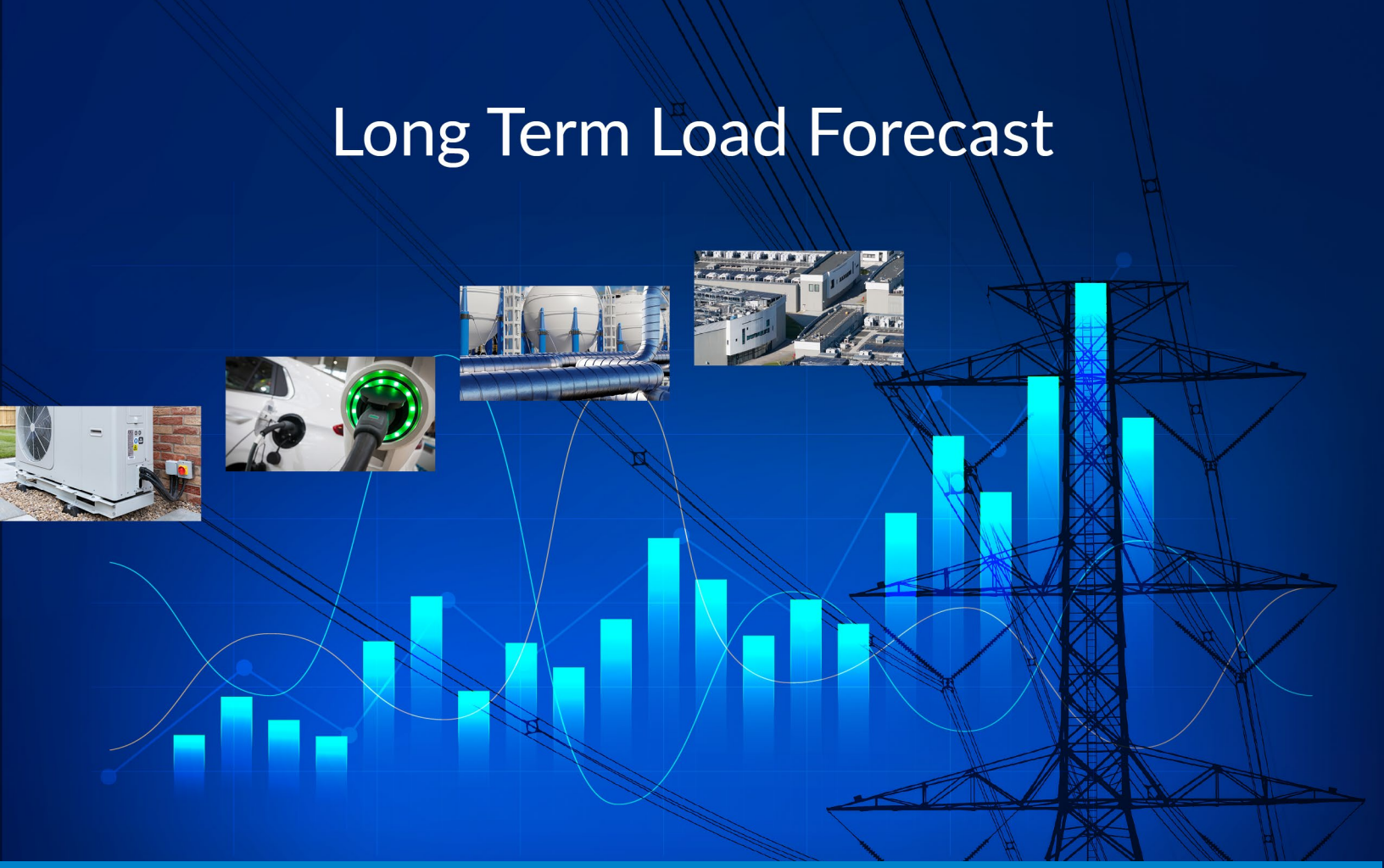
Long Term Load Forecast



May 2026

Highlights

- MISO projects its peak demand to grow from 124 GW in 2026 to 184 GW by 2046, a roughly 2% annual growth rate.
- Stakeholder forecasts show increasing load growth, with the latest resource adequacy submissions indicating a 2.1% annual increase through 2035—up from 1.6% in 2024—supported by insights from diverse data sources, including the 2025 LTLF Pilot Survey.
- Most of this growth is driven by rapid data center expansion supporting AI and digital services, along with increased manufacturing activity influenced by federal-related incentives.

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Executive Summary

The MISO region is undergoing rapid and continued transformation, with electricity demand now expected to exceed historic levels. As part of its Reliability Imperative, MISO continues to strengthen its long-term forecasting capabilities to better anticipate emerging risks and support strategic, system-wide decision-making.

The 2026 Long-Term Load Forecast (LTLF) reflects continued advancement in MISO's understanding and forecasting methodology and was developed to assess the impacts of evolving load drivers and policy changes on long-term load expectations. Overall load uncertainty is growing, primarily due to high rates of change of data center build-out. This build-out is driving a large increase in load expectations in the near-term, while creating a wide cone of uncertainty over the long term. The LTLF uses three trajectories to describe this expectation (Low, Current, and High) as seen in Figure 1.

Trajectories & Drivers of Demand (2026–2046 coincident peak CAGR):

- **Low Trajectory: 1.1%**
  Assumes modest load growth with slower realization rates for data center projects.
- **Current Trajectory: 2.0%**
  Reasonable load growth across key drivers, reflecting expected market, policy, and consumer trends in the MISO footprint, and aligns closely with near-term stakeholder submitted forecasts.
- **High Trajectory: 3.0%**
  Assumes aggressive data center and domestic conventional industrial buildouts, in addition to expanded growth in emerging industries, like semiconductor manufacturing and green hydrogen.

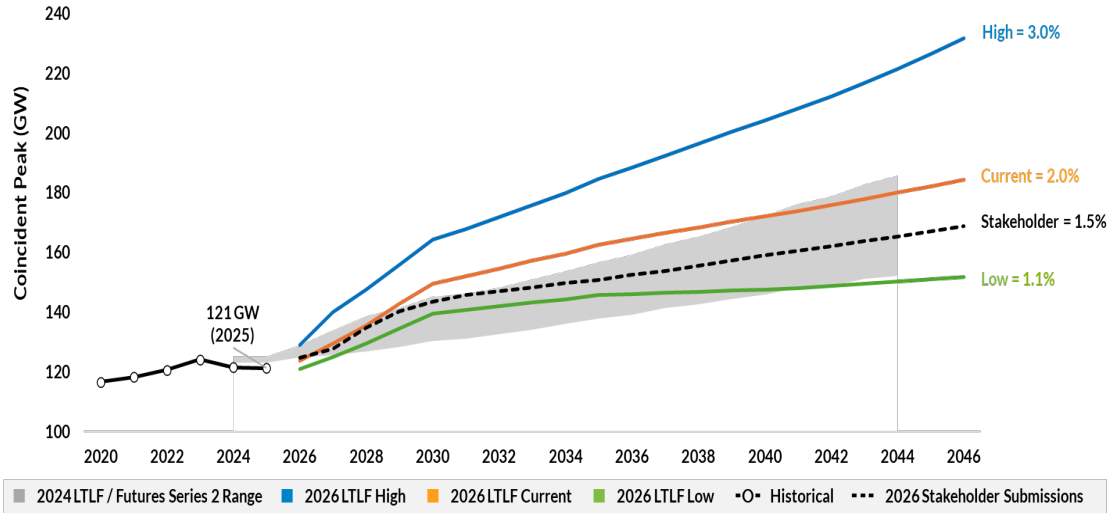


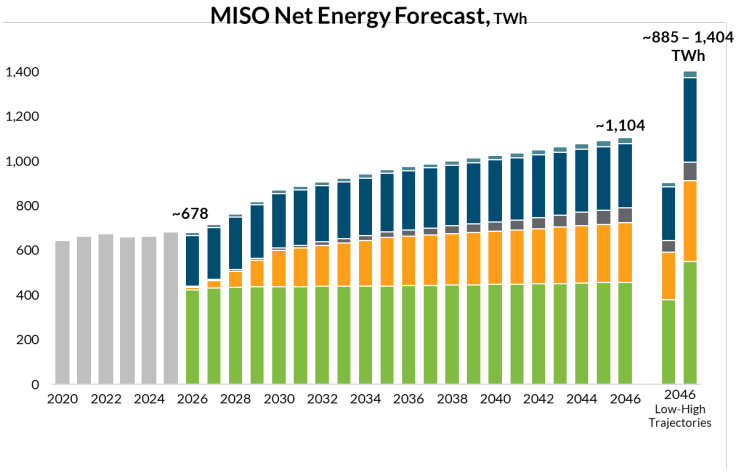
Figure 1: MISO's Net Coincident Peak Load Expectations Over Time (2020-2046)

MISO's Futures (long-term planning scenarios) remain the planning foundation for long-term decisions. The 2026 LTLF results affirm the directional assumptions in the Series 2 Futures, as the 20-year load outlook from the 2024 LTLF remains within the range projected in the 2026 LTLF. This Forecast also informed a Series 2 sensitivity, and the 2025 LTLF Pilot Survey data will support large-load siting for upcoming Long Range Transmission Planning (LRTP).

Since publishing the 2024 LTLF, the policy and economic landscape related to load has shifted considerably. Incentives introduced through the One Big Beautiful Bill Act (OBBBA), building on existing policy support from the Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act of 2022, are accelerating investment in computing infrastructure and large, high load factor facilities, while reducing support for transportation and building electrification, clean energy manufacturing, and green hydrogen development. As a result, the types, timing, and locations of new load additions are expected to evolve, reinforcing the need for forecasting approaches that capture the operational characteristics and geographic distribution of major new loads, and that result in a range of potential load outlooks. The breakdown in these load growth drivers are described in Figure 2.

Key Load Drivers (incremental annual energy by 2046):

The Forecast considers several factors outlined in the report and incorporates expected load additions from five key drivers.



	CAGR Low-High (2026-46)	Incremental Growth (TWh) Low-High (2026-46)
Emerging Industrial	0.3% - 3%	7 - 19
Conventional Manufacturing	2% - 5%	15 - 180
EV	12% - 15%	47 - 78
Data Centers	17.9% - 18.2%	188 - 348
Residential + Commercial	[-0.6%] - 1%	[-36] - 113

Figure 2: Driver Segmentation Based on Net Energy in Current Trajectory

MISO projects coincident peak load to grow from 124 GW in 2026 to 184 GW by 2046, representing a compound annual growth rate (CAGR) of approximately 2.0%. This marks a notable increase from the 1.6% CAGR reported in the 2024 Long-Term Load Forecast. Load growth is projected to vary across the footprint, shaped by regional variations in economic activity, regulatory environments, and infrastructure investment. By 2046, the most pronounced growth, ordered by magnitude, is expected in Local Resource Zones 6 (Indiana), 1 (Minnesota, North and South Dakota, Eastern Montana, Western Wisconsin, and Northern Iowa), 2 (Eastern Wisconsin),

and 9 (Louisiana and Eastern Texas), which are areas poised for large scale development of data centers, industrial expansions, and supporting infrastructure.

Accelerating large-load additions are reflected across multiple stakeholder processes and public announcements, including MECT load data submissions, MISO Transmission Expansion Plan (MTEP) project submissions and the 2025 LTLF Pilot Survey. MECT submissions, which are submitted by Load Serving Entities (LSEs), for 2026 indicate a 2.1% CAGR in expected coincident peak load growth from 2026–2036, up from 1.6% for 2024 through 2034. MISO's Expedited Project Review (EPR), which are submitted by Transmission Owners (TOs), requests have likewise surged, with total requested load rising from 3 GW in the 2024 MTEP study cycle to 19 GW in the 2026 cycle.

