



Generator Interconnection Queue Update

System Planning Committee
of the Board of Directors

December 10, 2024

Executive Summary



- Forward resource adequacy assessments indicate a growing supply-demand gap magnified by economic development drivers and new large spot load additions; supply-side frictions contribute to delays of new resources
- Though MISO remains committed to Queue enhancements like the recently filed Queue Volume Cap and the automation of early-stage studies, those efforts are insufficient to meet near-term regional needs
- MISO is developing an Expedited Resource Adequacy Study (ERAS) process to expedite interconnections until enhancements reduce the Queue study process timeline

Many factors continue to drive changing and increasing resource adequacy risk



Continued large volumes of Generator Interconnection Queue requests and accumulating backlog prevent one-year study timeframe



Delays getting projects with signed interconnection agreements built due to supply chain bottlenecks, permitting delays and commercial challenges

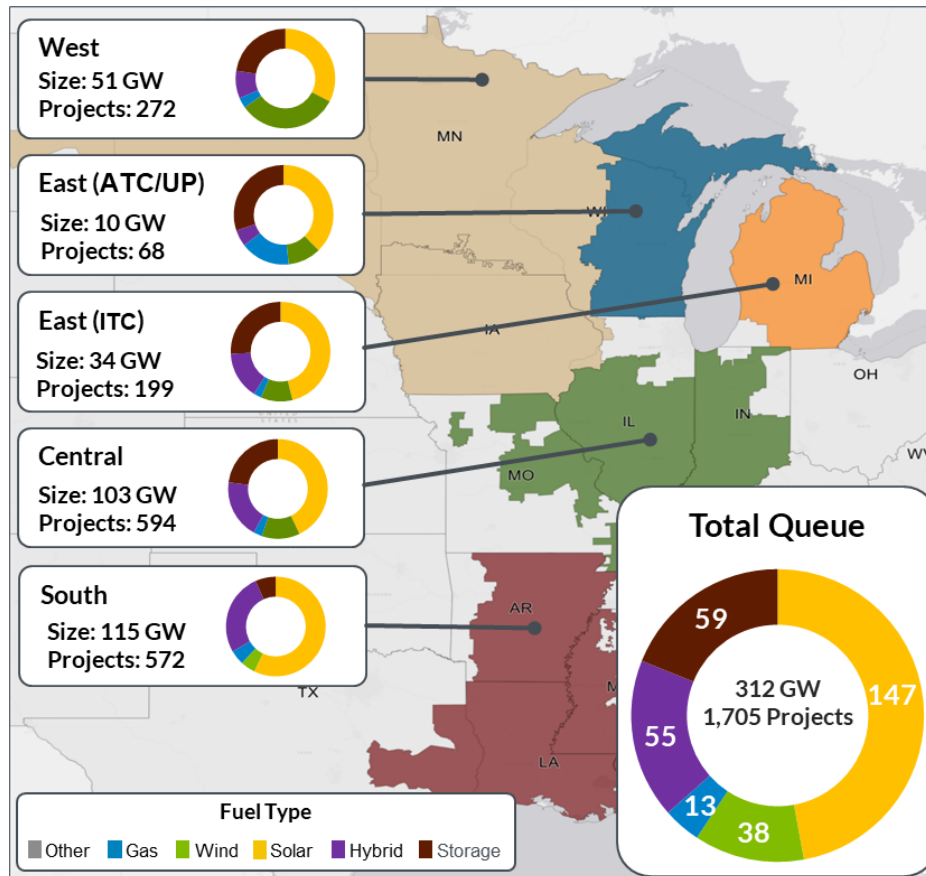


Load growth due to economic development and new, large spot load additions and lack of ability to concurrently add new resources



Continuing rapid pace of resource retirements

MISO's large Queue volume and a backlog of applications are contributing to the delay of resource additions



CURRENT QUEUE

- Tariff time is 1-year
- Cycles are taking 3-4 years
 - Late-stage dropouts from 2020-2022 require restudies and prevent processing of later cycles
- Generator Interconnection Agreements are required now for projects aimed at meeting resource adequacy needs in the next 3-5 years

Queue data as of 11/4/2024

MISO has been actively improving the manageability of its Queue to provide a critical path to timely resource approvals, but it may take several years to reduce Queue processing to a one-year timeframe

2024 Accomplishments	2025 Plans	
	Queue Improvements	Support for Timely Resource Additions
<ul style="list-style-type: none">• Implemented FERC-approved reforms• Filed compliance with FERC Order 2023• Received FERC approval of JTIQ framework	<ul style="list-style-type: none">• Implement Queue Cap upon receiving FERC approval• Begin using innovative software for automation of early Queue phases	<ul style="list-style-type: none">• Commercial Operation Date tracker tool and web postings• Launch Expedited Resource Adequacy Study (ERAS) process



Improvements are addressing the Queue backlog, improving certainty of projects and addressing resource adequacy needs

New software and the Queue Volume Cap will help achieve a more manageable number of requests and a one-year processing timeline

