



Regional Transmission Organizations

The transmission of electricity has changed in the last several years. Whereas utility companies formerly owned every step of electric delivery, from generation to distribution, regulatory changes in the 1990s introduced third-party buyers and sellers into the electric utility industry. These new players brought about discussion on fair access to transmission grids. Among the results of these discussions was the Federal Energy Regulatory Commission's (FERC) decision to authorize the creation of regional transmission organizations (RTOs). Today, RTO's have become a proven resource for delivering value to ratepayers.

What is an RTO?

An RTO is defined as "an independent organization (profit or non-profit) established for the purpose of operating the transmission assets and providing wholesale transmission services within a defined (usually multi-state) geographic region."¹ Membership in an RTO is voluntary and the decision to join is left to each utility and its regulators. RTOs do not assume ownership of transmission systems from their member utilities, but they do control grid access, facilitate power purchases, and assist in planning for future expansion of a transmission grid.

RTOs were created as a result of FERC Order 2000.² The order lists certain characteristics that a transmission organization must have to be considered an RTO. The four minimum characteristics are:

- "Independence from market participants"³ – This is ensured using three further qualifications: Neither the RTO, nor any of its employees or stakeholders, are allowed to have a financial stake in any entity that participates in the energy market; the decision-making process of the RTO cannot be controlled by any market participants; the RTO must have the authority to make filings with FERC.
- "Appropriate scope and regional configuration"⁴ – The region of service must be configured so that the RTO can efficiently serve its member utilities and perform its necessary functions.
- "Possession of operational authority for all transmission facilities under the RTO's control"⁵ – The RTO must be able to access and make decisions for all of the transmission facilities that it oversees.

¹ Port, Kevin. "The Implications of Regional Transmission Organization Design for Renewable Energy Technologies" - <http://1.usa.gov/lXjeav>

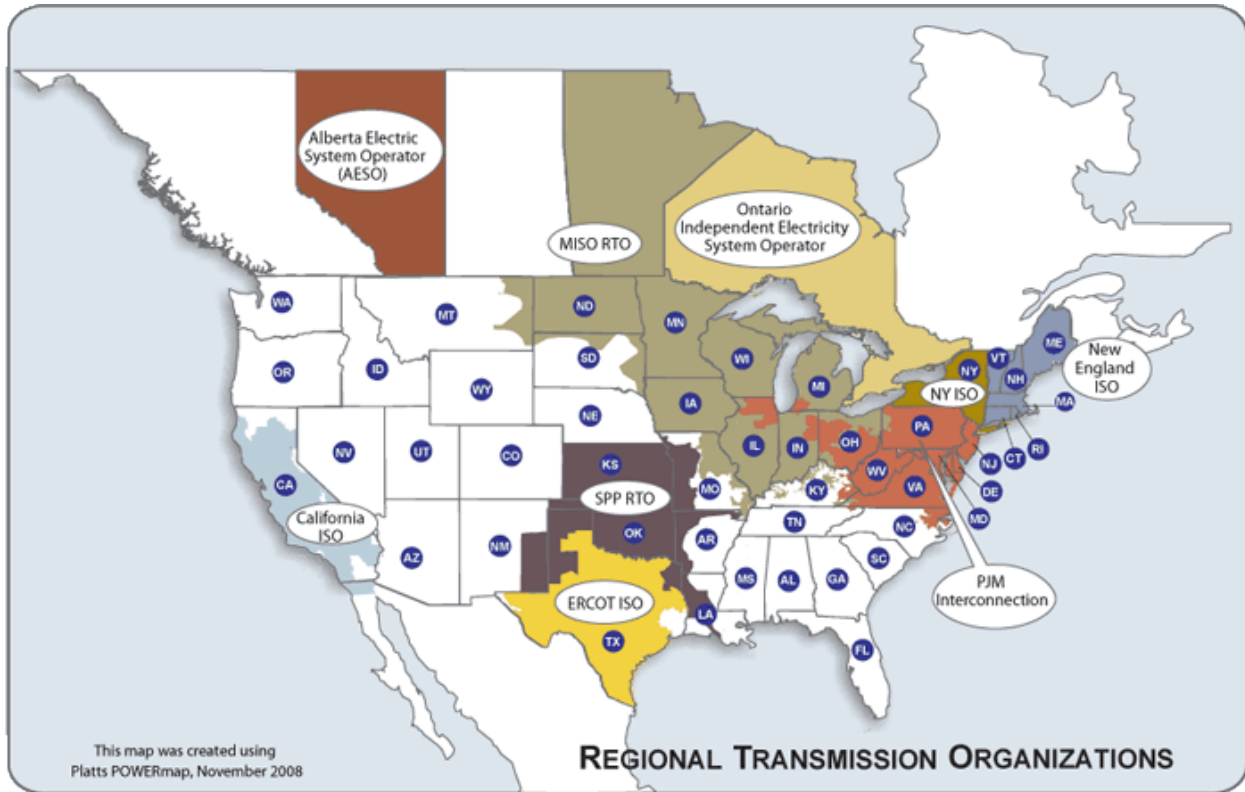
² FERC Order 2000 <http://1.usa.gov/jVCOSj>

³ *Ibid.*

⁴ *Ibid.*

⁵ *Ibid.*

- “Exclusive authority to maintain short-term reliability”⁶ – This characteristic gives the RTO the authority to control the distribution of power and maintain reliability on a day to day basis.



