



MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR, INC.

**P R E S S   R E L E A S E**

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CONTACTS: Gary Rasp  
(317) 432-4507  
Colleen Matthews  
(317) 432-3787

## **Improved State Estimator Gives Midwest ISO Most Comprehensive View of Power Grid**

*State-of-the-art Computer Program Increases Real-Time  
Monitoring Capability and Enhances Reliability*

CARMEL, IN – The Midwest ISO has completed installation of a state-of-the-art computer system that provides control room operators the largest and most in-depth view of the Eastern Interconnection, with a focus on the electric transmission grid that stretches from Pennsylvania to Nebraska and from Tennessee to the Canadian province of Manitoba.

The computer model – called a “State Estimator” because it provides operators with the current state of conditions on the power grid – has been operational since December 31, 2003. The system is the primary tool the Midwest Independent Transmission System Operator, Inc. (Midwest ISO) uses to monitor the flow of electricity over transmission lines throughout much of the Midwest U.S.

“Implementation of the State Estimator model is a key operational milestone that reaffirms our commitment to ensuring the safe and reliable transmission of electricity,” said James P. Torgerson, president and CEO for the Midwest ISO.

“We now have the capability to continuously monitor conditions not only within our region, but in neighboring areas, as well,” Torgerson added. “This is a significant stride forward in enhancing reliability.”

The State Estimator features a sophisticated mathematical formula that rapidly digests raw data from tens of thousands of points along the power grid. The data is fed into a computer to develop a series of contingency analyses for potential events that could compromise system reliability.

As a result, control room operators now have a more comprehensive, big-picture look at the evolving condition of the grid on a real-time basis, enabling them to pinpoint potential problem areas, and take necessary action to maintain reliability.

“Quite simply, the State Estimator helps us do our job better,” said Torgerson. “It provides the most comprehensive monitoring of any electric transmission grid ever achieved.”

The Midwest ISO’s State Estimator model, the largest such system in the world, includes more than 30,000 network busses – substations where transmission lines come together – and approximately 87,000 Inter Control Center Protocol (ICCP) data points that are monitored every 30 seconds.

In addition to installation of the State Estimator model, the Midwest ISO has implemented a number of other measures to enhance system reliability. Those enhancements include:

- Increasing by 50 percent the number of flowgates into its backup monitoring tool to better gauge power flows on critical transmission lines;
- Installing an expanded video projection system in the Midwest ISO Control Room;
- Improving filtering of alarming systems to more effectively detect system imbalances or operating condition deficiencies; and
- Executing a Joint Operating Agreement (JOA) to dramatically increase the exchange of data and improve communication between the Midwest ISO and PJM.

“Our goal is to make the Midwest ISO the premier RTO in the world,” Torgerson said. “These measures further reinforce our continued commitment to the safety and reliability of the transmission system under our stewardship.”

### **About the Midwest ISO**

*The Federal Energy Regulatory Commission approved the Midwest ISO as the nation’s first Regional Transmission Organization (RTO) on December 20, 2001. The Midwest ISO, in its role as an RTO, monitors electric reliability throughout the Midwest – an area that encompasses more than 110,000 miles of interconnected high voltage transmission lines in 15 states and one Canadian province. The Midwest ISO is responsible for coordinating the operation of the wholesale electric transmission system and ensuring fair access to the grid. For more information on the Midwest ISO, visit [www.midwestiso.org](http://www.midwestiso.org).*