Introduction

Load forecasts are critical to MISO's core business functions, including transmission and financial planning, resource adequacy assessments, and broader risk-management activities across the 39 Local Balancing Authorities within MISO's Balancing Authority footprint. As the energy industry experiences transformative load growth driven by electrification and unprecedented economic development, it is increasingly critical to monitor and interpret evolving demand expectations. The results of this load forecast do not include the portion of Manitoba, Canada, that is within MISO's Reliability Coordination footprint.

Strong economic development, and emerging large scale, energy-intensive facilities such as hyperscale data centers are driving significant uncertainty in both the scale and timing of future demand, even as their long-term contribution to load growth becomes increasingly apparent. Evolving state and federal policies further influence these trends amid already tight reserve margins. These rapidly changing energy landscape dynamics further emphasize the need for sustained collaboration with stakeholders and continued investment in advanced forecasting capabilities, automation, and tools to better manage uncertainty during a period of substantial and uneven load growth.

Within this dynamic political, regulatory, and economic environment, scenario development has become an increasingly important component of long-term planning. It is more critical than ever to continually develop a range of scenarios for planning purposes, of which load forecasts are a vital component. These efforts allow MISO to prioritize initiatives under its Reliability Imperative — a shared commitment among MISO, electricity providers and states to address the region's urgent and complex reliability challenges.

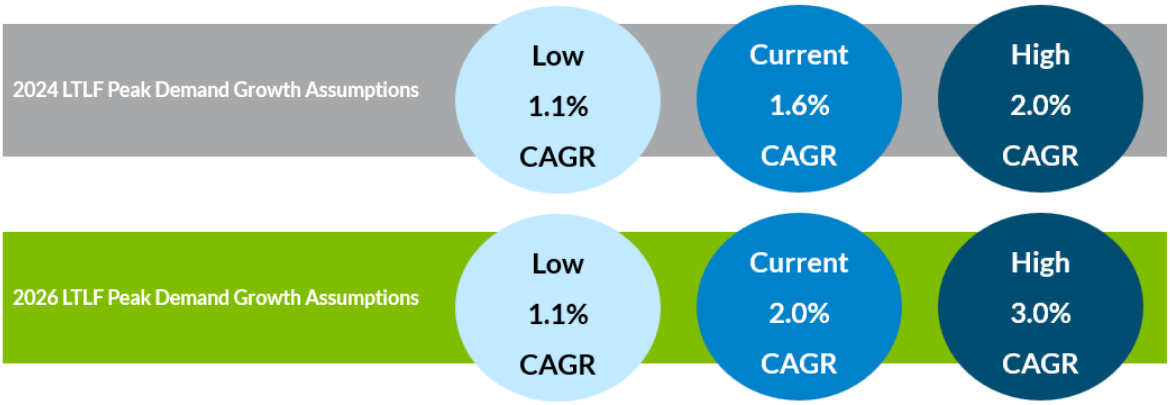


Figure 3: MISO's LTLF Peak Demand Growth Forecast

Since the last release of MISO's LTLF in December 2024, significant changes in federal policy have begun reshaping patterns of economic development, particularly for energy intensive facilities such as data centers. The rollback of key IRA financial incentives, combined with new OBBBA provisions, has shifted investment away from home electrification, electric vehicles, and distributed residential and commercial PV toward industry-focused tax incentives like the Advanced Manufacturing Investment Credit, driving more capital into semiconductor fabrication, advanced manufacturing, and other high-load commercial facilities. Federal initiatives including

the 2025 Artificial Intelligence (AI) Action Plan, which supports permitting advanced computing and data-center infrastructure, further reinforce this trend. At the same time, the accelerated expiration of incentives for electric vehicles, heat pumps, and other residential technologies is expected to moderate previously anticipated electrification related load growth, while the phase out of the Clean Hydrogen Production Credit may temper expansion in emerging clean hydrogen industries.

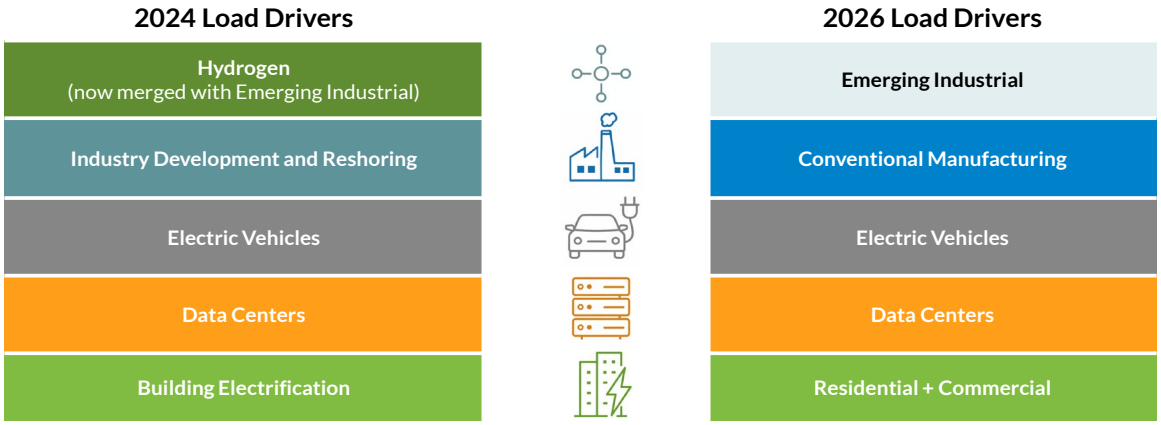


Figure 4: Evolution of Load Growth Drivers from 2024 to 2026

To enhance continuous monitoring and better capture emerging trends, MISO has updated its load-driver categories to reflect the evolving landscape of industrial activity and electrification-driven growth. Hydrogen has been consolidated into a broader Emerging Industrial category, which now also includes sectors such as solar, batteries, and semiconductors, previously part of Industry Development, Reshoring, and Conventional Manufacturing. Building Electrification has been incorporated into the Residential and Commercial segments. Electric Vehicles and Data Centers remain standalone categories due to their scale, distinct growth trajectories, and continued importance as major contributors to future load growth.

Driver	2024 LTLF Growth** Low-High (TWh) 2026-2044	2026 LTLF Growth* Low-High (TWh) 2026-2044	Key Drivers for Change
Data Center	140-222	181-336	Increase in data center additions from enhanced federal policy support.
Electric Vehicles	52-87	41-67	Delayed cost parity with ICE vehicles stemming from the rollback of the 2022 IRA.
Industry Development & Reshoring / Other Large Loads / Hydrogen	22-97	6-16	Greatly reduced or rescinded incentives for industries supported by the 2022 IRA, including green hydrogen.
Conventional Industry / Manufacturing	13-81	15-120	State-level incentives for industrial growth, and the reclassification of previously classified "new" industries as "conventional".
Building Electrification (Residential + Commercial)	36-47	(-32)-96	Reduced rollout of certain residential electrification technologies, like heat pumps, with expansion in the commercial segment.

Figure 5: Change in expected Segmented Energy Growth Increase from 2026-2044

As data centers and semiconductor facilities advance development plans across the MISO footprint, the resulting growth in high-demand loads is expected to raise the system's overall load

factor. This shift also increases system complexity, as many of these facilities are not likely to conform to MISO's overall operational profile.

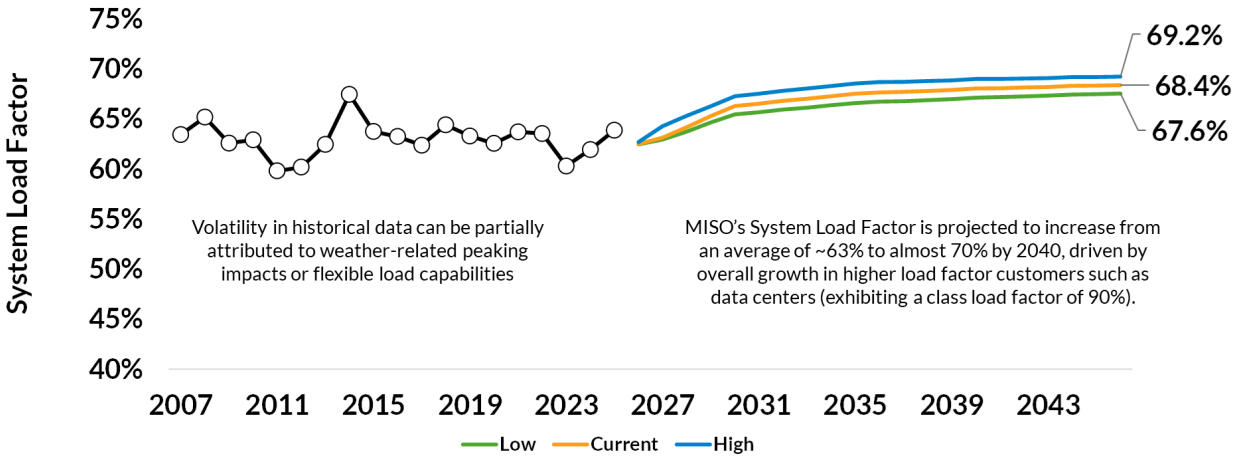


Figure 6: Forecast Range of MISO's System Load Factor Given Expected Penetration of Data Centers and Other Large Loads

In addition, recent federal policy shifts have reduced incentives and financing options for distributed energy resources and have prompted MISO to lower its DER outlook. The rollback of major tax credits, stricter qualification rules, and the cancellation of federal programs have created a less favorable environment for residential, commercial, and community scale DER adoption. Although residential and transportation driven load growth may slow, rising demand from industrial and digital infrastructure is expected to outweigh this shift, underscoring the need for continuous monitoring of emerging trends to support long term planning.

Forecast Accomplishments in 2026

Data Collection Enhancements

In response to stakeholder feedback from MISO's 2024 Long-Term Load Forecast (LTLF) workshop, which emphasized priorities such as expanding the use of stakeholder-provided data, incorporating geographically specific technology adoption rates, improving data center forecasting methods, increasing quantitative documentation, and clarifying roles for distributed energy resources, MISO has made meaningful progress in strengthening its long-term load forecasting framework.

A key area of advancement has been expanding and enhancing the data foundation that supports forecasting. MISO increased the use of stakeholder-provided information and evaluated the ability of members to supply more granular datasets, improving visibility into emerging large load trends. Complementary external data sources were also procured and integrated, broadening analytical capabilities and supporting a more comprehensive understanding of system-wide drivers. Additional process improvements include more systematic tracking of public announcements, refined confidence criteria from the 2025 LTLF Pilot Survey, and enhanced monitoring of MTEP spot load project submissions are helping distinguish high-certainty projects from speculative activity and better characterize potential system impacts.

A key enhancement shaped directly by stakeholder feedback was deeper incorporation of stakeholder data into the long-term load forecasting process. In September 2025, MISO launched a Long-Term Load Forecast Pilot specifically to assess stakeholders' readiness to provide 20-year monthly data and driver-level insights, particularly for rapidly growing segments such as data centers and industrial facilities. MISO received pilot survey submissions from 44 entities, representing approximately 80 percent of total system load. The 80 percent figure reflects the share of load served by the responding entities. While participation was strong, responses varied in completeness and interpretation, underscoring the need for clearer guidance, standardized practices, and continued collaboration. MISO will continue to work closely with stakeholders to incorporate data through more clearly defined requirements and to integrate more granular stakeholder-provided insights on distributed energy resource (DER) penetration, further strengthening the accuracy and responsiveness of its load forecasts.

