

# **Organized Wholesale Markets Explainer**

Organized wholesale markets are centrally managed markets that provide a platform for transparent and competitive wholesale electricity trading. The most advanced markets are operated by a Regional Transmission Organization (RTO) or Independent System Operator (ISO).

#### Wholesale markets

refer to the purchase and sale of electricity among generators and energy suppliers, along with services needed to maintain power reliability and quality.

### **Organized Wholesale Markets include**

Real-time energy trading

Day ahead energy markets

Resource adequacy

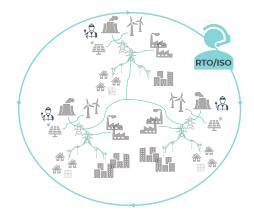
Transmission planning

Reliability

Interconnection to the grid

Ancillary services to support grid functioning

Governance and stakeholder processes



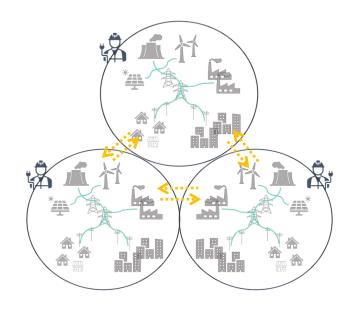
# Regional Transmission Organization (RTO) and Independent System Operator (ISO)

- Independent entities overseen by the Federal Energy Regulatory Commission (FERC)
- Operate organized wholesale markets
- Coordinate power balancing across multiple utility service territories while dispatching least-cost generation first and ensuring reliability
- Manage transmission assets regionally
- Establish a governance structure to guide decision making and public input

### Without an RTO/ISO

Utility planning is siloed, and coordination and resource sharing are voluntary. Utilities may opt into incremental market offerings like a day-ahead market, but customers won't experience the full range of benefits that are available under an RTO/ISO.

Utilities often act as the balancing authority of their service territory by ensuring electricity supply and demand always match.

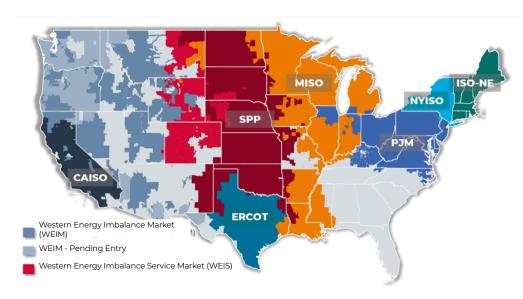


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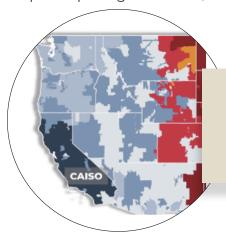
There are seven RTOs/ISOs covering two-thirds of the country, providing electricity to over 200 million consumers.

Incremental market structures are being developed in some non-RTO/ISO areas. For example, the Western Energy Imbalance Market (WEIM) currently provides one element of an organized market, real-time trading, and is expanding to offer dayahead trading.



### **Expanding Organized Wholesale Markets**

RTOs/ISOs do not currently exist in the Southeast and West, with the exception of the California Independent System Operator (CAISO). The utilities operate in traditional bilateral and non-transparent wholesale markets and therefore have limited regional engagement. Customers in the West and Southeast would benefit from a range of market reform options, including a full RTO/ISO. Recent studies conclude the regions are missing out on billions of annual savings by not participating in an RTO/ISO.



The West is comprised of 34 balancing authorities. Consolidating the region under one RTO/ISO could save **\$2 billion** in annual gross savings by 2030 and <u>reduce renewable energy curtailment</u> by 33% more than a day-ahead market.

By 2040, compared to business-as-usual, a <u>Southeast RTO/ISO</u> could save a cumulative **\$384 billion** in costs, reduce retail rates by 29%, and lower emissions by 37% from 2018 levels.