RTOs in North America ⁷

Day Ahead Markets

One of the most innovative advances that many RTOs offer their members is the Day Ahead energy market. The function of this market is to match buyers and sellers of wholesale electricity in a centralized bulk power market that allows for the purchase of power at the lowest possible market rate, and provides a mechanism to dispatch that power from a generator to a utility operator. The larger the geographic footprint that is covered by an RTO the greater the number of market participants, diversity of peak energy use seasons, sources of generation fuel, and number of independent power producers. This use of market forces as the driver for the purchase and dispatch of electricity to meet regional demands is one of the primary factors behind the efficiencies created by RTOs.

⁶ *Ibid.*

⁷ FEREC: <http://1.usa.gov/iVY38t>



Benefits of Membership in an RTO

Joining an RTO can provide tremendous benefits to utilities and their customers. According to the ISO/RTO Council, “regional markets optimize the power grid by promoting efficiency through resource sharing.”⁸ The sharing of resources allows for more efficient operation, which can lower prices and increase service reliability. RTOs can create a more stable grid as they have the capabilities to divert power away from malfunctioning areas, and the centralized dispatch of power can have reliability advantages over non-centralized systems. The Institute for Operations Research and the Management Sciences (INFORMS) recently highlighted the benefits that RTOs bring to member utilities and their customers when it recognized the Midwest Independent Systems Operator for innovating operational efficiencies, largely through MISO’s Day Ahead Energy Market that created over \$3 billion in cost value from 2007-2010.⁹

Since Mississippi has electric rates lower than the national average,¹⁰ an important consideration in RTO membership for Mississippi utilities is keeping costs at similar or even lower levels. RTO membership has thus far shown to be a method for keeping records low, particularly those with Day Ahead markets.

Mississippi and RTOs

During the early part of the 2000’s, Mississippi participants were among several utilities in the Southeast that attempted to realize the potential benefits of RTOs by creating SeTrans, a proposed RTO for the Gulf States that never got off the ground. Despite SeTrans not forming, several RTO’s were built in other regions of the country over the past decade. Recently, the RTO opportunity resurfaced in Mississippi with the April 25, 2011 announcement that Entergy Mississippi, Inc. will become a member of the Midwest Independent Transmission System Operator (MISO).¹¹ On May 12, Entergy Mississippi further detailed the anticipated benefits the move to MISO will bring its customers.¹²

According to the company, projections show benefits for customers ranging from \$242 million to \$284 million from 2013-2022. These benefits are mostly related to the larger and more efficient purchasing market operated by MISO. Advance Mississippi recently noted that Mississippi ratepayers pay significantly less for electricity than most of the nation, providing many advantages to economic development officials as well as those paying electric bills in the state. An important part of continuing to bring new industries to the state is ensuring that energy prices remain as low as possible. Entergy Mississippi has shown that membership in MISO will allow them to take advantage of savings and benefits that will keep prices down and provide affordable rates for their customers.

⁸ ISO/RTO Council. “Ten Reasons ISOs/RTOs are Good for North America.” <http://bit.ly/oUyAe7>

⁹ Midwest Independent Transmission System Operation News Release: “MISO Wins International Award for Innovation in Deregulated Wholesale Energy Markets” 04/12/2011 <http://is.gd/FnWIZN>

¹⁰ Advance Mississippi Issue Brief: “Mississippi’s Affordable Energy Prices” <http://bit.ly/nJonVs>

¹¹ Entergy Mississippi, Inc. News Release: “Entergy Mississippi Announces Compelling Customer Benefits with Proposed Move to Midwest Independent Transmission System Operator” 04/25/2011 <http://is.gd/Mt3Fp2>

¹² Entergy Mississippi, Inc. News Release: “Entergy Mississippi Details Benefits of Midwest Independent System Operator” 05/12/2011 <http://is.gd/2N1J3x>



About MISO

MISO was approved by the FERC as the nation's first RTO in 2001. Currently, MISO oversees more than \$17 billion in transmission assets and 134,850 MW of generation capacity¹³ in 12 states and the Canadian province of Manitoba. In a recent study commissioned by the Entergy State Regional Committee (ERSC), MISO's market participants said they found, "significant improvement," in most categories since becoming a member of MISO. Survey respondents included state regulators, independent power producers, utilities, and others.¹⁴

Conclusion

RTOs are the latest development in large scale transmission operation and dispatch, and have demonstrated their ability to create cost saving efficiencies for their member utilities. Though the first attempts to bring RTO's to Mississippi were unsuccessful, Entergy Mississippi has studied the latest opportunity to join a RTO and determined that it is in the best method for meeting the company's short- and long-term needs; citing an advanced energy market and expected value for the company's ratepayers. While it cannot be presumed that RTO's will bring value to all Mississippi utility companies, and such a calculation would have to be made on a case-by-case basis, they do provide a proven record of delivering efficiency-driven cost benefits to their members' customers, which could be a resource in keeping Mississippi rates among the lowest in the nation.

Additional Resources

Federal Energy Regulatory Commission

<http://www.ferc.gov/>

Mississippi Public Service Commission

<http://psc.state.ms.us/>

Midwest Independent System Operator

<http://www.midwestiso.org/>

Advance Mississippi's mission is to advocate for sensible energy policy that will fuel economic opportunity in Mississippi, and educate policy makers, business and community leaders, and the general public about superior energy policies that will foster economic growth. Entergy Mississippi is a member of Advance Mississippi. For more information, visit www.advancemississippi.com.

¹³ MISO Corporate Fact Sheet - <http://bit.ly/qMd9LT>

¹⁴ Midwest Independent Transmission System Operation News Release: "Survey: MISO Market Participants Continue to be Satisfied with Performance." 8/25/11 <http://bit.ly/qjFMBS>