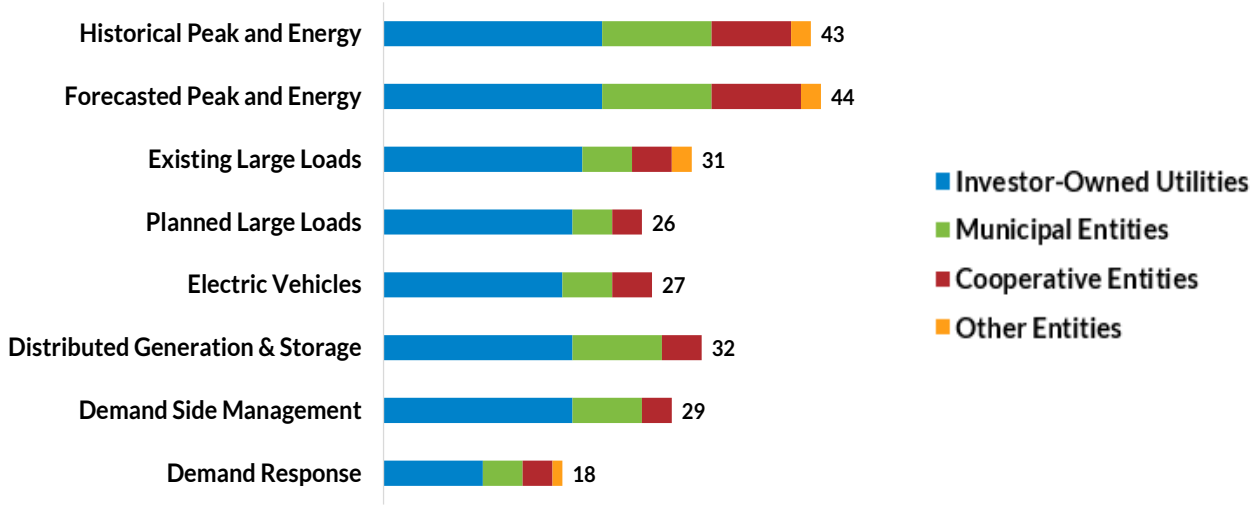


Figure 7: 2025 LTLF Pilot Survey Category Submissions by Stakeholder Type

Incorporation of Stakeholder Data

MISO has broadened and deepened the use of stakeholder insights by integrating more granular data into its modeling approach and establishing ranges around major energy drivers. These ranges reflect the spectrum of plausible load growth outcomes across the MISO footprint and help assess how policy and economic factors may influence demand. Stakeholder-submitted load growth continues to fall within the 2024 LTLF modeled ranges, and projected increases have not yet materialized, indicating that current Futures Series 2 assumptions remain reasonable and balanced.

To further improve accuracy, MISO is enhancing monitoring processes to track when planned facilities become operational and adjust forecasts accordingly. MISO will also evaluate how stakeholder load forecasts from the past five years compare to observed outcomes, refining future LTLF cycles to ensure stakeholder inputs more accurately reflect realized load patterns while capturing the full range of communicated growth drivers.

MISO continues to advance its modeling foundation through a statistically adjusted end-use model for residential, commercial, and industrial sectors, along with enhanced hourly shaping and allocation models that better capture daily and seasonal load timing. Geographic precision has

improved using GIS and census-tract-level population data, enabling stronger alignment between state- and regional-level drivers and localized demand. These assumptions are translated into long-term hourly forecasts informed by 19 years of historical LBA-level load data and a weather-week framework that groups similar historical weather patterns into representative weekly profiles to create normalized historical baselines. MISO also made key advancements in its 2026 hourly load-shaping capabilities, including the integration of EV charging profiles and data center load profiles. Together with a modular architecture that links top-down strategic drivers to bottom-up hourly load-shape forecasts and three scenario trajectories that capture a reasonable range of outcomes, these enhancements create a more transparent and spatially detailed forecasting foundation.

	Accomplishments	Planned Enhancements
Data Needs	✓ Assess stakeholders' ability to provide more granular data sets to better inform forecasts ✓ Procure and ingest external data sources to inform internal data analytical capabilities	• Document load requirements to drive more consistent stakeholder data collection and extend to longer-term horizon • Improve stakeholder data collection experience
Driver Penetration	✓ Improve large-load forecasting through MTEP enhancements, public announcement tracking, and confidence criteria introduced via the load-forecast pilot survey	• Strengthen forecasted vs actual deviances • Improve manufacturing segmentations • Incorporate weather-driven variability in non-conforming loads • Enhance visibility and forecasting for DERs • Enhanced visibility into data-centers with on-site generation
Modelling	✓ Establish a statistically adjusted end-use model for residential, commercial, and industrial segments ✓ Develop hourly shaping and allocation models ✓ Build a modular framework linking top-down strategic drivers with bottom-up hourly load-shape forecasting	• Automate modeling with integrated end-to-end validation • Strengthen geospatial allocation to improve locational accuracy • Establish an approach for modeling extreme-weather impacts • Refine the energy (TWh) modeling method • Enhance reporting capabilities

Figure 8: 2026 LTLF Accomplishments and Planned Process Enhancements

Planned Process Enhancements

While recent improvements represent meaningful progress, further advancements are needed to achieve an automated and resilient forecasting framework capable of supporting MISO's rapidly evolving system. Strengthening the stakeholder data collection process remains a priority. MISO will formalize and document data requirements, streamline the submission experience, and expand visibility into long-term load drivers that reflect a comprehensive range of emerging risks and opportunities. Improving forecast accuracy also requires deeper insight into the causes of load growth. Planned efforts include reducing forecast-to-actual deviations, refining manufacturing segmentations, and incorporating weather-driven variability in non-conforming loads. Historical load comparisons in Figure 10 show that, despite member forecasts over the past 5 years and 2024 LTLF, signaling varying magnitude of growth, the actual demand has remained flat. MISO plans to more closely monitor load growth, specifically as large loads become operational to improve forecasting capabilities.

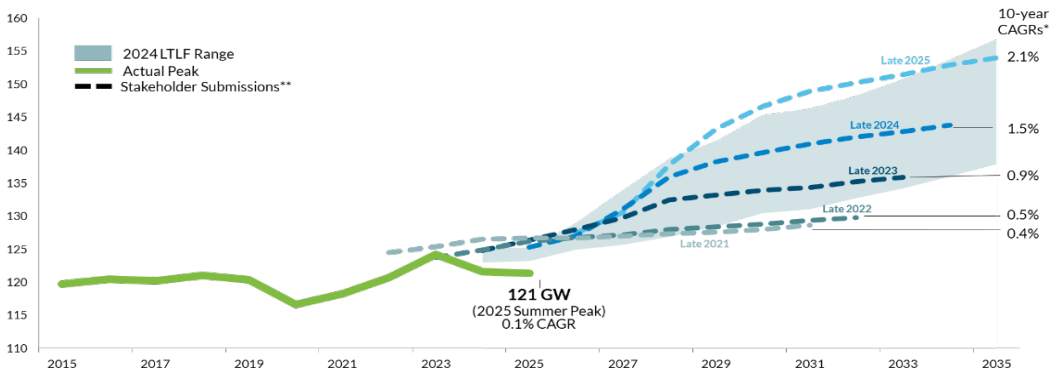


Figure 9: Stakeholder-Submitted Load Forecasts in Relation to MISO's 2024 Range of Forecast Scenarios

MISO is also advancing its modeling architecture to support a more robust, transparent, and scalable forecasting system. Key initiatives include automating end-to-end workflows with integrated validation, developing methods to capture extreme weather impacts, refining the energy modeling methodology, and strengthening reporting capabilities. Together, these enhancements represent the next phase of development needed to ensure that MISO's forecasting framework keeps pace with increasing uncertainty, emerging technologies, and the evolving energy landscape.

Summary of Load Forecast Results

The 2024 LTLF continues to anchor Futures Series 2. The 2026 LTLF reaffirms that the 2024 load forecast remains well-calibrated for long-term planning and primarily serves as a robustness check for Futures Series 2. Newly submitted MECT stakeholder load projections included in the 2026 LTLF remain fully within the 2024 load forecast modeled ranges. Similarly, both the 2026 low and current trajectories remain within and directionally consistent with the 2024 forecast range that underpins Futures Series 2. Only the high trajectory exceeds this range, reflecting assumptions of accelerated data center development through 2030 and stronger than historical conventional industrial growth. As such, the 2026 LTLF confirms that MISO's planning assumptions continue to fall within a reasonable and validated range.

MISO's long-term load forecast indicates steady growth in both annual energy consumption and peak demand, with substantial additions accumulating over the forecast horizon. The latest long-term forecast reinforces the urgency for speed-to-power, as near-term projections align with the continued rise in announced projects across MISO's footprint. It also illustrates a wider uncertainty range in the outer years, reflecting increased high-load factor additions and varying

electrification adoption rates in both energy and peak demand growth.

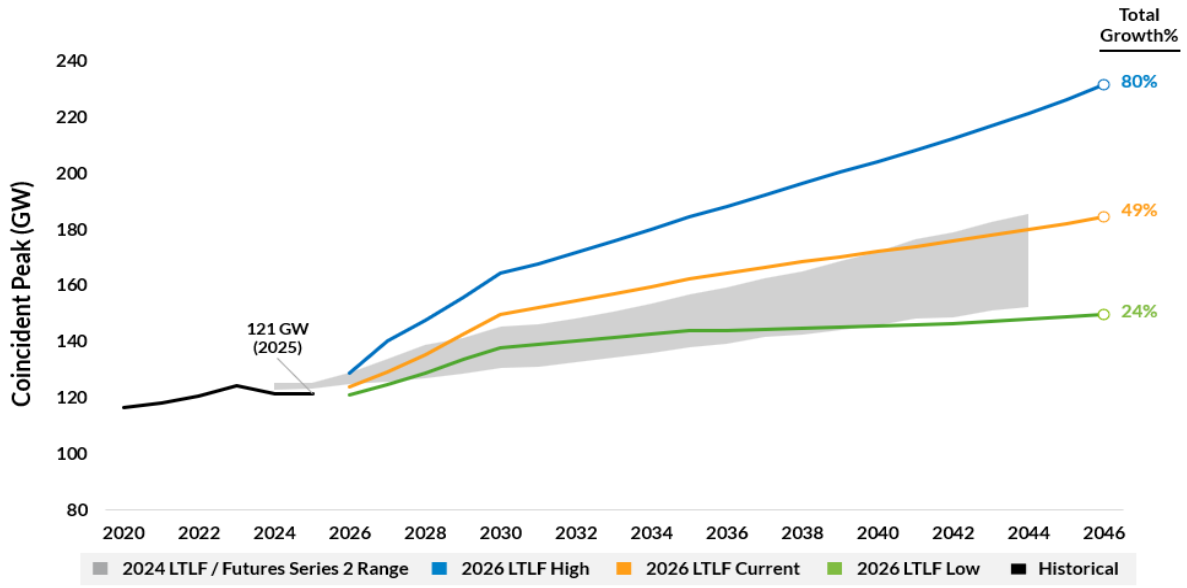


Figure 10: MISO Annual Net Coincident Peak Demand Forecast with Total Percent Change