QUEUE VOLUME CAP

- Cap is 50% of each planning region's non-coincident peak load

Filed Nov. 2024 with requested effective date of Jan. 2025

Projects over Cap will be first in line for the next cycle, per submission timestamp

- Addresses engineering problem of only serving load with new requests
 - More realistic resource dispatch, models and analysis
- FERC guidance incorporated in MISO's refiling

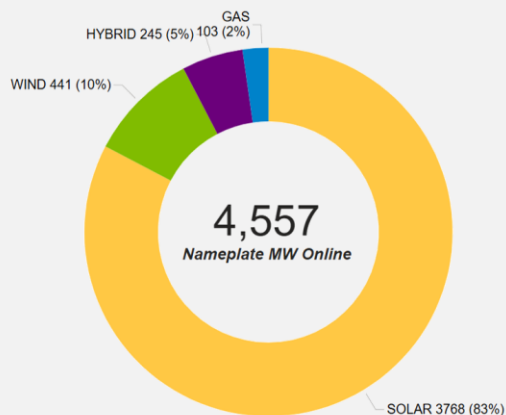
AUTOMATION

- Enables early-stage studies to run in parallel in the cloud
- Increases the efficiency of power flow model build processes
- Provides customers information more quickly
 - Pre-screen
 - Power flow models
 - Network Upgrade identification and cost allocation
 - System Impact Study (SIS) reports
- Additional automation is planned

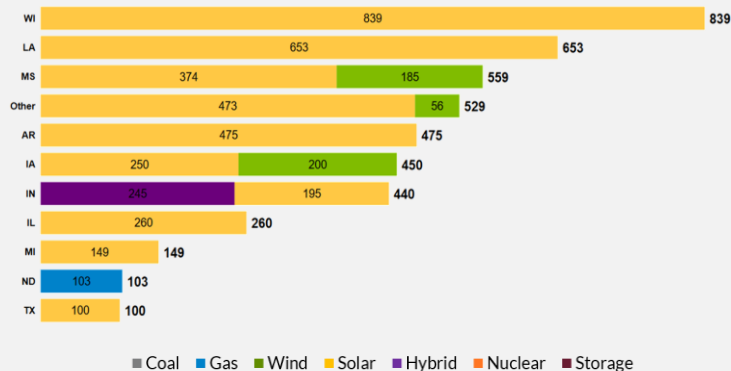
Increased data transparency and ongoing updates help inform the resource planning landscape in the MISO region

Commercial Operation Date (COD) information that will be shared online

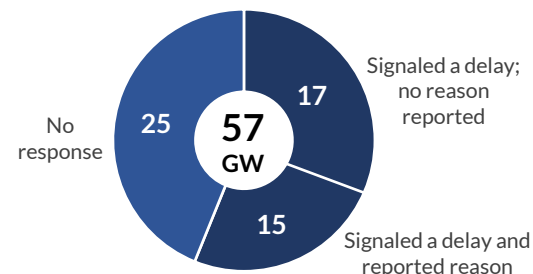
GENERATION ADDED IN 2024* NAMEPLATE (MW)



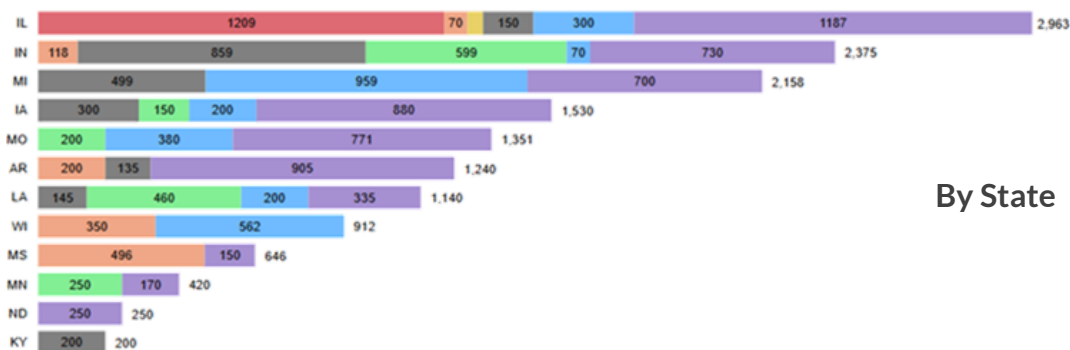
By State



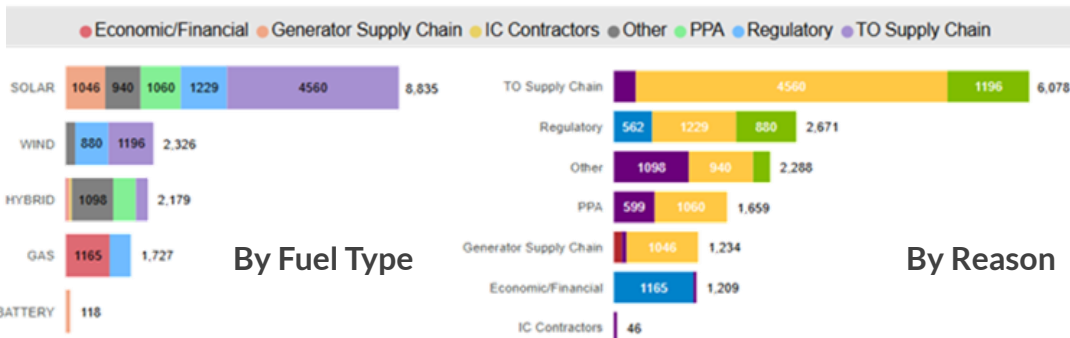
SURVEY OF DELAYED PROJECTS**



DELAY REASONS (MW)



