

Organized Wholesale Markets Benefits

Organized wholesale markets provide significant customer, societal, and environmental benefits which can be maximized when well-designed and well-implemented under the operation of a Regional Transmission Organization or Independent System operator (RTO/ISO).

Innovation

RTOs and ISOs operate technology-neutral and non-discriminatory competitive markets with open access to transmission and price transparency, providing companies with greater flexibility and certainty, which in turn fuels investment.

80%

[of total U.S. installed utility scale solar and wind energy](#)

73%

[of large-scale battery storage power capacity are in RTOs/ISOs](#)

Emission Reductions

Emission reductions can be achieved faster and more economically through a centrally optimized market by enabling the deployment of low-cost clean energy.

Markets catalyze clean energy deployment even in regions without 100% clean energy goals

ERCOT added over [23 GW](#) of wind and solar capacity beyond [Texas's 2025 RPS target](#) of 10 GW

CO₂ emissions in SPP have [fallen 21% since 2014](#)

Transparency

RTOs/ISOs provide information on market prices, fuel mix, resource operations, transmission congestion, resource operations, and emissions.

Customers rely on transparency to make educated decisions on their energy needs and perform needed due diligence to enter long term power purchasing agreements

Economic Development

When customers are able to procure more cost-effective, cleaner energy through competitive markets it has a ripple effect on the regional economy.

A Southeast RTO/ISO could create about [a million new jobs](#) in the electricity sector by 2040

Customer Options

RTOs/ISOs enable generation competition and greater clean energy integration, which translates to more options to meet customers' preferences.

Large energy buyers can enter into market constructs directly with clean energy developers through market constructs like virtual power purchase agreements (VPPAs)

82%

[of corporate deals are in RTOs/ISOs](#)

Transmission Facilitation

Transmission investment and operation are more efficient and economic when managed regionally. New transmission capacity can enhance the performance and economic benefits of new and expanded energy markets.

Every dollar SPP directs toward transmission expansion returns at least [\\$3.50 in benefits](#)

Transmission enhancements in PJM reduce costs by nearly [\\$300 million a year](#) by alleviating congestion

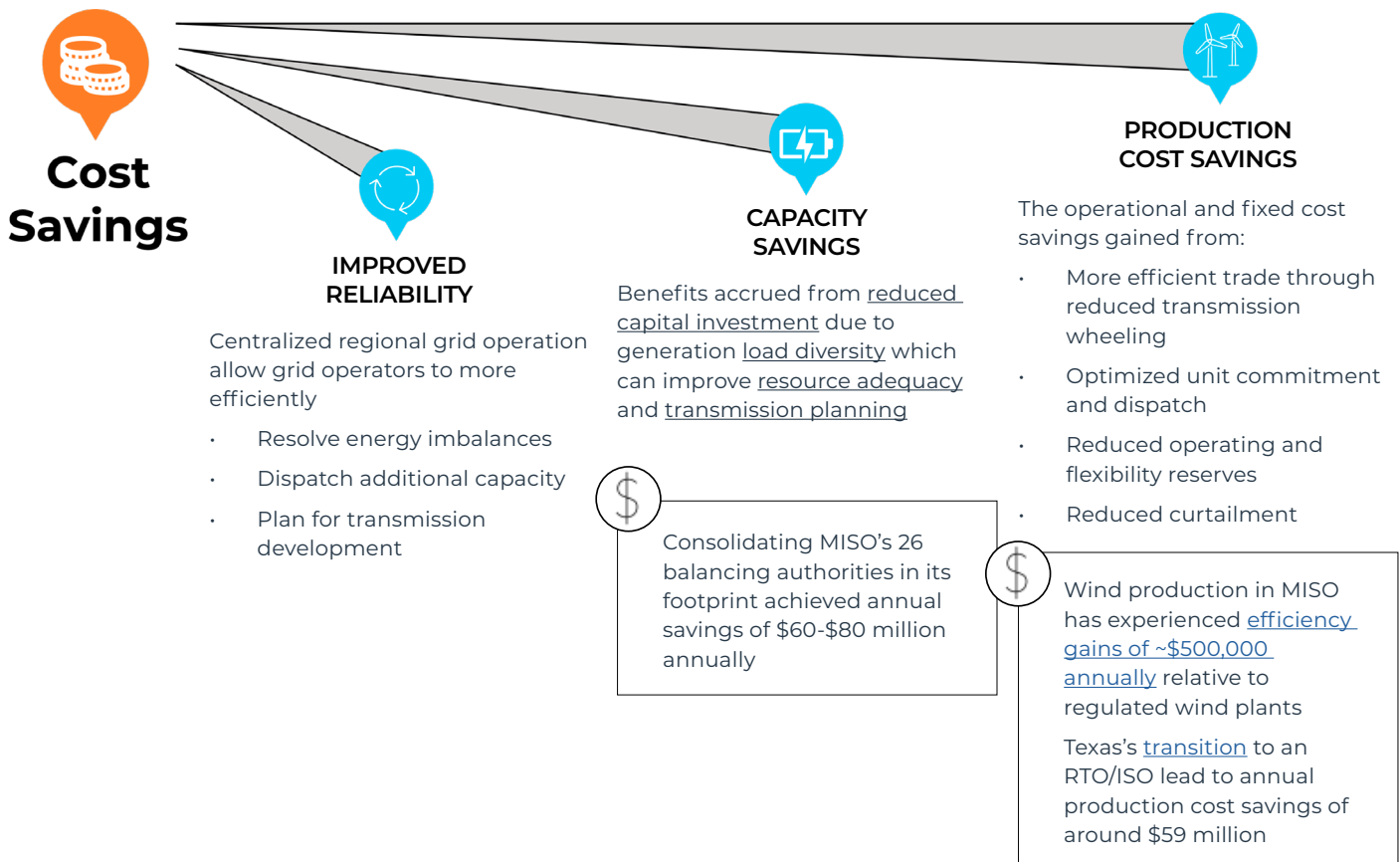
Organized Wholesale Markets Improve Regional Coordination

- Optimizes the use of generation resources
- Able to resolve energy imbalances more efficiently in times of shortages which strengthens reliability
- Improves resource integration through balancing authority consolidation
- Improves interregional transmission planning and cost allocation
- Provides access, transparency, and a common language for electricity and emissions data

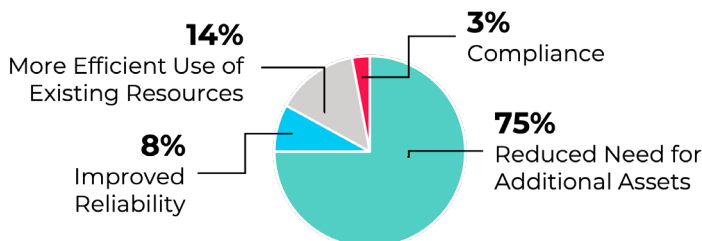
Balancing Authority Consolidation:

RTOs/ISOs centralize grid operation across regional balancing areas and provide control over a larger, more diverse resource mix. Balancing resources over larger geographic areas reduces renewable curtailment, enhances renewable integration, allows maximum sharing of ancillary services, and reduces investment in generation reserve capacity, protecting customers electricity bills from excess generation build-out.

Organized Wholesale Markets Save Participants Billions



MISO \$3.1-3.9 billion in annual benefits



PJM \$3.2-4 billion in annual benefits

