



# MISO Resource Adequacy

## Crossroads for Markets and Clean Energy

Illinois Renewable Energy Conference

October 2, 2024

**David Sapper**

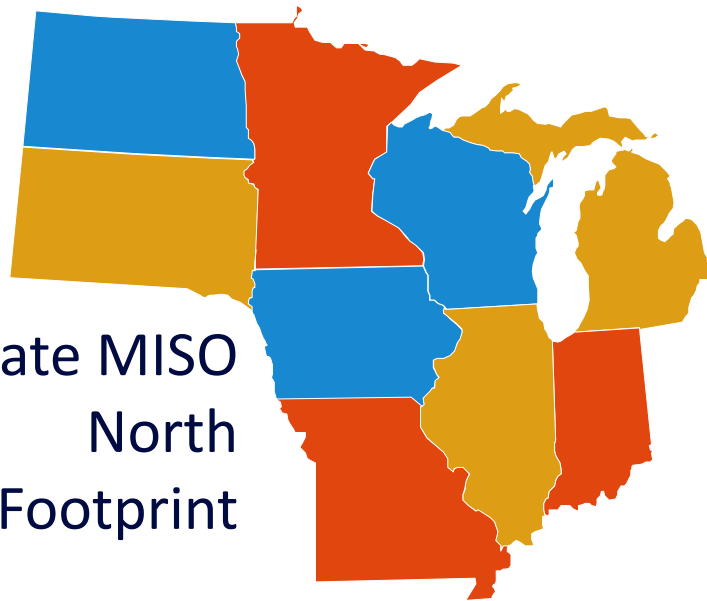
VP Transmission & Markets

# Advancing Renewable Energy in the Midwest



## Expertise. Strategy. Influence.

CGA works "behind the light switch" to transform the electricity system and incorporate affordable, reliable, renewable energy and energy storage.



