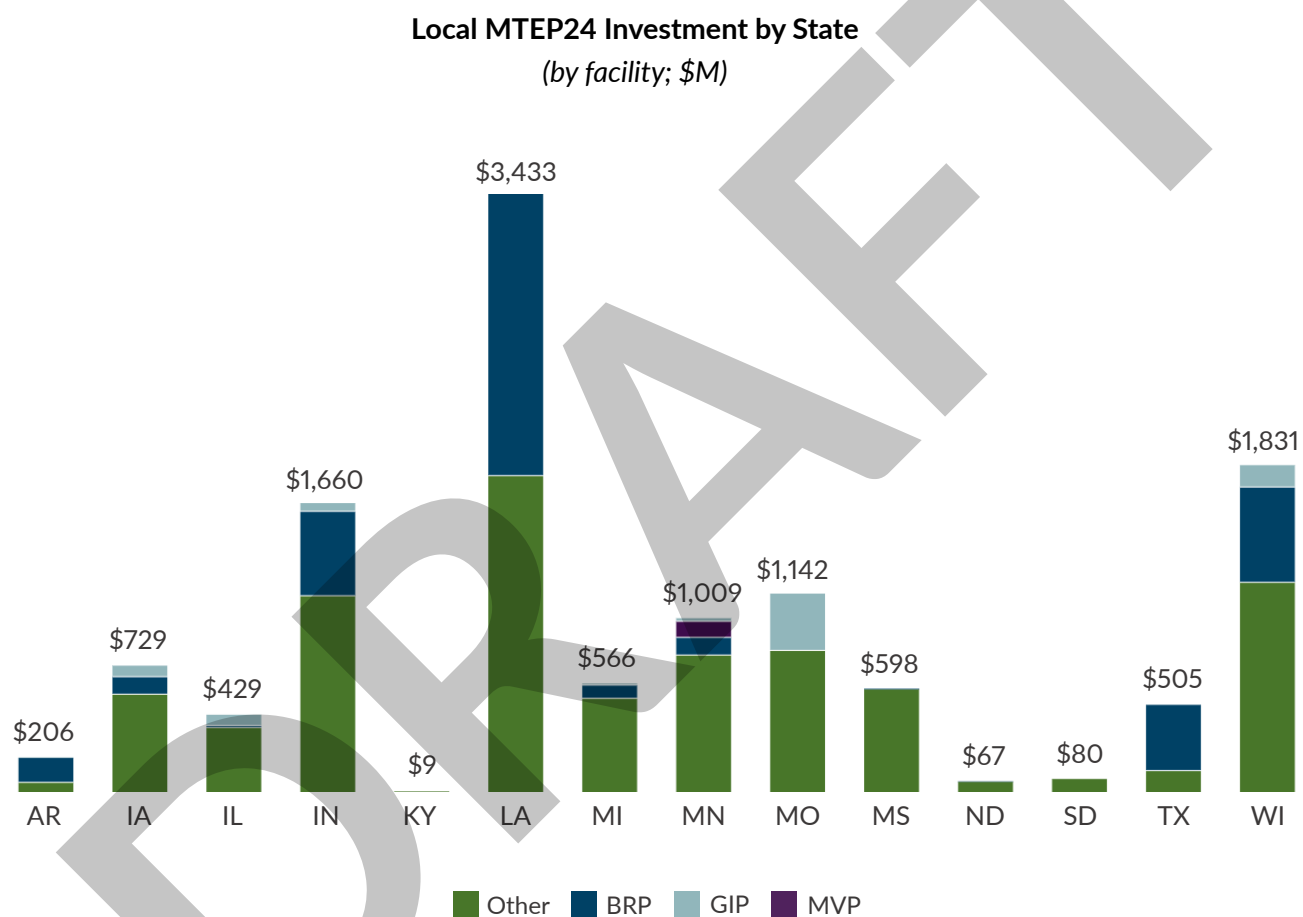
With increased EPRs and tighter timeframes needed for urgent needs, MISO worked with stakeholders on process revisions to help manage the influx of projects, while ensuring sufficient reviews and transparency. Instead of siloed studies, projects are now assessed through a broad study analysis, which is more representative of total load. Individual, one-off meetings for each project have also been replaced with regular monthly meetings that more efficiently discuss groups of projects. MISO continues to investigate additional process improvements to ensure large loads are reliably and efficiently connected to the transmission system, with improvements spanning the gamut from planning to operations.





INVESTMENT BY STATE

Geographic investment trends can differ greatly from year to year due to the varied age of infrastructure or as new load or generation additions require new transmission build. This year, investment at the facility level is spread across all subregions. This year shows the investment at a facility level with notably the largest investment in Louisiana.





