

Monitoring the Electricity Markets

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and Bob Pauley

Indiana Utility Regulatory Commission

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Regional Transmission Companies Provide The First Line Of Defense For Monitoring The Electricity Markets

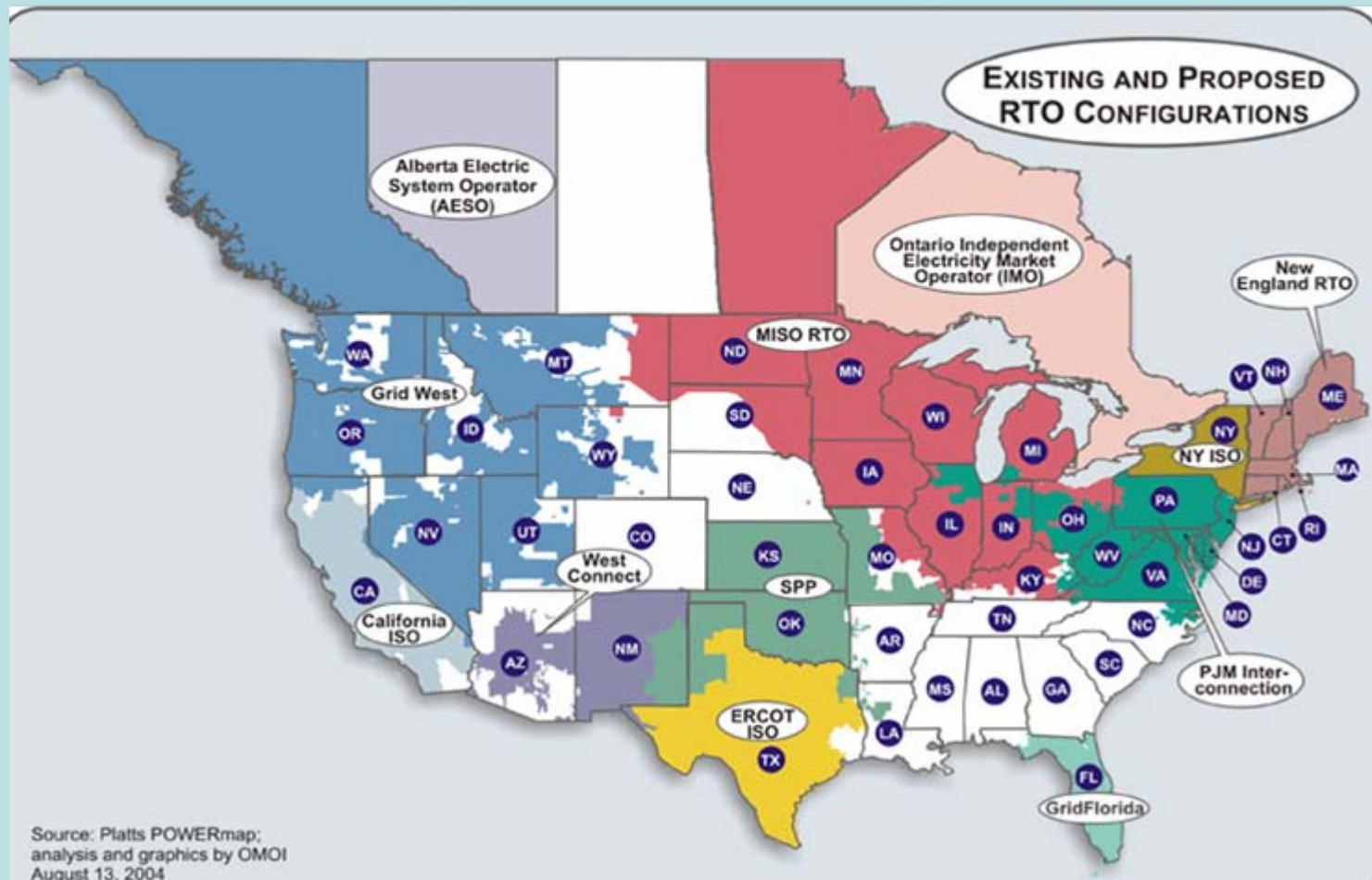
- RTOs are intended to prevent unreasonable discrimination in the use of the transmission system
- RTOs are intended to enhance reliability and reduce the need for regulatory oversight and intervention
- RTOs are designed to improve economic efficiency
 - Optimal use of the transmission system
 - Optimal use of electric generating units
 - Optimal use of demand management and conservation
- Because RTOs provide “transparent” real-time prices, regulatory oversight is more easily accomplished
- RTOs, because they have a regional planning perspective that includes active involvement by regulatory commissions and stakeholders, should provide substantial long-term cost savings and increased reliability. For example, in this region, a 15% reserve margin can be achieved if utilities maintain approximately an 11% reserve margin.
- All of these factors help state commissions ensure that customers are getting reliable service at the lowest cost reasonably possible.