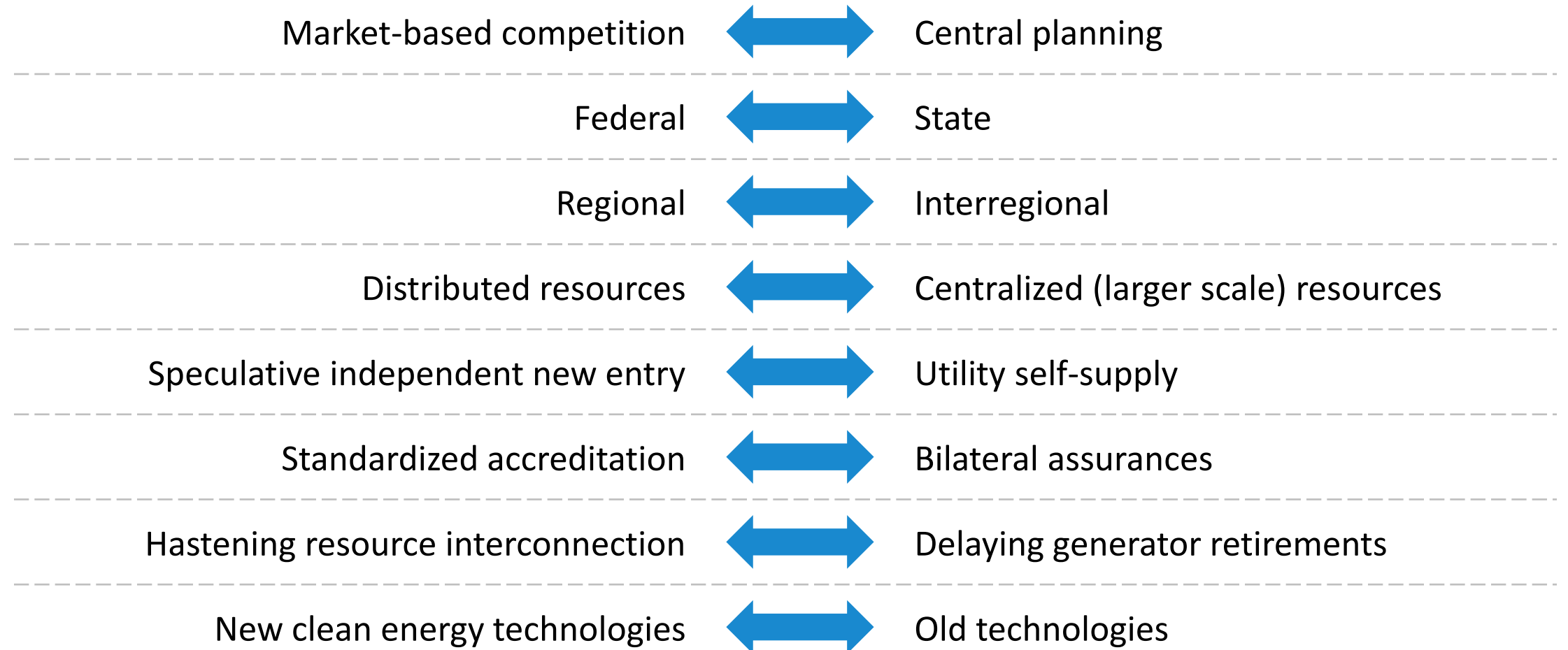
9-State MISO  
North  
Footprint

- **State Policy**  
CGA advocates for renewables across the Midwest at state legislatures and regulatory commissions.
- **Technical & Regulatory**  
CGA advocates across a 9-State MISO footprint to update market rules and add transmission capacity for a modern, resilient grid for the Midwest.
- **Communications**  
Our communications team creates educational resources for policy leaders and constituent audiences to spread the good news about renewable energy.

# Thesis

- Resource adequacy is vital for maintaining electric service reliability and affordability during the clean energy transition.
- Organized (inter)regional wholesale energy and capacity markets, as well as (inter)regional transmission interconnection and expansion planning, are important for efficiently ensuring resource adequacy.
- MISO's internal and interregional wholesale market operations and (inter)regional transmission interconnection and expansion planning can efficiently ensure resource adequacy.
- For maintaining resource adequacy, MISO should continue to respect its guiding market principles and deviate only for socially beneficial non-market coordination that does not inefficiently hinder clean energy expansion.
- Resource interconnection speed and scale must continue to improve for resource adequacy; however, Industry coordination and collaboration should focus on improving processes rather than favoring preferred resource types.

# Interchangeable and Mixable Options for Resource Adequacy



A photograph of several white wind turbines against a blue sky with scattered white and grey clouds. A semi-transparent blue rectangular box is overlaid on the left side of the image, containing the title text.

# Market Principles vs Coordination and Collaboration

# Market Principles vs Coordination and Collaboration

## Stakeholder Feedback Request

- MISO supports the continued relevancy of the **Market Guiding Principles**, and as part of a routine review, requests stakeholders provide comments on these principles
- Provide feedback by September 13, 2024
- Feedback requests and responses are managed through the Feedback Tool on the MISO website: <https://www.misoenergy.org/stakeholder-engagement/stakeholder-feedback/>

### Market Design Guiding Principles

1. Support an economically efficient wholesale market system that minimizes cost to serve load
2. Facilitate non-discriminatory market participation regardless of resource type, business model, sector or regional location
3. Develop transparent market prices reflective of marginal system cost, and cost allocation reflective of cost-causation and service beneficiaries
4. Support Market Participants in making efficient operational and investment decisions
5. Maximize alignment of market requirements with reliability requirements of the system

7



\*Information from slide 7; [Market Guiding Principles \(misoenergy.org\)](https://www.misoenergy.org/stakeholder-engagement/stakeholder-feedback/)

# Market Principles vs Coordination and Collaboration

## Clean Grid Alliance Submitted by David Sapper

Posted - 09/16/2024

Clean Grid Alliance appreciates this feedback opportunity.

MISO's guiding market principles are adequate as precepts that MISO should aspire to follow across all market-related processes. Practical interpretation and implementation are critical for the principles to have meaning and effect, so MISO should continuously communicate how MISO's proposals and actions adhere to the principles.

\*Information from submitted feedback; Clean Grid Alliance Submitted by David Sapper;  
[MSC: Market Guiding Principles \(20240822\) \(misoenergy.org\)](#)

# Market Principles vs Coordination and Collaboration

As MISO executes on Reliability Imperative priorities, broad coordination is needed to consider all actions to support reliability and load growth

- Delaying retirements / maintaining existing fleets continues to be the best immediate lever
- Consideration for relaxed renewable / clean energy goals, providing longer glidepath, to reflect the magnitude of landscape change since many of them were implemented
- Collaboration on potential options for expediting the most critical new resource additions
- Moving LRTP Tranche 1 projects forward quickly and preparations for the same on Tranche 2.1

9 | Board of Directors, September 19, 2024



\*Information from slide 9; [Strategy Update: Reliability Imperative \(misoenergy.org\)](https://www.misoenergy.org/strategy-update-reliability-imperative)



A photograph of several white wind turbines against a blue sky with scattered white and grey clouds. A semi-transparent blue rectangular box is overlaid on the left side of the image, containing white text.

