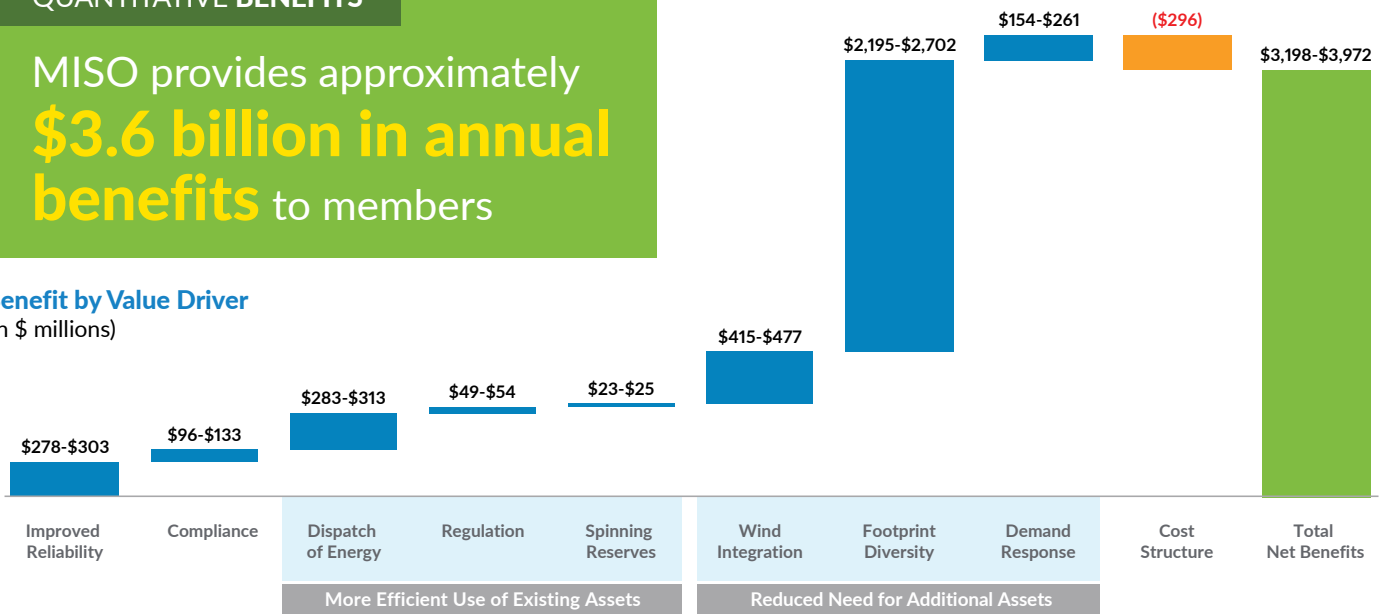


### QUANTITATIVE BENEFITS

MISO provides approximately **\$3.6 billion in annual benefits** to members

#### Benefit by Value Driver (in \$ millions)



### IMPROVED RELIABILITY

MISO's broad regional view and state-of-the-art reliability tool set enable improved reliability for the region as measured by transmission system availability.

### DISPATCH OF ENERGY

MISO's real-time and day-ahead energy markets use security constrained unit commitment and centralized economic dispatch to optimize the use of all resources within the region based on bids and offers by market participants.

### REGULATION

With MISO's regulation market, the amount of regulation required within the MISO footprint dropped significantly. This is the outcome of the region moving to a centralized common footprint regulation target rather than several non-coordinated regulation targets.

### SPINNING RESERVES

Starting with the formation of the Contingency Reserve Sharing Group and continuing with the implementation of the Spinning Reserves Market, the total spinning reserve requirement declined, freeing low-cost capacity to meet energy requirements.

### WIND INTEGRATION

MISO's regional planning enables more economic placement of wind resources in the region. Economic placement of wind resources reduces the overall capacity needed to meet required wind energy output.

### COMPLIANCE

Before MISO, utilities in the MISO footprint managed FERC and NERC compliance. With MISO, many of these compliance responsibilities have been consolidated. As a result, member responsibilities decreased, saving them time and money.

### FOOTPRINT DIVERSITY

MISO's large footprint increases the load diversity, allowing for a decrease in regional planning reserve margins from 23.7% to 17.1%. This decrease delays the need to construct new capacity.