TOP 10 PROJECTS

The top ten projects based on investment represent 44% of the total investment, with load growth and large load additions as key drivers. While these projects are located in three subregions, half of the top projects are located in the South. Additionally, 70% of the projects were also submitted through the Expedited Project Review process to urgently respond to emergent needs.

The large number of projects in the South Subregion is consistent with recent cycles and MISO continues to expect needs increase in response to reliability issues and load growth. These needs form the basis of the upcoming Louisiana focused LRTP South analysis, which will seek to proactive define future needs on the system, and this also illustrates the joint nature of regional and local planning, which work together to ensure the system can meet near-term issues and create a framework for long-term reliability and efficiency.

Rank	Project Name	Project Driver	Cost (millions)
1*	Cargas 500 kV and Smalling 500-230 kV Stations	Other - Load Growth	\$1,210
2	Babel to Webre 500 kV New Line	Baseline Reliability	\$1,066
3	Missouri Multi-Entity New Transmission (MoMENT) Project (Primary)	Other - Local Reliability	\$604
4*	Sarepta to Mount Olive 500 kV Project	Baseline Reliability	\$470
5*	Mill Road - Granville Project	Baseline Reliability	\$424
6*	Big Cedar Load Expansion	Other - Load Growth	\$381
7*	Upgrade LEAP Transmission Network Phase 2	Other - Local Reliability	\$345
8	Green Acres 500/230 kV New Substation	Other - Load Growth	\$312
9*	Racine County, DIC, Jupiter Substation	Other - Load Growth	\$295
10*	RiverPlex 500-230 kV Station	Other - Load Growth	\$284

Blanket renewal projects excluded from ranking

* Represents projects studied through Expedited Project Review (EPR) process



Regional Planning

L RTP ENABLES MISO MEMBER PLANS AND POLICY GOALS

Long Range Transmission Planning (LRTP) continues to be an important part of the Reliability Imperative's Transmission Evolution. Ultimately, the LRTP process identifies system needs driven by potential load and generation outlooks (represented by the Futures) and, as required, seeks to identify a least-regrets transmission buildout that improves the system's ability to effectively and efficiently move energy from where it is generated to where it is needed in all hours of the year. It is also intended to reliably enable member resources and load serving goals while minimizing the total cost of the fleet transition.

With a goal of approving transmission on a 'just in time' manner, where the transmission is approved just prior to beginning its regulatory and construction processes, prior Midwest LRTP processes have led to phases of new backbone transmission portfolios that will provide a wide range of value to support MISO member plans. In July 2022, the MISO Board of Directors approved the Tranche 1 portfolio focused on MISO's Midwest Subregion. The 18-project portfolio maximized usage of existing right-of-way, and will provide a 2.2 benefit-to-cost ratio for all MISO Midwest cost allocation zones through benefits that span a variety of value streams. In December 2024, the Tranche 2.1 portfolio was approved. It also addresses the MISO Midwest subregion, benefiting multiple states, MISO members and customers. The 24 project portfolio provides a benefit-to-cost ratio between 1.8 and 3.5, with each zone seeing benefits at least 1.2 times their costs.

PRIOR PORTFOLIOS

The changing landscape and emerging needs re-affirm the value and importance of prior-approved portfolios. These, and additional investments in regional transmission solutions will be required not only to support the evolving fleet, but also to support the load growth and new large loads that are forecasted. Significant, wide-ranging benefits can be delivered by these projects, including improved reliability, cost savings, and enabling economic development opportunities. MISO is confident its conservative approach to business case development, which focused on defining the reliability and congestion benefits of each project, then evaluating a subset of benefits that are known to be created by these types of solutions on the entire portfolio, was the correct approach.

Tranche 1: Most Tranche 1 projects are progressing in their regulatory approval processes and management does not have any significant concerns about in-service dates. Several projects have seen projected cost increases; MISO is in the process of evaluating these increases and conducting variance analysis to understand and react to the changes.

Tranche 2.1: MISO is supporting projects through regulatory processes and conducting the Competitive Transmission Administration (CTA) process to select applicable transmission developers according to the Request for Proposal (RFP) schedule, which extends through the fall of 2026. A developer was announced for the first of seven RFPs, and evaluation is underway for the next two RFPs.



