



WIRES UNIVERSITY

MISO Planning Overview

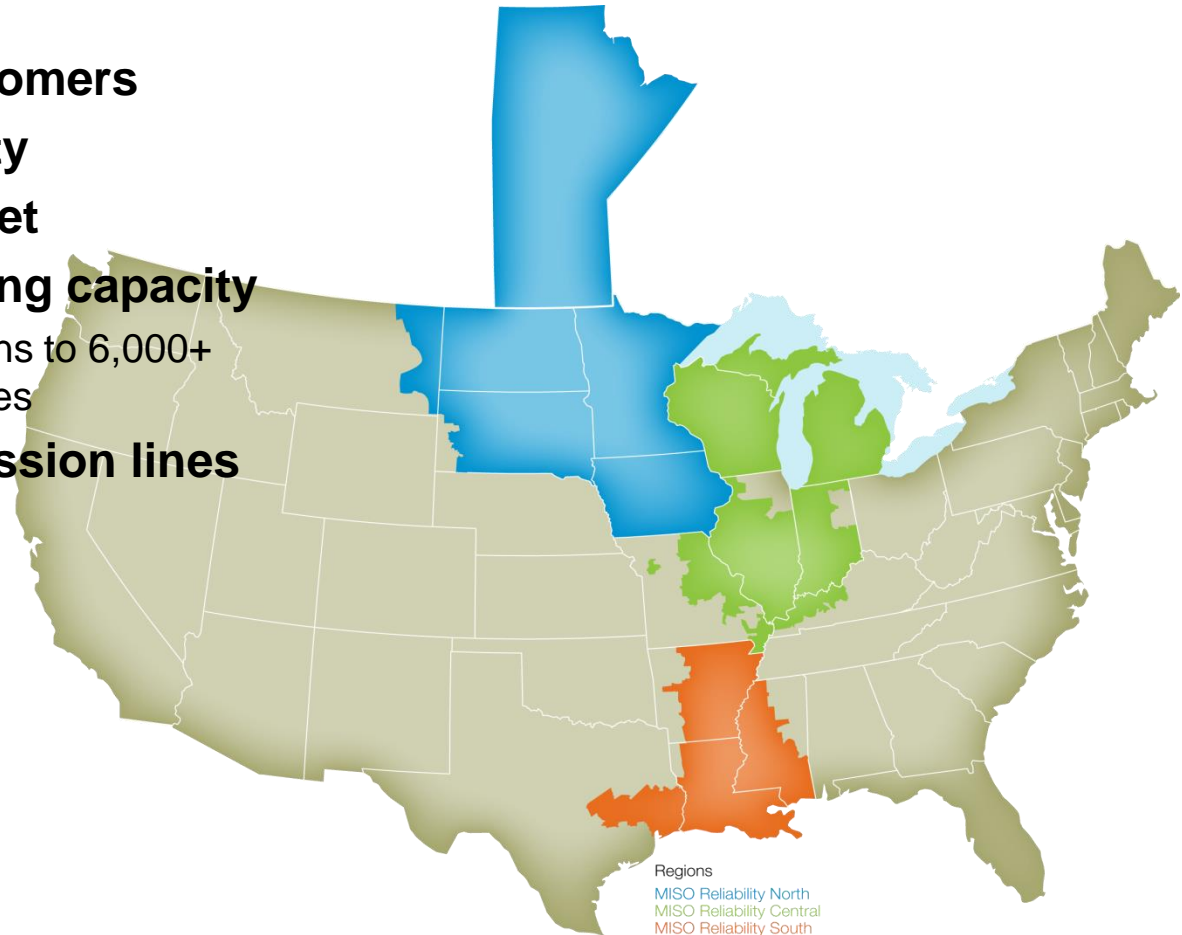
**Clair Moeller, Executive VP
Mid-Continent ISO**