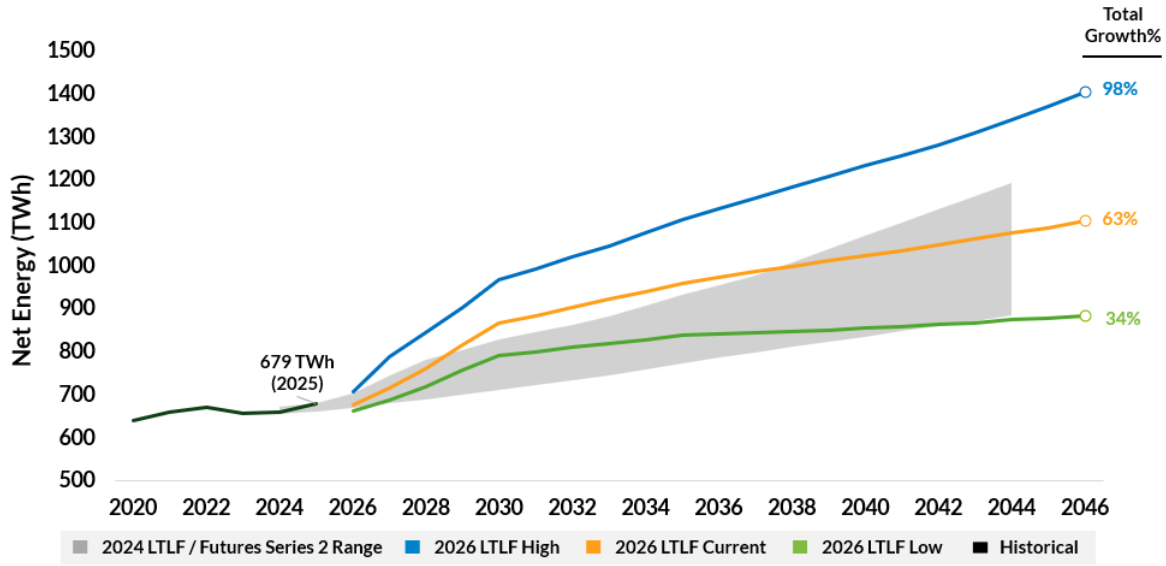


Figure 11: MISO Annual Net Energy Forecast with Total Percent Change

MISO System-Level Load Driver Insights – Current Trajectory



Data centers:

- Largest contributor to incremental growth, with energy use increasing from about 10 TWh today to 266 TWh by 2046 (up 257 TWh).
- Peak demand expands sharply, rising from 1 GW to approximately 34 GW.



Conventional manufacturing:

- Adds 60 TWh of energy demand, increasing from 228 TWh in 2026 to 288 TWh by 2046.
- Peak demand continues steady growth, rising from 36 GW to 45 GW.



Electric vehicles:

- Contribute an additional 62 TWh as consumption increases from 5 TWh to more than 67 TWh by 2046.
- Peak demand grows from 1 GW to 11 GW over the forecast period.



Residential and commercial:

- Adds approximately 34 TWh, reaching about 462 TWh by 2046.
- Peak demand rises gradually from 84 GW to roughly 90 GW by 2046.



Emerging industrial:

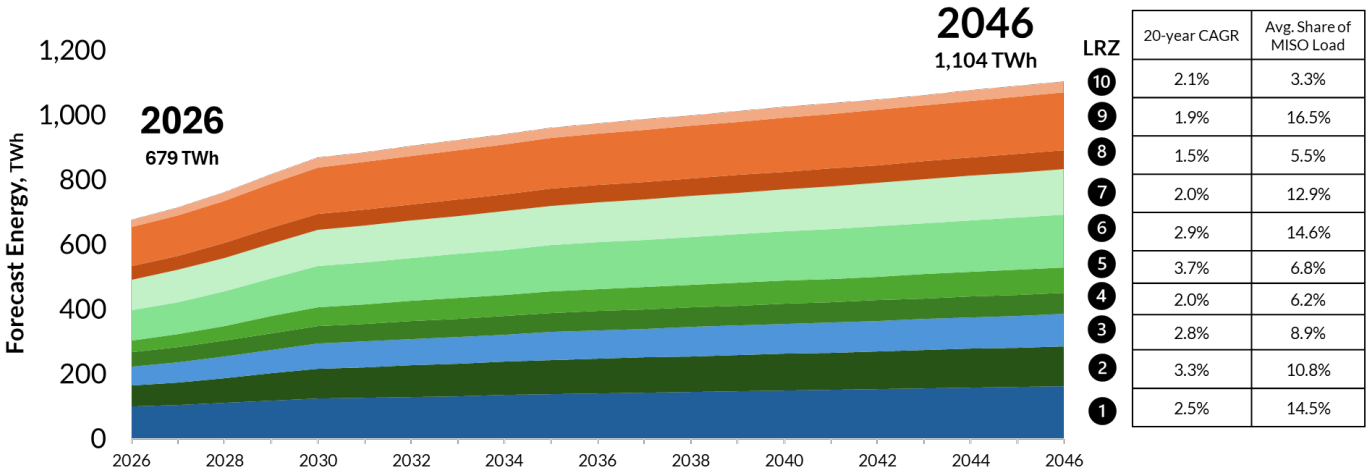
- Add about 14 TWh, rising from 12.5 TWh in 2026 to more than 26 TWh by 2046.
- Peak demand increases from 1.9 GW in 2026 to 3.8 GW in 2046.

Regional and Local Resource Zone (LRZ) Insights

At a regional level, projected load growth across MISO reflects the differing economic, geographic, and policy environments that shape where large new loads choose to locate. The Central region is expected to see particularly strong growth, driven by the availability of abundant low-cost land and industrial-focused incentive structures that are highly attractive to large hyperscale data center campuses. In the North region, growth is supported by a combination of state-level incentives, favorable zoning frameworks, and the efficiency advantages associated with colder climates, which can reduce cooling costs for energy-intensive facilities. Meanwhile, the South region is positioned for continued expansion due to competitive land costs, targeted economic development programs, and the emergence of expanding industrial corridors that create new siting opportunities for both digital infrastructure and traditional industrial load.

Building on these regional dynamics, more granular patterns emerge at the zonal level. Long-term load growth is expected to vary significantly across LRZs through 2046, reflecting differences in data center development, industrial expansion, and electric-vehicle adoption. Several zones show pronounced increases driven by concentrated data center development and sustained industrial activity, while others experience growth more heavily influenced by transportation electrification. Some LRZs exhibit comparatively moderate additions, reflecting more limited large-load development. Overall, the projected distribution of load growth indicates that the largest increases are concentrated in zones where digital infrastructure and industrial facilities are expanding most rapidly, with EV-related demand contributing smaller but widespread additions across the footprint. It is important to note, however, that incremental load growth alone does not

necessarily correspond to the highest rates of growth. Because LRZs vary substantially in their total existing load, a zone with a smaller base load can exhibit a high percentage growth even if its absolute incremental increase is modest, whereas a larger LRZ may add more energy in absolute terms but grow at a slower rate relative to its size.



LRZ	20-year CAGR	Avg. Share of MISO Load
10	2.1%	3.3%
9	1.9%	16.5%
8	1.5%	5.5%
7	2.0%	12.9%
6	2.9%	14.6%
5	3.7%	6.8%
4	2.0%	6.2%
3	2.8%	8.9%
2	3.3%	10.8%
1	2.5%	14.5%

Figure 12: Zonal Breakdown of MISO Current Trajectory with CAGRs and 20-Year Average Share of Total Forecast Load

Across both the 2024 LTLF and 2026 LTLF, several themes remain consistent in how load growth is expected to emerge across MISO's LRZs. LRZs 1 (Minnesota, North and South Dakota, Eastern Montana, and Western Wisconsin), 6 (Indiana), and 9 (Louisiana and Eastern Texas) continue to stand out as the highest-growth regions, driven by strong underlying factors such as data center development, electrification, and industrial activity. In both forecasts, data centers remain the dominant source of incremental demand, reflecting their large, high load-factor profiles and increasing geographic concentration. Electrification particularly from electric vehicles and building heating continues to play a major role in northern LRZs, especially LRZ 1 and LRZ 7 (Southern Michigan), where state-level incentives and supportive policies accelerate adoption. Overall, both LTLFs reinforce that regional differentiation remains central to understanding system growth, with outcomes shaped by policy environments, and zone-specific industrial, economic and technological developments.

The 2026 LTLF also exhibits some notable shifts in regional load growth patterns across MISO's footprint by 2046. LRZ 6 emerges as the leading hub for future data center development, supported by favorable conditions such as incentives aligned with heavy industry, including steel and aluminum manufacturing, as well as relatively abundant and affordable land. LRZ 2 (Eastern Wisconsin) shows a strengthened outlook as well, with hyperscale data centers increasingly drawn to the region due to supportive zoning frameworks and targeted state and local incentives.

In LRZ 1, transportation and building electrification become more prominent growth drivers, supported by Minnesota's decarbonization policies and expanding EV charging infrastructure, aimed at reducing carbon emissions, especially in and around the Minneapolis-Saint Paul area. LRZ 7 continues to benefit from EV adoption supported by the region's automotive sector and manufacturing base, with additional growth from transportation electrification driven by Michigan's policy commitments, expanding charging infrastructure, and continued activity in

conventional manufacturing. LRZ 9 shows a shift toward substantial growth from emerging industrial loads, driven by new large-scale facilities beyond data centers and consistent with recent public announcements, complementing earlier expectations around industrial electrification.

Additional growth is expected in LRZs 7, 5 (Missouri), and 4 (Illinois), where data center development is supported by land availability in rural areas and reinforcing manufacturing activity. LRZs 3 (Iowa and Southern Minnesota) and 5 also exhibit data centers as the primary source of incremental demand. In contrast, LRZs 4 (Illinois), 8 (Arkansas), and 10 (Mississippi) exhibit more modest growth over the forecast horizon, largely tied to announced data center projects without the broader mix of supporting drivers seen in other higher growth zones. Overall, the 2026 LTLF provides clearer differentiation across the footprint, highlighting both concentrated high-growth clusters and regions with more moderate, project-driven expansion.

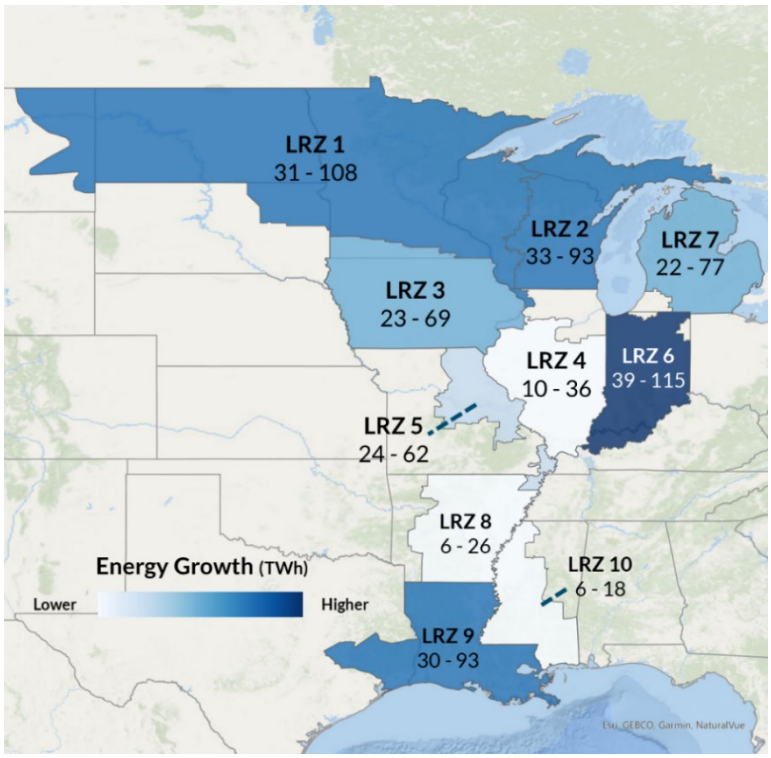


Figure 13: 2026-2046 Forecast Incremental Load Growth by MISO Local Resource Zones (LRZs): 2026-2046 – Low-High Ranges

Changing Load Driver Dynamics

MISO's 2026 Long-Term Load Forecast evaluates expected load growth across five primary drivers: data centers, conventional manufacturing, electric vehicles, residential and commercial demand, and emerging industrial sectors. The outlook indicates that data centers and conventional manufacturing will be the primary drivers of growth over the forecast horizon, reflecting strong demand for high-performance computing and advanced industrial activity. In contrast, expectations for transportation electrification, building electrification, and certain emerging industries such as green hydrogen are more moderate, in part due to evolving policy and economic conditions. To address uncertainty, MISO uses data-driven methods to establish a range of potential outcomes for each modeled driver. These ranges are intended to capture the spectrum of plausible load growth trajectories and to support analysis of how policy and economic factors may influence future demand across the footprint.