NEXT STUDY FOCUS

In the next phases of LRTP, the “tranche” terminology is being retired as MISO shifts toward more regular LRTP planning in alignment with FERC Order 1920. To understand MISO’s approach for 2026 and beyond, it’s important to review emerging risks as well as the journey that led to our regional, long-term planning. MISO’s LRTP processes are the result of a journey of continued discussions that began in 2008 with the Regional Generation Outlet Study (RGOS). With a series of analyses, this study laid the foundation for regional planning based on the footprint at that time, the states in the Midwest. This study established the concepts and foundations of the process that MISO uses today to capture the value of a mix of regional and local generation sites, and broader reliability and economic benefits. It has resulted in the 2011 Multi-Value Project Portfolio followed by the response to FERC Order 1000, and then LRTP Tranches 1 and 2.1.

Beginning in 2026, MISO will concurrently conduct two separate LRTP studies. MISO will build on this history and progress in the Midwest and begin to establish a similar foundation in the South. Because of the continued load growth needs throughout the MISO footprint, and given recent operational conditions in the South Subregion, MISO will begin both studies in 2026. While each will follow the Tariff defined tenants of the Long Range Transmission Planning process in looking at what may be required to meet resource goals and support prospective load growth, the distinct needs of the subregions will result in varied study processes and outcomes.

In the Midwest, the MTEP26 LRTP analysis build on this foundation to evaluate system needs and potential solutions to support regional reliability, economic and member goals (including resource and load growth), using process steps similar and informed by improvements since 2011 MVP and LRTP Tranches 1 and 2.1.

A South LRTP study (formerly called Tranche 3) will begin to establish a foundation for a regional planning approach that considers the distinct needs of the South subregion while building on the progress made by South Transmission Owners in local planning in recent years. This approach will align with the Tariff framework and MISO’s planned compliance with FERC Order 1920; root drivers and analytical steps may vary due to the specific concerns of the local areas, as informed by stakeholder discussions. MISO will also incorporate specific risks around South-region load pockets into this study, with an anticipated focus on reliability and load growth for Louisiana. The goals will be to reach an understanding of issues that need to be addressed and identify potential transmission and generation options, especially within the load pockets, to guide next steps.

FUTURES REDESIGN

These next phases are contingent on the Futures redesign, which will provide an updated series of outlooks to bookend the uncertainty in potential system conditions (e.g., load and generation profiles) 20 years into the future. MISO staff have been working with stakeholders to redesign these scenarios, with core Futures expected at the end of 2025. These Futures will then be refined into early 2026 with resource adequacy analysis and to determine if any key questions create new scenarios to bookend future uncertainty. One key change in these futures will be the incorporation of the federal budget action of July (One Big Beautiful Bill Act or OBBBA) and its impacts on production and investment tax credits for new renewable generation.



Interregional Planning

Over the last several years, MISO has been focused on making interregional planning more adaptable and flexible to recognize emerging transmission opportunities and address risks between neighboring regions. Historically, the processes established to comply with FERC Order 1000 have resulted in limited investments between planning regions. In contrast, MISO's ongoing partnerships with PJM and SPP, respectively, to explore and test alternative approaches that address interregional needs seek to explore additional options for interregional planning, especially in light of new interregional planning requirements in FERC Order 1920. Though not complete, these studies have uncovered multiple reliability, economic and transfer opportunities between the different RTO systems and MISO is optimistic that it will chart flexible paths and long-term partnerships to identify and move value-add transmission forward.

MISO-PJM INTERREGIONAL TRANSFER CAPABILITY STUDY (ITCS)

PJM and MISO conducted an innovative transfer capability study, which identified reliability and economic needs using a common model with realistic long-term assumptions. The two RTOs identified several transfer-limiting facilities along the seam overlapping with reliability and economic needs. PJM and MISO will now collaborate with states and stakeholders to continue evaluating the proposed solution concepts from MISO's conceptual window and investigate pathways to advance solutions and integrate lessons learned into interregional 1920 compliance filings.

SPP-MISO 2024/25 COORDINATED SYSTEM PLAN (CSP) STUDY

The MISO-SPP study aims to identify transmission system enhancements to improve reliability and resilience in both MISO and SPP, while also enhancing transfer capability between the two systems - a broader scope than previous CSP studies. Under Tariff provisions, CSP requirements limit the benefit scope of projects, which MISO and SPP believe is too narrow to produce meaningful results. MISO and SPP are considering a FERC 205 filing to amend the Joint Operating Agreement (JOA), aiming to support the recommendation of projects with multiple benefits.



Looking Forward

Looking ahead to 2026 and beyond, MISO is committed to collaborating with stakeholders on both the core elements of traditional MTEP planning and the forward-looking initiatives that align with members resource plans, and policy objectives and evolving trends.

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