### DEMAND RESPONSE

MISO enables demand response through transparent market prices and market platforms. MISO-enabled demand response delays the need to construct new capacity.

### MISO COST STRUCTURE

MISO expects administrative costs to remain relatively flat and to represent a small percentage of the benefits.

### QUALITATIVE BENEFITS

In addition to the quantitative benefits, MISO also demonstrates significant qualitative benefits that wholesale market participants receive from the operation of MISO, including:

- Price/Informational Transparency
- Planning Coordination
- Seams Management



## VALUE PROPOSITION HISTORY

After launching the energy-only market in 2005, the value MISO adds to the region became apparent. To quantify this value, MISO – in collaboration with its stakeholders – created the MISO Value Proposition. The annual Value Proposition study began in 2007 and quantifies the value MISO provides to the region, including MISO market participants and their customers.

The Value Proposition breaks MISO's business model into recognized categories of benefits and calculates a range of dollar values for each defined category.

**From 2007 through 2019, the Value Proposition studies revealed that the MISO region realized an estimated \$26.9 billion in cumulative benefits.**

The Value Proposition and its calculations, assumptions and supporting information are publicly available at [www.misoenergy.org](http://www.misoenergy.org).

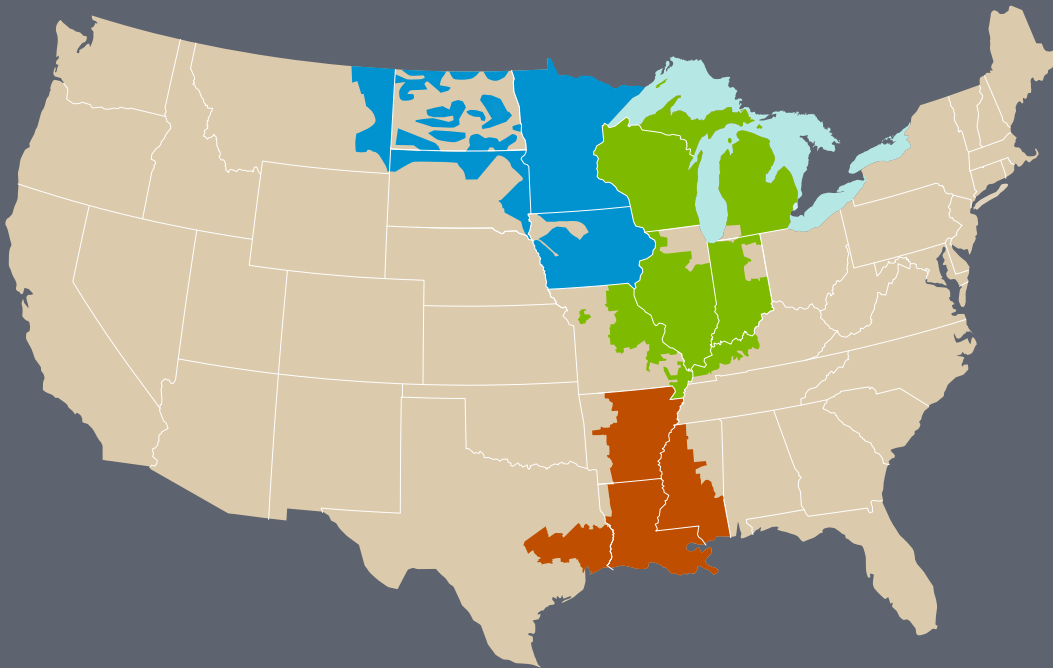
## VALUE DELIVERED

**MISO ensures reliable operation of and equal access to high-voltage power lines in 15 U.S. states and the Canadian province of Manitoba.**

MISO manages one of the world's largest energy markets, covering 965,000 square miles and delivering over 700 terawatt-hours of energy annually to millions of homes. The not-for-profit 501(c)(4) organization is governed by an independent Board of Directors, and is headquartered in Carmel, Indiana.

MISO's Value Proposition continues to document the billions in annual savings its collective efforts unlock for the region. In 2019, those efforts provided between \$3.2 billion to \$4 billion in regional benefits, driven by enhanced reliability, more efficient use of the region's existing transmission and generation assets and a reduced need for the addition of new assets.

MISO's Value Proposition affirms its core belief that a **collective, region-wide approach** to grid planning and management delivers the greatest benefit.



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