Data Centers

OUTLOOK

Driven by the rapid expansion of artificial intelligence, cloud-based digital architecture and streaming services, data centers are expected to contribute significantly to load growth over the forecast horizon.

- **By 2046, data centers are projected to add between 188-348 TWh of electricity demand; the most rapid growth is expected by 2030, with data center expansion adding 112-207 TWh of new load during this period.**
    - In the High Trajectory, data center projects are assigned an 80 percent realization rate. Industry expansion is assumed to proceed at roughly 6 percent annually from 2030 to 2035, tapering to 1.8 percent in the years that follow.
    - In the Low Trajectory, data center projects are assigned a 40 percent realization rate. Expected industry growth remains about 6 percent per year between 2030 and 2035, declining to 1.8 percent thereafter.

Relative to other RTO/ISO regions which have seen significant data center development in recent years, developers continue to identify MISO states as attractive locations for new energy-intensive facilities, due to land availability, renewable resource potential, and favorable economic conditions. In the last couple of years, MISO has observed a sharply rising pipeline of publicly announced data center developments. Given the already tight reserve margins, it remains critical for MISO to closely monitor how these projects materialize and adjust assumptions as new information becomes available.

- Over the past 24 months, MISO has anticipated 11 data center facilities to have come online, totaling 730 MW of demand. Additional phases of some of these facilities, including Applied Digital in LRZ 1 and Microsoft Ginger East in LRZ 3, remain under development and are expected to add further data center demand as they come online.

- Within the next 18–24 months, MISO is tracking 31 publicly announced data center projects, which are expected to contribute roughly 8–14 GW of potential data center additions, with many of these projects more than 250 MW per phase. Some notable data center projects include QTS Big Cedar in LRZ 3, Google Project Louie in LRZ 6, and AWS Madison County in LRZ 10.

Data Center Forecast Methodology

MISO's data center forecasting methodology uses a bottom-up assessment of anticipated development activity within the MISO footprint, supplemented by statements from public earnings calls and longer-term growth and technology assumptions to extend the forecast beyond the near-term project pipeline. The methodology estimates the timing and magnitude of data center peak load contributions and incorporates explicit assumptions related to project realization, phased build-out, and changes in computing efficiency.

MISO begins by compiling data center projects from MTEP submissions, public announcements, stakeholder submissions, and third-party sources (Landgate), capturing each project's expected load, location, and timing. Following a magnitude alignment with statements from quarterly earnings calls of several investor-owned utilities, these sources are cross-checked to avoid double counting, and the resulting aggregation forms the provisional data center load forecast.

When project timing is unknown, these projects are distributed evenly across 2026–2030 and phased in over four years. MISO then applies project realization rates or deratings, based on industry standard assumptions for data center attrition.

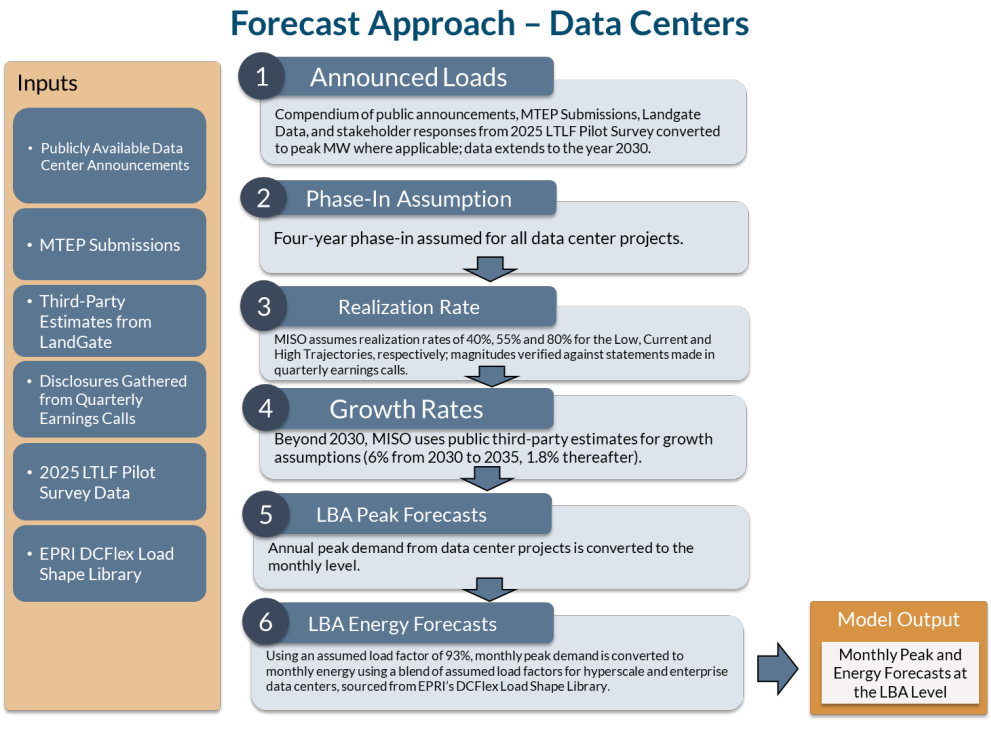


Figure 14: Summary Flowchart of MISO's Data Center Forecast Methodology

Accurately forecasting data center growth remains challenging due to limited visibility into developer plans, confidentiality constraints, phased construction schedules, and the lack of

reliable public information on expected load and operational timelines. These limitations become more pronounced beyond 2030, where announced projects and detailed pipeline information are scarce. To address this gap, MISO supplements available project-level data with a compendium of industrial research and observed growth rates from RTOs such as PJM and CAISO, which have more mature data center development patterns. Using these external benchmarks to extend the forecast beyond announced projects, MISO applies a 6 percent annual growth rate from 2030–2035 and then assumes a moderate 1.8 percent long-term growth rate that aligns with broader domestic economic expectations. The adjusted provisional loads are converted to peak demand using a 94 percent average load factor and then translated into monthly peak and energy values using industrial load profile shapes.

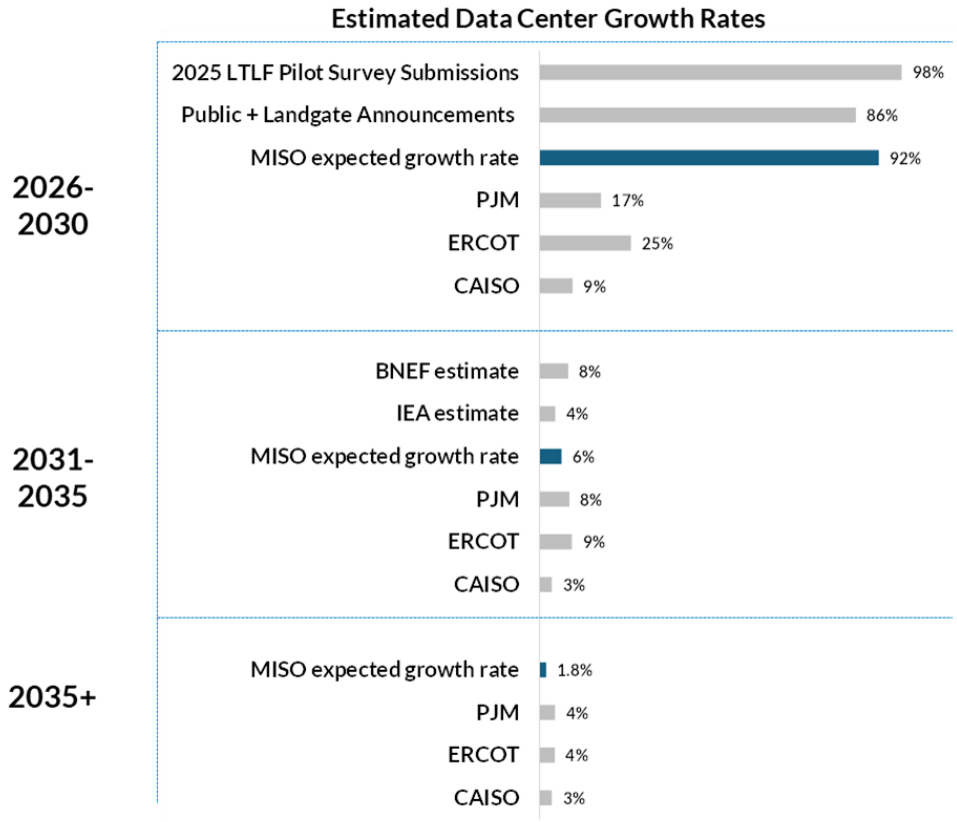


Figure 15: Estimated Future Rates of Data Center Growth by RTO/ISO

Conventional Manufacturing

OUTLOOK

Load growth from conventional manufacturing is expected to occur from capital expenditure-related tax incentives included in the OBBBA, and continued efforts to reshore domestic industries.

- **Conventional manufacturing is expected to add between 16-139 TWh of load growth by 2046; between 8-23 TWh of expected load growth from conventional manufacturing is expected to occur by 2030.**
    - In the High Trajectory, MISO applies a +5 percent adjustment to the Moody's year-over-year manufacturing growth rates, aligning the upper bound of the forecast with the higher end of historically observed manufacturing expansion across the MISO footprint.
    - In the Low Trajectory, MISO applies a (–5) percent adjustment to the Moody's year-over-year manufacturing growth rates, aligning the lower bound of the forecast with periods of weaker historical manufacturing growth.

The OBBBA provides tax incentives for capital expenditures that expand domestic commercial and industrial production, aligning with the administration's efforts to boost U.S. manufacturing capacity and strengthen supply-chain security. These incentives are expected to support incremental load growth by encouraging facility expansions, equipment upgrades, and new plant development across energy-intensive sectors such as metals, chemicals, and machinery, although near-term investment may be tempered by interest-rate and global-demand uncertainty. Within this environment, manufacturing load growth in MISO is projected to strengthen after years of relatively flat demand, contributing roughly 1.4 percent annual electricity growth through the 2040s. Results from MISO's 2025 LTLF Pilot Survey indicate that by 2044, MISO stakeholders will add up to 7 GW of manufacturing or other large load projects. Competitive Midwest costs, reshoring efforts, tariffs, and supply-chain priorities continue to drive new industrial development across the footprint. However, growth remains uneven and subject to policy changes and project realization risks. Overall, manufacturing is positioned to be a meaningful contributor to long-term load growth in MISO, complemented by faster-growing sectors such as data centers.