# Current MISO Proposal for Coordination and Collaboration

# Current MISO Proposal for Coordination and Collaboration

Generator Interconnection  
Queue Improvements  
(PAC-2023-1)

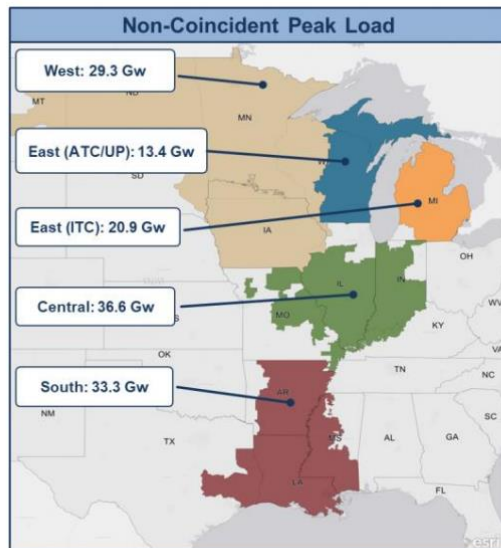
MISO Cap Proposal

- In response to feedback, MISO would like to further discuss and clarify proposed Cap filing details, such as exemptions, Cap formula calculations, and the application process under the Cap
- Final proposal will be presented at the October 16th PAC

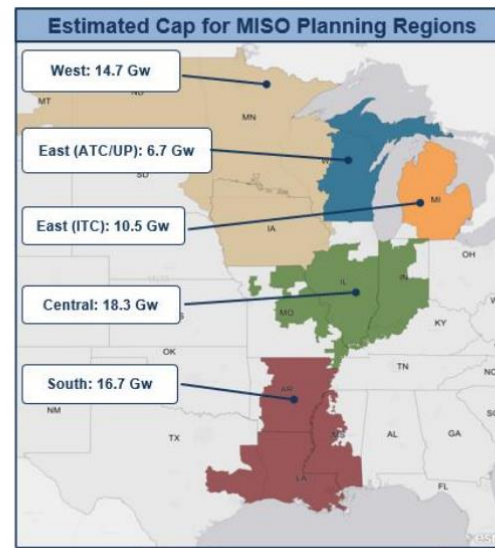
\*Information from slide 1 & 2; [20240930 IPWG Item 02a MISO Cap Proposal \(PAC-2023-1\) \(misoenergy.org\)](#)

# Current MISO Proposal for Coordination and Collaboration

MISO's Cap will be 50% of each Planning Region's Non-Coincident Peak improving the quality of initial studies and potentially reducing network upgrade costs.



2023 Non-Coincident Peak Load ~134 GWs



The planned 2024 cycle will be ~68 GWs

- Projects over Cap will be first in line per submission timestamp
  - Projects over Study Region Cap will not be used to fill Study Region Cap that aren't filled
- No further adjustments will be made to Study Region Cap for exemptions or estimated withdrawals
- 3-year review of effectiveness of the queue Cap

*\* Once the Cap is met additional applications would begin accumulating for the next cycle. The RERRA exemptions, if needed would be added to current cycle.*

# Current MISO Proposal for Coordination and Collaboration

## Cap Exemptions

MISO proposal is to maintain exemption setup for:

- Provisional Generator Interconnection Agreement (submitted with the application),
- Requests to convert ERIS to NRIS,
- Approved Replacement Generating Facility requests seeking additional interconnection service,
- Limited exemptions for Relevant Electric Retail Regulatory Authority's (RERRA) resource adequacy needs

7



\*Information from slide 7; [20240930 IPWG Item 02a MISO Cap Proposal \(PAC-2023-1\) \(misoenergy.org\)](#)

# Current MISO Proposal for Coordination and Collaboration

## OMS Transmission Planning Work Group RERRA Exemption Strawman Proposal September 30, 2024 IPWG Meeting

Any Interconnection Request (IR) that complies with MISO's Generator Interconnection Procedures shall not be subject to MISO's proposed interconnection queue cap under the following conditions:

1. A RERRA notifies MISO, in writing, with an executed affidavit, order, or official signed letter from the RERRA Secretary or equivalent position acknowledging that the IR is associated with a resource incorporated in the most recently accepted, reviewed, or approved Integrated Resource Plan (IRP) or similar state or local regulatory proceeding, filing, or process;
2. The resource associated with the IR would need to have applied for a level of transmission service to allow the resource to receive PRA capacity credits;
3. The Resource is needed within four (4) years to provide resource adequacy within the geographic territory of the approving RERRA; and
4. The costs of the resource associated with the IR will be eligible for recovery through retail rates approved by the RERRA.

Contact Info: [Brad@misostates.org](mailto:Brad@misostates.org)

\*Information from [20240930 IPWG Item 02a RERRA Exemption Strawman Proposal \(PAC-2023-1\) OMS TPWG650798.pdf \(misoenergy.org\)](#)

A photograph of several white wind turbines against a blue sky with scattered white and grey clouds. A semi-transparent blue rectangular box is overlaid on the left side of the image, containing the title text.

# MISO Resource Adequacy Crossroads Considerations

# MISO Resource Adequacy Crossroads Considerations

- Coordination and collaboration for reliability need not and should not distort market forces driving clean and reliable resource expansion.
  - MISO's industry-leading interconnection process uses metrics to coordinate queued projects so that commercially ready projects proceed faster on a non-discriminatory bases – and it's working!
- Coordination and collaboration for reliability need not sacrifice clean energy or new technologies.
  - Battery storage interconnection and dual -use as market and transmission assets for reliability could be facilitated with more coordination and collaboration between and among MISO, state regulators, monopoly utilities, competitive suppliers, and customers.
- Proper coordination and collaboration could foster resource expansion and competition.
  - In lieu of MISO coordinating with regulators and utilities to hasten certain resource interconnections, what if project owners could coordinate their project parameters for faster and cheaper queue processing?
  - Gas-electric harmonization remains elusive, which threatens gas-fired generation usefulness and limits expansion possibility.
  - Demand-side market participation requires coordination across jurisdictional and operational lines.

# MISO Resource Adequacy Crossroads Considerations

- More coordinated and collaborative use of demand and supply information will improve market operations, hasten resource and load interconnections, and improve grid expansion planning.
  - Look-ahead unit commitment and dispatch tools can make better use of demand information.
  - Resource and transmission expansion planning can make better use of new large load growth information.
- Standardized capacity requirements and accreditation help ensure homogeneous "demand" and supply, which is important for market efficiency and reliability.
  - They should be sufficiently similar across regions for efficient resource adequacy coordination and collaboration by local and regional grid operators.
- “All of the above” resource expansion is best guided by competitive market forces.
  - In addition to battery storage, MISO’s market designs should accommodate storage hybrids, distributed resources, external resources, and HVDC-related resources, so that wholesale market rules can shape the resource mix to ensure reliability and affordability.



# MISO Resource Adequacy Crossroads Considerations

- More coordination and collaboration would enable more meaningful joint and common markets (JCMs) across regional grid borders, which would better ensure reliability and affordability.
  - JCMs could emerge from convenience or necessity due to shrinking capacity supply balances across regions.
  - More standardization of interface pricing and scarcity pricing would be good first steps.
- Energy and Operating Reserves and Ancillary Services and Planning Reserve (“capacity”) prices are crucial for maintaining resource adequacy, but those imbalance markets feature the redistribution of excess revenues and economic congestion hedges that blunt the price signals.
  - Different excess revenue redistribution rules could motivate preferred reliability outcomes.
- MISO’s Local Capacity Requirement (LCR) calculation and pricing should be reformed to provide better market entry incentives for resource adequacy without (unprecedented) MISO-utility coordination.
  - LCR motivates suppliers to self-supply local (zonal) capacity, but the “1.75\**CONE*” clearing price cap reduces inframarginal suppliers’ revenues from marginal pricing, thus reducing the upside of excess local self-supply.
  - MISO should better streamline and focus the LCR for more geographically granular investment signals that better ensure grid development where it’s most needed.

# Contact Information

David Sapper

[dsapper@cleangridalliance.org](mailto:dsapper@cleangridalliance.org)

608-239-9759