February 16, 2017

MISO Overview

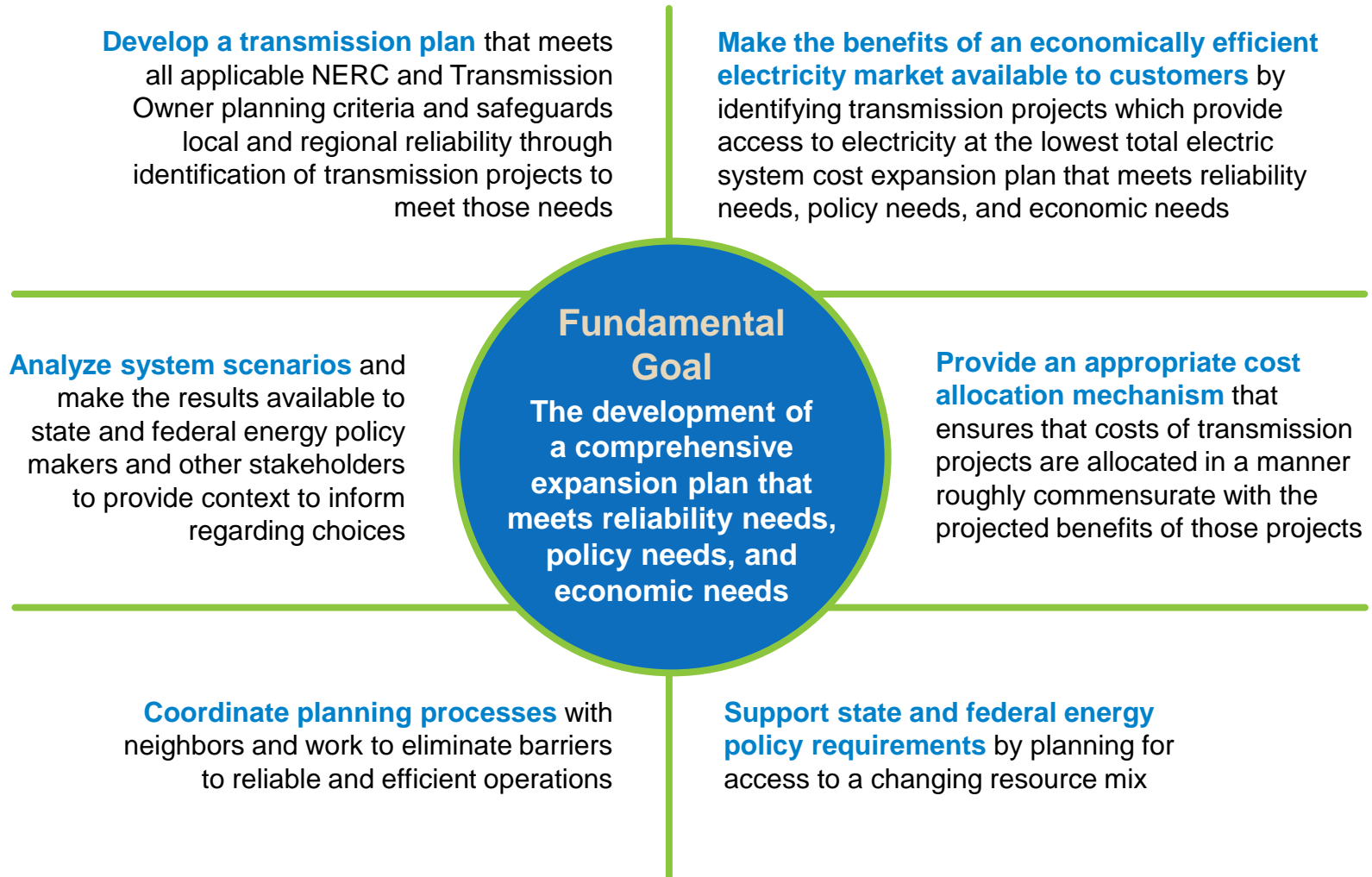
- Independent, non-profit organization responsible for maintaining reliable transmission of power
- First Regional Transmission Organization (RTO) approved by the Federal Energy Regulatory Commission (FERC)