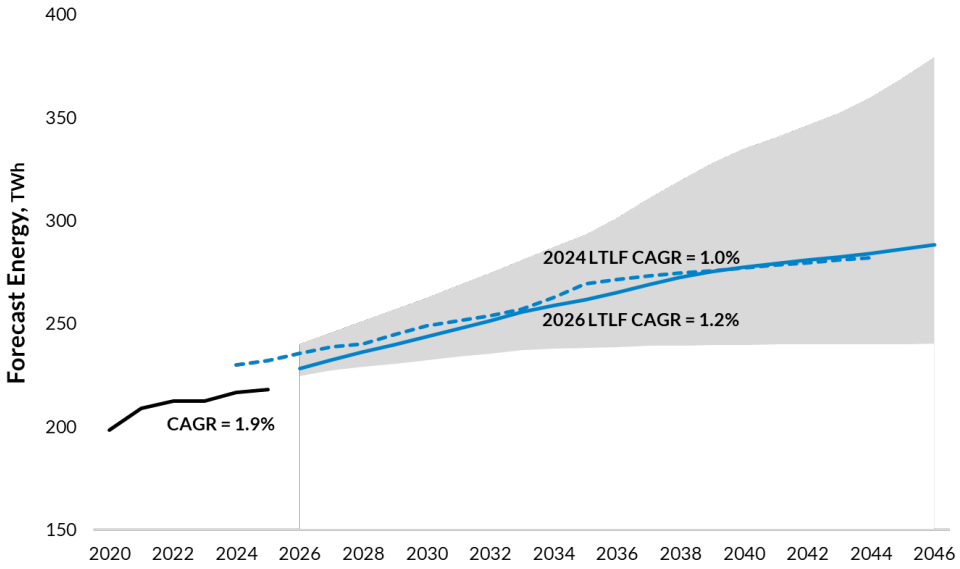


Figure 16: Forecast Energy from Conventional Manufacturing

Conventional Manufacturing Forecast Methodology

MISO developed its forecast of conventional manufacturing energy demand using a data-driven methodology that combines historical industrial energy consumption data with state-level economic growth projections. The approach leverages research prepared through MISO's engagement with Purdue University's State Utility Forecasting Group, information from the U.S. Energy Information Administration (EIA), and third-party economic forecasts from Moody's to produce load balancing authority (LBA) specific projections. MISO sought to incorporate stakeholder submissions, particularly those from its 2025 LTLF Survey, but encountered limited participation in providing locational or otherwise identifiable information related to existing manufacturing facilities; accordingly, it will evaluate how to obtain more robust supporting information on this driver going forward.

MISO's conventional manufacturing forecast begins with state-level manufacturing and mining energy consumption from the EIA's Manufacturing Energy Consumption Survey, compiled by the State Utility Forecasting Group, to establish 2022 baselines. These values are grown using state-specific real gross state product projections from Moody's, allocated to the MISO footprint, and then distributed to LBAs through MISO's GIS allocation methodology. Adjustments for capacities from individual projects in the Emerging Industries category are made to avoid double-counting. Monthly energy shares are developed using state-level industrial electricity sales data and allocated to LBAs in the same manner. Monthly peak load contributions are derived by applying these shares to annual LBA energy forecasts and converting monthly energy to peak demand using an assumed 83 percent load factor.

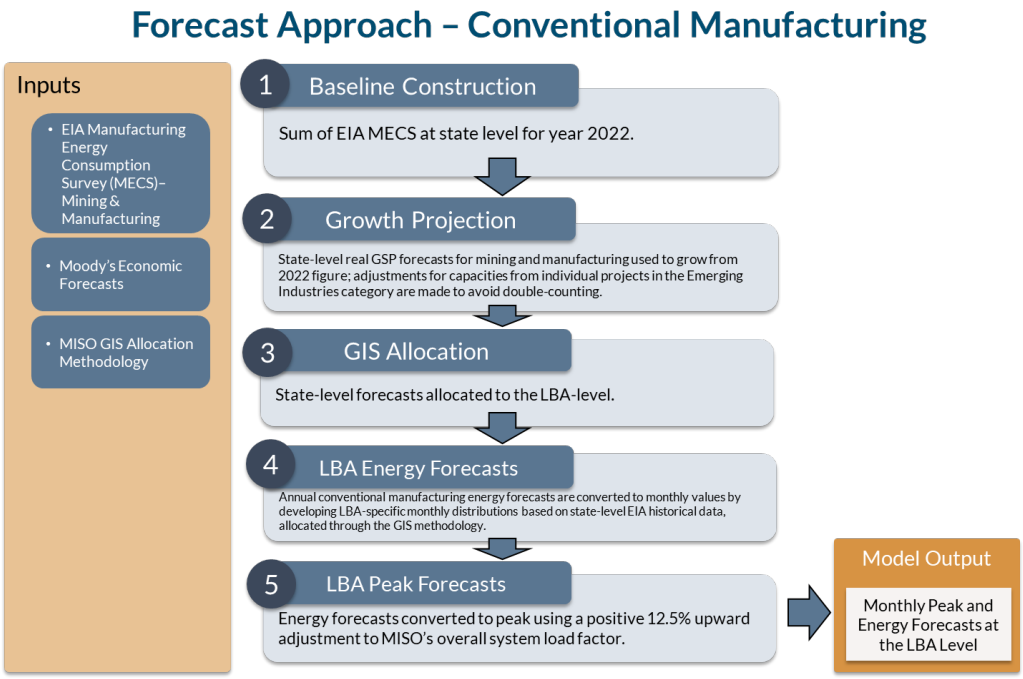


Figure 17: Summary Flowchart of MISO's Conventional Manufacturing Forecast Methodology

Electric Vehicles

OUTLOOK

The accelerated phaseout of IRA tax incentives is expected to dampen electric vehicle adoption relative to MISO's prior load forecast; however, EVs are still projected to drive incremental load growth, with the largest effects concentrated in states with comparatively high market penetration.

- **Electric vehicles are expected to add between 47-78 TWh of load growth by 2046; due to delayed adoption stemming from policy uncertainty and market volatility, electric vehicles are projected to contribute 5-7 TWh of additional load by 2030, with the majority of growth shifting to later years in the forecast horizon.**
  - In the High Trajectory, adoption of electric cars and trucks increases to about 60 percent penetration for light-duty vehicles by 2040, with buses and semis reaching higher levels of roughly 25 percent and 15 percent, respectively.
  - In the Low Trajectory, penetration for electric cars and trucks falls to around 40 percent by 2040, with lower uptake for buses at about 15 percent and semis at roughly 5 percent.

Expectations for the electric vehicle market have shifted significantly since MISO released its December 2024 Long-Term Load Forecast. Changes to IRA incentives under the OBBBA are now expected to moderate EV adoption and reduce MISO's projected electrification-driven load growth. The revised 62 TWh projection reflects a broad cooling of near-term EV momentum. U.S. EV sales growth has softened markedly, with market share falling from about 12 percent to roughly 6 percent in early 2026. Higher prices and financing costs have constrained affordability, and recent changes to federal incentives eliminated an important catalyst for mass-market adoption. Automakers have responded by scaling back EV investments, delaying planned launches, and emphasizing hybrids as a more practical bridge technology. GM, Honda, Ford, Stellantis, and Volkswagen have each slowed EV program timelines and reoriented their near-term strategies accordingly.

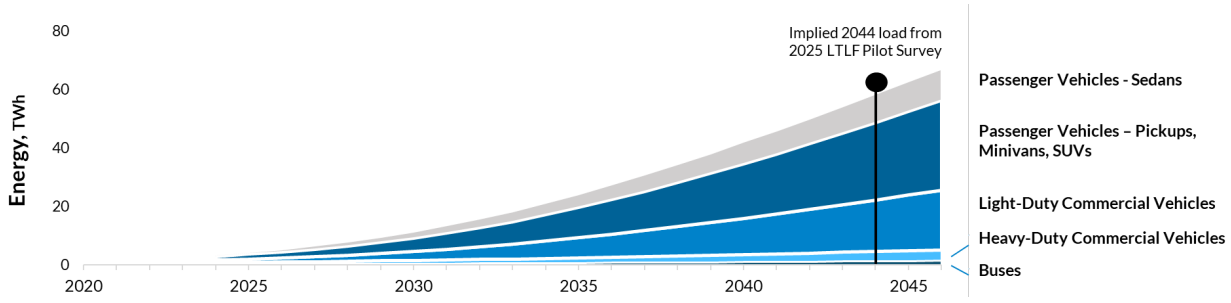


Figure 18: Trajectory of Forecast Energy Growth by Electric Vehicle Segments

Within MISO's 2026 Long-Term Load Forecast, these market and policy developments temper but do not eliminate expected load growth from transportation electrification. Incremental EV-driven

load in the early 2030s is now projected to increase more gradually than in earlier outlooks, even as long-run electrification fundamentals remain intact. Despite this softening outlook, MISO's EV forecast aligns with stakeholder responses to the 2025 LTLF Pilot Survey, which implied about 60 TWh of EV-related energy demand by 2044 after adjusting for the less-than-100% survey response rate.

Electric Vehicle Forecast Methodology

MISO developed LBA-level EV penetration by combining forecasts of new vehicle sales with sigmoid-based adoption curves and allocating results through its GIS-based population framework. National sales forecasts from St. Louis FRED and the Federal Highway Administration were segmented into autos, trucks (including SUVs), buses, and semis, distributed to MISO's fifteen states using Factory Warranty List data, and then allocated across 39 LBAs. EV adoption trajectories were derived from published post-OBBBA projections and calibrated through a national sigmoid curve that reflects current penetration. These curves were scaled by each state's relative adoption level and allocated to the LBA level, allowing LBA-specific EV counts to be generated by applying adoption rates to LBA-level new vehicle sales.

Energy demand was then estimated using vehicle-miles traveled and vehicle-specific energy intensities. Peak load impacts were assessed using hourly charging profiles from NLR (formally NREL) and the U.S. Department of Energy. These state-level profiles were spatially refined to each LBA using MISO's GIS allocation method, producing LBA-specific charging load factors for each vehicle type. This enabled MISO to estimate both the share of EV charging coincident with system peaks and the resulting contributions to LBA-level peak demand.

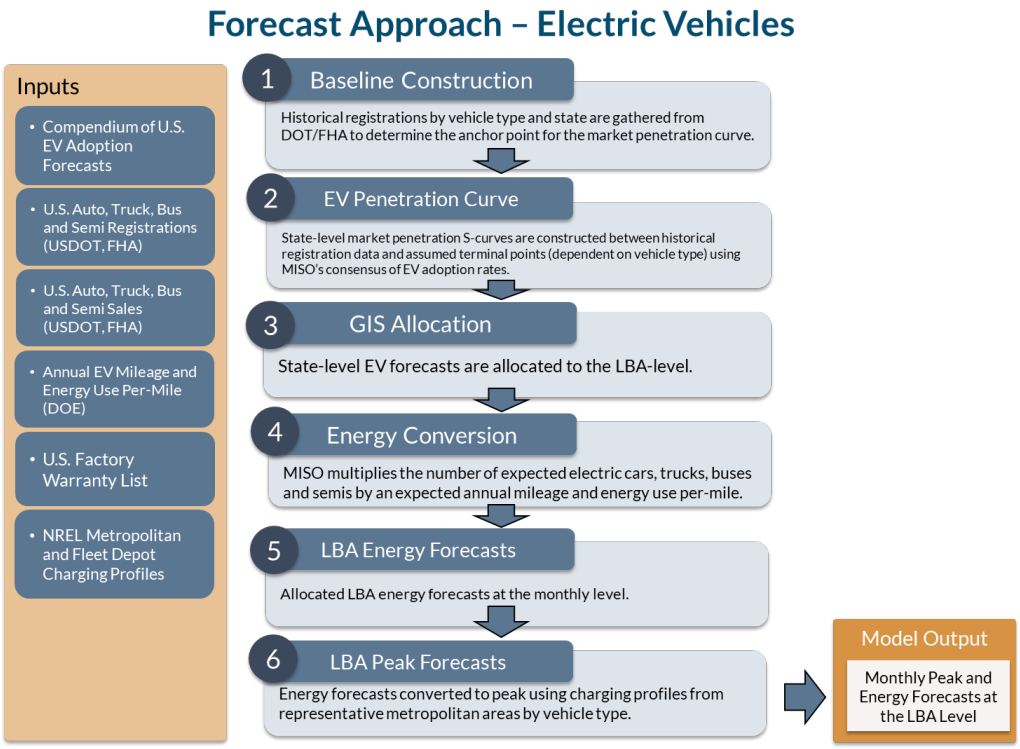


Figure 19: Summary Flowchart of MISO's Electric Vehicle Forecast Methodology

Residential & Commercial

OUTLOOK

Energy from the residential sectors is expected to decrease across the MISO footprint caused by demographic shifts and slower technological adoption; commercial energy is expected to grow, driven by economic growth.