By State



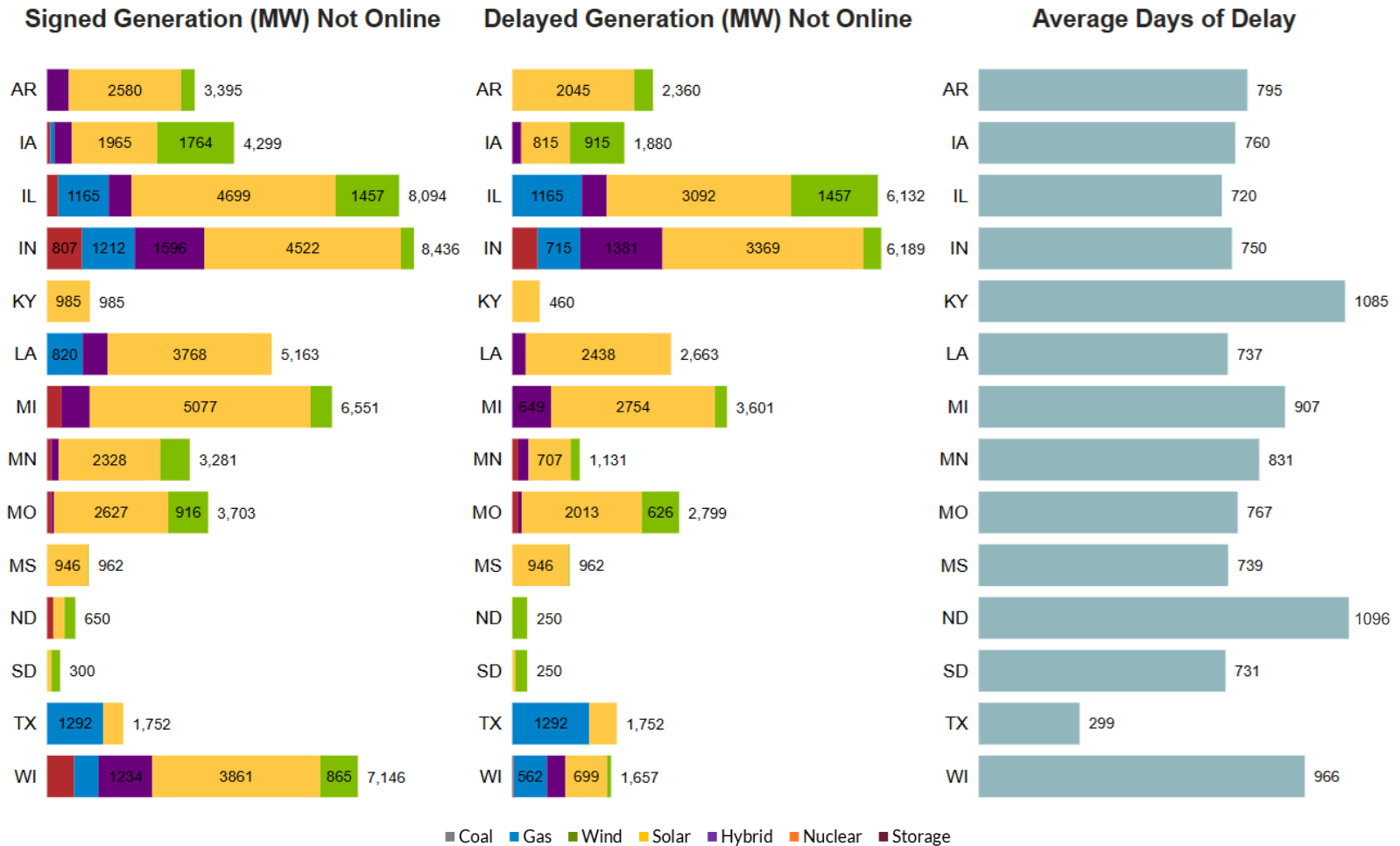
By Fuel Type

By Reason

*Data as of 11/23/2024. **Additional capacity that can add to the 2024 totals is in the testing phase.

Additional data views on state-level details show location and extent of delays

Examples of shared data and information*



*Data as of 11/23/2024

MISO is proposing the Expedited Resource Adequacy Study (ERAS) process as a short-term solution to address capacity concerns until the Queue backlog and study timeline are reduced



Addresses Load Serving Entities with resource adequacy needs that must be resolved within the next five years

Projects must be recognized by their regulatory authority



Projects would be evaluated individually instead of in clusters, allowing GIA execution within months versus years



ERAS would be available for new projects and some existing projects in the Queue