- **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

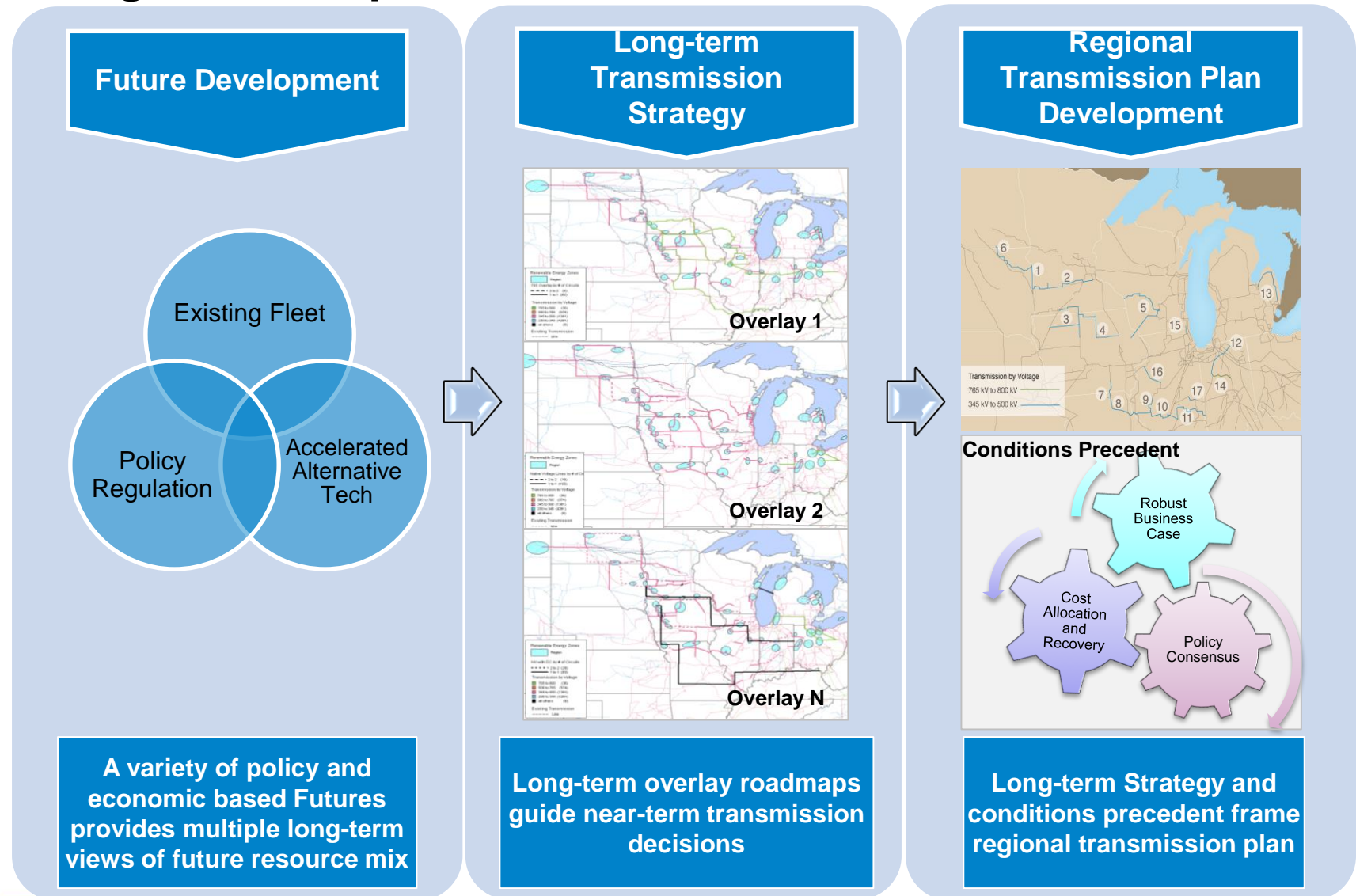


MISO Planning Objectives

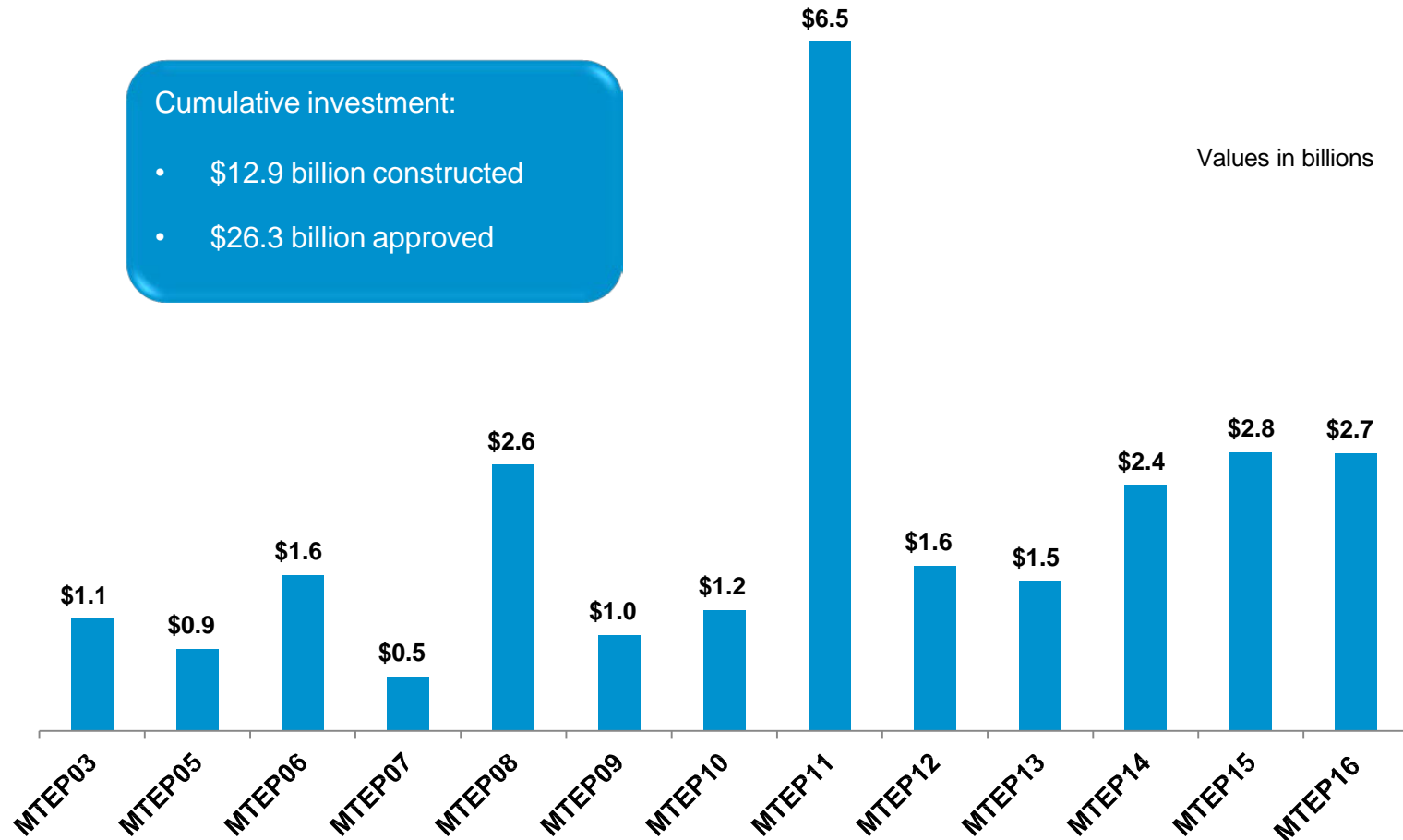
MISO Board of Directors Planning Principles



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?

Generation of the commodity	Unregulated in some areas; states in others, but never FERC
Siting/ construction of generation & transmission	 States
Wholesale sales, rates & transmission	 FERC
Retail sales & distribution	 States
Reliability of high voltage transmission system	 FERC

Natural gas: Who regulates what?

Production of the commodity	Unregulated*
Siting and construction of interstate pipelines and storage	 FERC
Transportation, including rates for services	 FERC
Sales of gas in interstate commerce	 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.