- **The residential and commercial segments are expected to vary between -36-113 TWh of load growth by 2046; between 3-13 TWh of load growth is projected by 2030, influenced by demographic shifts affecting residential demand and steady increases in commercial demand.**
    - In the High Trajectory, MISO applies a +0.5 percent scenario adjustment to the baseline customer growth trend, aligning the upper bound of the forecast with the maximum observed historical growth levels.
    - In the Low Trajectory, MISO applies a −0.5 percent scenario adjustment to the baseline customer growth trend, aligning the lower bound of the forecast with the minimum observed historical growth levels.

This figure reflects the combined effect of moderated residential demand and expanding commercial activity. Residential load is expected to grow by only 2 TWh, driven both by demographic shifts and population decline across MISO states, and by slower adoption of electrification technologies such as heat pumps due to the rollback of key subsidies initially provided under the 2022 IRA. The commercial sector is projected to grow by about 32 TWh, driven by a compound annual growth rate of 0.72 percent from 2026 to 2046, reflecting historically consistent expectations for economic expansion.

Over the next two decades, population trends across MISO states will be driven by persistently weak natural increase, domestic migration that remains mixed but generally subdued, and international inflows that stay positive but increasingly uncertain. Births are expected to remain below deaths across most of the footprint, reflecting structurally low fertility and an aging population yielding increasing mortality rates. On the migration side, net domestic flows are likely to remain modestly negative for several Midwestern states, as long-running outflows to faster-growing Sun Belt markets persist. International migration will remain a key offset but is expected to normalize below recent peaks given tighter policy settings and administrative constraints at the federal level.

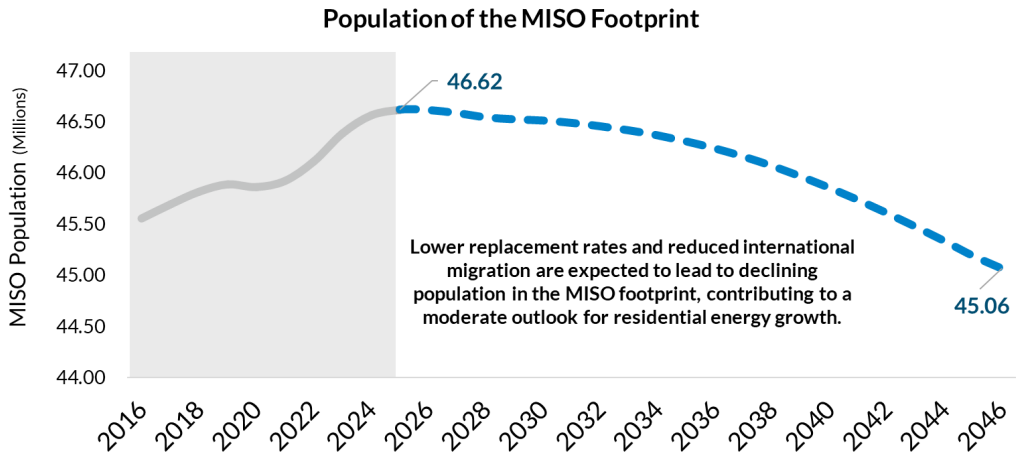


Figure 20: Population Forecast of the MISO Footprint

Taken together, the MISO population is projected to peak at nearly 47 million around 2027 before gradually declining to roughly 45 million by 2046, reflecting a slowing of overall population growth to about –0.2 percent per year, compared with the 0.3 percent annual growth observed from 2008 to 2026.

Residential & Commercial Forecast Methodology

Residential energy is forecast through two linked components: customer counts and use per customer. Customer counts are derived from historical EIA-861 data combined with state population forecasts, then allocated to LBAs using MISO's GIS framework. Use per customer starts from recent EIA-861 sales averages and applies econometric growth rates to reflect expected efficiency and consumption trends. Multiplying LBA-level customer counts by use-per-customer values yields total residential energy, which is then translated to peak contributions using adjusted monthly load factors designed to better reflect residential coincidence with system peaks.

Conventional commercial energy begins with state-level sales data, allocated to the MISO footprint and down to LBAs through the GIS framework. Growth over the horizon is applied using EIA Annual Energy Outlook rates, mapped from regional to state and then to LBA compositions. Monthly energy profiles preserve observed seasonality, and peak contributions are derived by converting monthly energy to demand with a reduced load factor to mirror commercial operations. This approach captures geographic variation and sector-specific operating characteristics while maintaining consistency with national outlooks. MISO applies a long-term smoothed rate of residential and commercial energy growth that accounts for irregular events, such as the COVID-19 pandemic and year-to-year weather variability. Adjustments to these baseline growth rates are then used to define a range of possible forecast outcomes, creating bands around MISO's Current Trajectory.

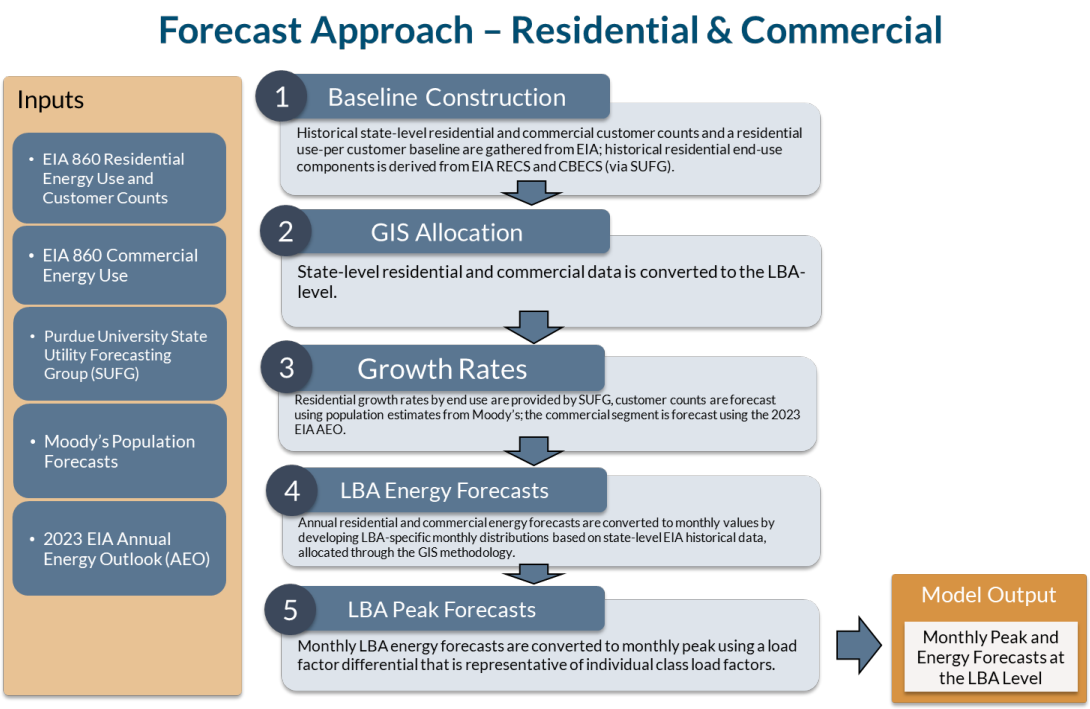


Figure 21: Summary Flowchart of MISO's Residential & Commercial Forecast Methodology

Emerging Industrial

OUTLOOK

In line with broader efforts to reshore industrial activity and support emerging sectors, including data center development, MISO has been tracking large load projects across multiple manufacturing segments and in green hydrogen.

- **The emerging industrial segment is expected to add approximately 7-19 TWh of load growth by 2046 as new facilities come online to support these developing markets; emerging industries in the MISO footprint are expected to add 2-3 TWh of load growth by 2030, with steady demand increases expected over the forecast period.**
    - In the High Trajectory, MISO applies upward scenario adjustments to reflect accelerated deployment and stronger-than-expected market adoption. This results in higher near-term growth rates through 2035 (Solar: 10.4%, Battery: 13.4%, Semiconductor: 10.6%, Other Large Loads: 2.5%) and modestly elevated long-term growth rates beyond 2035 (2.1% across all segments), aligning the upper bound with optimistic but plausible expansion scenarios observed in comparable market conditions.
    - In the Low Trajectory, MISO applies downward scenario adjustments to reflect slower development timelines and more constrained market conditions. This results in reduced near-term growth rates through 2035 (Solar: 7.7%, Battery: 9.9%, Semiconductor: 7.8%, Other Large Loads: 1.8%) and lower long-term growth rates beyond 2035 (1.6% across all segments), aligning the lower bound with more conservative but historically grounded growth outcomes.

Industrial activity across the MISO footprint is expected to accelerate as federal policy increasingly prioritizes domestic manufacturing and advanced computing infrastructure. The 2025 OBBBA in addition to the 2022 CHIPS and Science Act strengthen several industry-focused incentives, supporting growth in semiconductor fabrication, advanced manufacturing, and other high-load facilities. These trends are reinforced by the 2025 AI Action Plan, which promotes U.S. leadership in AI and calls for streamlined permitting for data centers, semiconductor plants, and related infrastructure. At the same time, shifting federal incentives are reshaping expectations for emerging technologies such as green hydrogen. With the repeal or early termination of key IRA provisions, including the Clean Hydrogen Production Tax Credit, anticipated hydrogen-related load growth has declined sharply relative to the 2024 LTLF. While broad, cost-competitive deployment is unlikely in the near term, targeted applications, such as lower-carbon ammonia production for agriculture, continue to emerge within specialized industrial segments.

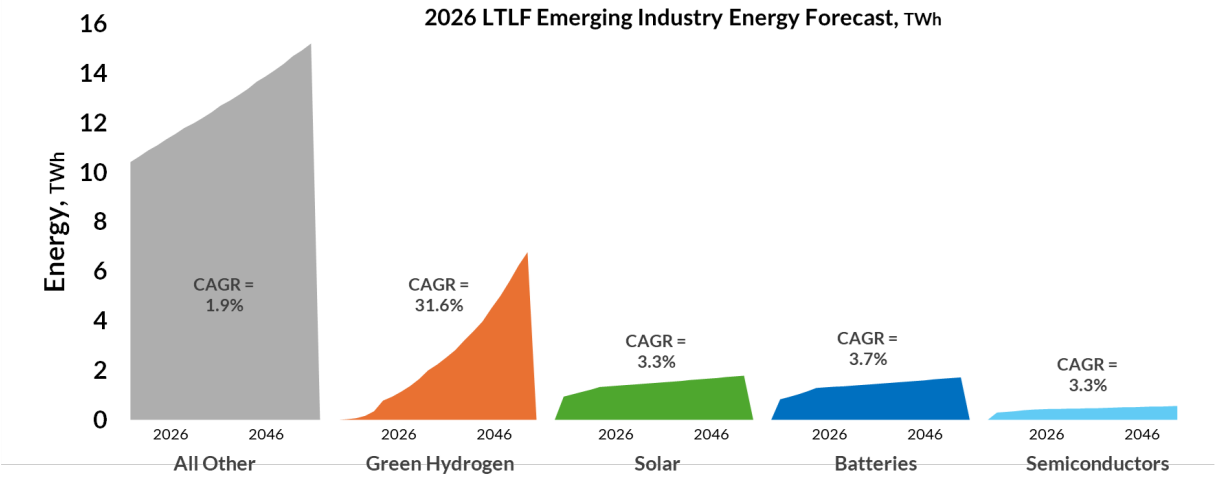


Figure 22: Load Growth Summary by Emerging Industrial Segments

Emerging Industrial Forecast Methodology

MISO's Emerging Industrial segment covers five segments, solar manufacturing, battery manufacturing, semiconductor manufacturing, an "other large loads" category representing facilities above 20 MW and green hydrogen production facilities. MISO begins with a cross-referenced compendium of other large load projects sourced from MTEP submissions, public announcements, and 2025 LTLF Pilot Survey submissions, organized by expected in-service year to form a provisional project pipeline. Historical development from 2021–2025 is used to derive geographically weighted baseline growth rates, which are then extended through 2035 using segment-specific near-term growth expectations, including rates from MISO's 2025 Supply Friction analysis. Long term growth transitions to economy wide rates, yielding segment trajectories that combine project realism, regional development history, and macroeconomic moderation. This results in near-term annual growth rates of 10.44 percent for solar manufacturing, 13.4 percent for battery manufacturing, 10.61 percent for semiconductor manufacturing, and 2.5 percent for other large loads, with a transition to a long-term 1.8 percent economic growth rate from Moody's beyond 2035. Combined with the bottom-up project list and historical trends, these assumptions produce a comprehensive long-term forecast of large load additions across the MISO footprint.

