Midwest Transmission Planning

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Who’s Planning for Transmission in the Midwest?

- MISO
- PJM
- TVA
- 24 TOs and ITCs in MISO
- 10 TOs in PJM
Perspectives of Transmission Owners

- Have obligations to reliably serve load responsibilities
- Develop least cost plans to meet reliability needs
- Focus is on local service territory
Perspectives of RTOs

- Charged with ultimate coordinated planning responsibility for region
- Identification of both reliability and commercially beneficial expansions
- Focus is on integrating regional needs for benefit of electricity customers
MISO Regional Plan

- **First Midwest ISO 5-Year Transmission Expansion Plan (MTEP) issued June 2003**
  - Identified regional expansion concepts to reduce congestion, facilitate new generation
  - $1.8 billion planned for reliability
  - Mostly local reliability plans
  - 85% of new transmission at 230 kV and below
Top MISO CONSTRAINTS CAUSING ECONOMIC CURTAILMENTS

MISO CALLS 65% of ALL CURTAILMENTS in EASTERN INTERCONNECT
Key Findings from 1st Plan

- Forecast LMP differentials between regions indicate potential for market transactions that will be constrained with the planned system.
- System can accommodate addition of gas generation with less congestion than other scenarios.
- Gas price volatility could result in large increase in marginal energy costs.
- New coal and wind resources could mitigate gas price effect.
Key Findings from 1st Plan

- New coal and wind resources are in constrained or remote locations.
- Planned transmission system cannot accommodate most efficient existing and new units possible.
- New transmission enables dispatch of more economic resources, with reduction in wholesale prices to consumers.
- Benefits can extend beyond MISO footprint.
In Summary

- Grid generally meets reliability standards
- Grid is congested, and does not provide access to available renewable and low cost resources
- Grid is highly interconnected
  - Reliability Impacts
  - Economic Impacts
- Independent regional planning perspectives provide
  - Independent assessments of reliability needs
  - Unbiased macro view of economic benefits of regional transmission and non-transmission solutions to congestion
Prospects for Needed Expansion

• Joint RTO planning with a macro-view will identify needs to maintain reliability and reduce customer energy costs

• Need protocols in transmission tariff to include economically beneficial projects in regional plans

• Regulatory help in developing and endorsing comprehensive regional expansion and cost recovery policies, and in facilitating the construction of identified needs