







WIRES UNIVERSITY MISO Planning Overview

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MISO Overview

- Independent, non-profit organization responsible for maintaining reliable transmission of power
- First Regional Transmission Organization (RTO) approved by the Federal Energy Regulatory Commission (FERC)

Regions MISO Reliability North

- 42 million end-use customers
- 99.99% system reliability
- \$25 billion energy market
- 192,000 MW of generating capacity
 - Send operating instructions to 6,000+ generators every 5 minutes
- 65,800 miles of transmission lines
- 52 Members
- 426 Market Participants
- Jurisdictions
 - 15 States
 - 1 Canadian Province
 - City of New Orleans

MISO-

MISO Planning Objectives

MISO Board of Directors Planning Principles

Develop a transmission plan that meets all applicable NERC and Transmission Owner planning criteria and safeguards local and regional reliability through identification of transmission projects to meet those needs Make the benefits of an economically efficient electricity market available to customers by identifying transmission projects which provide access to electricity at the lowest total electric system cost expansion plan that meets reliability needs, policy needs, and economic needs

Analyze system scenarios and make the results available to state and federal energy policy makers and other stakeholders to provide context to inform regarding choices

Fundamental Goal

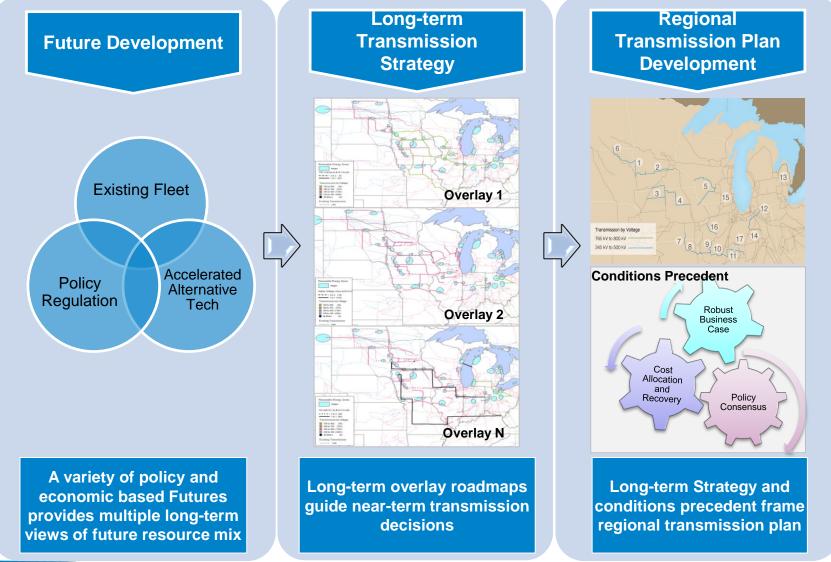
The development of a comprehensive expansion plan that meets reliability needs, policy needs, and economic needs

Provide an appropriate cost allocation mechanism that ensures that costs of transmission projects are allocated in a manner roughly commensurate with the projected benefits of those projects

Coordinate planning processes with neighbors and work to eliminate barriers to reliable and efficient operations Support state and federal energy policy requirements by planning for access to a changing resource mix

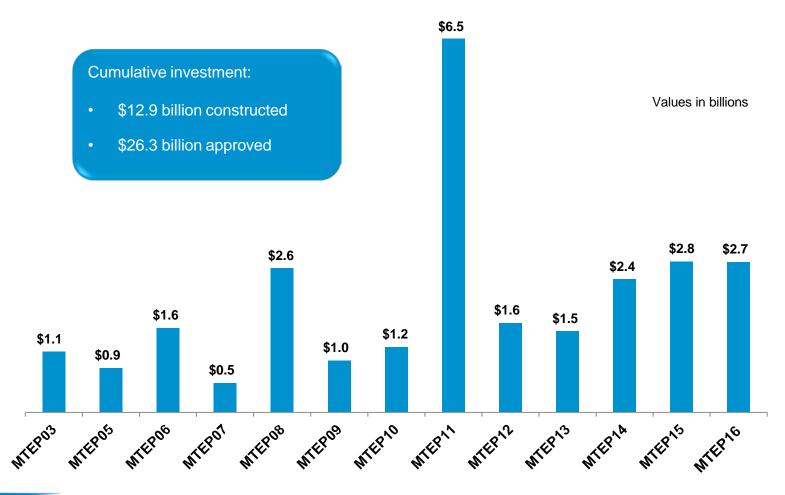


MISO's value-based transmission planning process seeks to ensure appropriate transmission projects are in place given an evolving resource portfolio





Through that process MISO has facilitated significant transmission investment in its region





Some aspects of the electric and gas industries are regulated by FERC, while others are regulated by state utility commissions

| Electricity: Who regulates what? | | Natural gas: Who regulates what? | |
|---|---|---|--------------|
| Generation of the commodity | Unregulated in some areas; states in others, but never FERC | Production of the commodity | Unregulated* |
| Siting/ construction of generation & transmission | States | Siting and construction of interstate pipelines and storage | FERC |
| Wholesale sales, rates & transmission | FERC | Transportation, including rates for services | FERC |
| Retail sales & distribution | States | Sales of gas in interstate commerce | FERC |
| Reliability of high voltage transmission system | FERC | Local distribution companies | States |



*While gas producers are subject to safety/environmental standards, they do not have state-designated "territories" as many electricity generators do, and there is no price or rate regulation at the state or federal levels. MISO coordinates extensively with state regulatory agencies to ensure current and future energy needs are met

- RTO scope single vs. multi-state.
- State geography single vs. multi-RTO.
- MISO spans 15 largely traditionally regulated states – one that is fully within the MISO footprint.
- Significant coordination both with individual state regulatory agencies, and the Organization of MISO States.