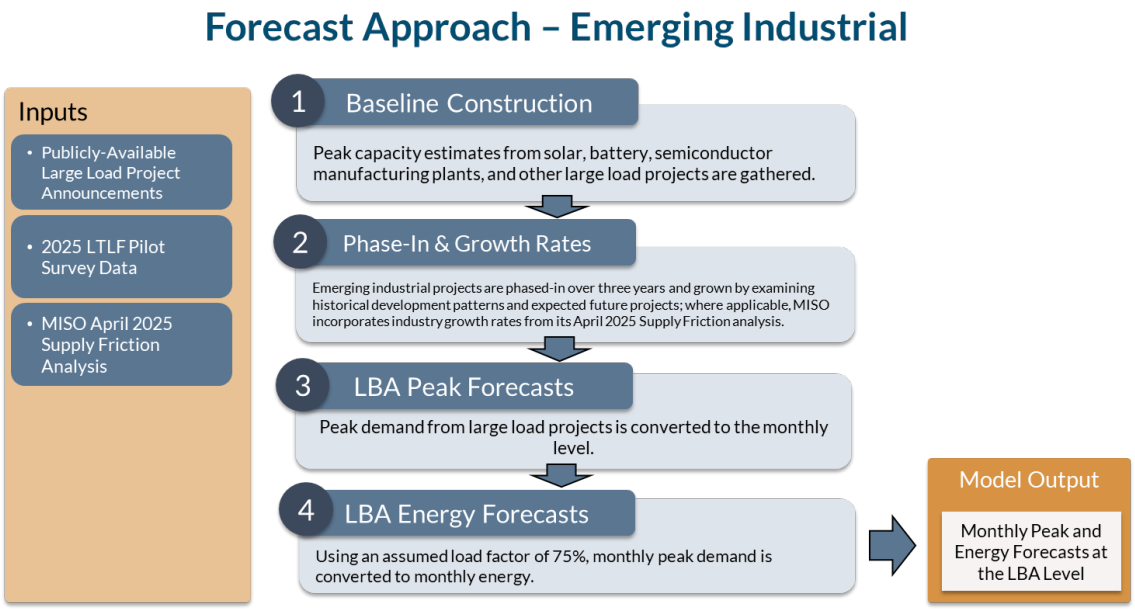


Figure 23: Summary Flowchart of MISO's Emerging Industrial Forecast Methodology

Green hydrogen energy demand is estimated top-down from global clean hydrogen production shares that are progressively allocated to North America, the United States, and relevant states within the MISO footprint. Expected volumes are mapped to identified hydrogen hubs and then allocated to LBAs using the GIS method. Price and cost uncertainty is represented through electrolyzer efficiency and renewable cost trajectories, with scenario-specific assumptions for hub funding and adoption. Energy demand per unit of hydrogen production converts expected volumes to TWh, and high attrition rates reflect project execution risk. Hourly shaping assumes high utilization with modest ramping aligned to renewable output patterns, generating peak contributions consistent with expected operating behavior. The High and Low Trajectories in MISO's Green Hydrogen driver use different NREL ATB technology cost cases to bracket potential renewable energy production, with the High case assuming aggressive cost declines for wind and solar and the Low case assuming conservative costs and halted Midwest Hydrogen Hub development.

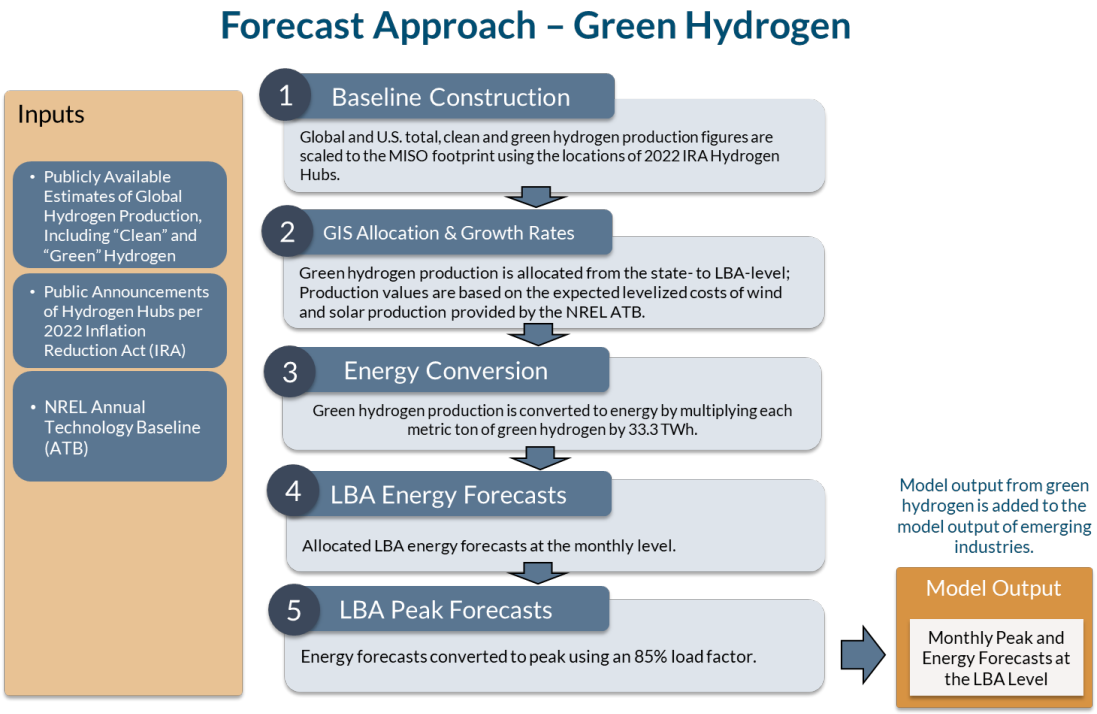


Figure 24: Summary Flowchart of MISO's Green Hydrogen Forecast Methodology

Distributed Energy Resources

Recent federal policy and economic changes have introduced downward pressure on and limited access to widespread distributed energy resource (DER) adoption. The passage of the OBBBA, which eliminated several tax credits and other incentives from the 2022 Inflation Reduction Act, has weakened the economics of distributed generation and reduced access to supportive financing. The early termination of the Section 25D residential clean energy credit which previously covered 30 percent of residential installation costs, lengthens payback periods and reduces returns for residential rooftop solar and storage. In addition, stricter enforcement and faster phaseouts of the business tax credits in Sections 45Y and 48E, including the early elimination of incentives for solar and wind facilities, have made it more difficult for third party-owned, commercial, and community solar projects to qualify for supportive financing.

Federal financial support for programs aimed at expanding DER access have also declined, including the cancellation of the Solar for All program, which will have the effect of limiting solar PV deployment in traditionally underserved areas. Because distributed solar adoption is relatively price-elastic, these cost increases are expected to drive a more-than-proportional decline in uptake, with some marginal customer segments, particularly lower-income and financing-constrained households, effectively exiting the market. Impacts are also expected to vary geographically, with larger demand contractions in lower electricity price regions and more moderate declines in higher-cost markets where underlying bill savings remain comparatively attractive. Taken collectively, residential and commercial adoption of DERs is expected to slow, with deployment unfolding more gradually than earlier forecasts as weaker incentives and tighter financing conditions reduce uptake in many areas, while higher-income regions and customer segments continue to support more moderate, though still reduced, long-term growth.

More recently, distributed resources such as solar, storage, and smaller on-site units have been added to help manage demand at the point of use. Today, MISO only has visibility into these resources when they are explicitly registered in MISO markets, while visibility into unregistered or co-located distributed generation remains very limited. In those cases, their effects are generally assumed to be reflected in net load, contributing to uncertainty and underscoring the need to enhance visibility and improve DER forecasting.

With the growing scale of large data centers, new forms of behind-the-meter generation are emerging that reflect the evolving ways these facilities meet their energy needs. While on-site systems were once limited to emergency backup and had minimal planning impact, some facilities are now installing utility-scale co-located generation that may operate regularly or dynamically offset grid supply, depending on each project's needs. This emerging industrial self-supply can often be unregistered and not fully integrated into MISO markets, creating visibility gaps that contribute to forecasting challenges. As these trends continue to develop, MISO's goal is to enhance visibility into on-site generation and strengthen forecasting, planning, and operational capabilities as part of ongoing monitoring and future improvements.

Distributed Energy Resources Forecast Methodology

MISO's Long-Term Load Forecast (LTLF) is developed on a net basis at the transmission-distribution interface, reflecting gross load adjusted for transmission-side losses and behind-the-meter generation on the distribution side of the interface. Consistent with this framework, distributed energy resources (DERs), which reside on the distribution side of the interface, are not directly included in the LTLF but are instead forecast separately to inform estimates of gross load.

DERs include behind-the-meter distributed generation and various demand-side technologies that, when aggregated and registered, can operate as demand response resources.

As part of the 2025 Load Pilot Survey, MISO requested DER adoption metrics from stakeholders; however, results indicated limited availability of forward-looking data on demand response, distributed generation, and demand-side management. For the 2026 LTLF, MISO engaged Kevala to provide a more data-driven approach to forecasting both gross load and DER adoption at the Local Resource Zone (LRZ) level. Kevala developed hourly load and DER forecasts by customer class, translating these into annual energy and capacity metrics using public datasets (including data from the EIA and the National Laboratory of the Rockies), MISO historical load data, and proprietary sources. The analysis focused on demand response and distributed generation across the residential, commercial, and industrial sectors, including resources co-located with large loads such as data centers.

Currently, distributed generation is predominantly solar PV, with other technologies representing a relatively small share, as shown in the results of the 2025 Organization of MISO States (OMS) DER Survey. The survey estimates approximately 17 GW of load-modifying resources currently on the system, of which about 8.5 GW are registered in the Midcontinent Independent System Operator Planning Resource Auction (PRA). While MISO works to improve DER visibility and forecasting, particularly to better understand registered vs. non-registered grid flexibility levers, limited insight into actual performance remains a challenge. Additionally, as behind-the-meter DERs are increasingly deployed across the footprint and registered into MISO's markets, future process improvements will require deliberate tracking of these resources to distinguish them from other load impacts, avoid double counting, and ensure an accurate assessment of total effects on net load.