Market Monitoring Is Essential

- Even with RTOs, there is a need to monitor the markets to prevent a reoccurrence of “ENRON” type abuses
 - There is a need for more than “one set of eyes” and for truly Independent monitoring of the electric and natural gas markets
 - One of the long-term risks to the market is the number of mergers and acquisitions. Competition becomes increasingly difficult as the number of competitors diminishes.
 - Ideally, market oversight would prevent market power abuse. However, when market manipulation occurs, there is a need to take decisive action as quickly as possible



RTOs In The United States



A Great Deal Has Changed Since The Blackout Of August 2003



Preventing Undue Discrimination

- The electric grid in the United States evolved from individual utilities being “islands.”
- The U.S. has a history of undue discrimination in the use of the transmission system.
- The Federal Energy Regulatory Commission requires “Open Access Transmission Tariffs” – Similar to the Golden Rule: *“Do Unto Others As You Would Have Them Do To You.”*
- FERC has a Notice of Proposed Rulemaking that is intended to address remaining discriminatory practices. This should be intended for non-RTO regions where it is thought that undue discrimination still occurs on a more regular basis. However, the FERC has made it applicable to all regions.

IMPROVED RELIABILITY

- The August 14, 2003 Blackout served as a “Wake-Up Call.”
- During late July and early August 2006, most of the U.S. experienced high temperatures, often record high temperatures. Both the PJM and MISO set record peak demands.
- The PJM and MISO were able to communicate effectively and manage the systems without curtailments despite outages at some major generating facilities during this extraordinary peak period.
- RTOs were able to reduce constraints on the transmission system that, historically, would have caused curtailments (e.g., rolling blackouts) of transactions.

Improved Economic Efficiency

MATHEMATICALLY EVERY UTILITY WILL BENEFIT AND NO UTILITY WILL BE WORSE OFF

Our economic analysis projects that the introduction of centralized security-constrained economic dispatch using Locational Marginal Cost Pricing (LMP) will result in annual gross production cost savings of approximately \$255 million throughout the Midwest ISO region. Furthermore, the implementation of regional dispatch will allow for more efficient use of the existing transmission and generation assets, which should not only lower spot energy prices, but also put downward pressure on prices in bilateral contracts, resulting in a potential annual gross savings of approximately \$713 million to energy consumers.

Dr. Ron McNamara of the Midwest ISO

This does not include the expected substantial cost savings resulting from better regional planning of new generating units (including meeting new stringent environmental requirements), transmission facilities and the utilization of demand-response programs, or the \$113 – \$208 million in gross benefits from the implementation of the Midwest ISO's ancillary services market.

Price Transparency

- For markets to function well, accurate prices need to be observable to all.
- Investors in energy infrastructure need this information to make informed decisions about generation, transmission, and demand response.
- Customers need this to allow them to make informed choices about their energy use.
- Effective monitoring of the markets requires transparent prices to reduce the potential for abuse and anticompetitive behavior



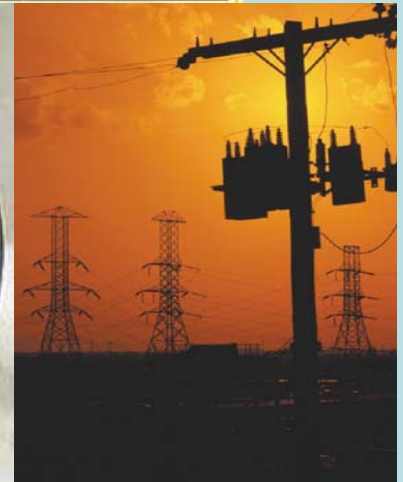
Comprehensive Regional Planning

- Non-discriminatory transmission planning requires an open process.
- Transmission must be evaluated in context of all cost-effective alternatives such as generation and demand response.
- Investment decisions driven by reliability and economic efficiency are interrelated and both should be considered.
- Pricing transmission ought to be as simple as possible but as complex as necessary while also being as fair, efficient, and enable the owners of the facilities to recover sufficient revenue.



How Do We Assure That Supply Will Be Equal To Or Greater Than Demand?

- Incentives have been proposed as a means of encouraging new cost-effective investment.
- Do we need to do more to assure that adequate generation, transmission, distribution, and demand response programs will be built on a timely basis?



It Used To Be A Lot Easier To Build Generating Units

- Economies of Scale
- Environmental Restrictions
- Fuel Availability and Costs
- Restrictions on Location

MARCH 12, 1887. THE ELECTRICAL WORLD. V



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EDISON ELECTRIC LIGHT COMPANY,
By EDWARD H. JOHNSON, President.