

# Electric Delivery in the 21<sup>st</sup> Century

**Discussion  
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**The discussion points herein include the personal views of Stephen J. Beuning, Director Market Operations, Xcel Energy and may not reflect the official positions of Xcel Energy. Phone 303-571-2711**

# Market Optimization is Good

- ▶ **Situational awareness and response to grid contingencies**
- ▶ **Production cost optimization for energy dispatch**
- ▶ **Variable resource diversity benefits through pooled balancing**
- ▶ **Information inputs to transmission planning decisions**

# Small Needs Big

- ▶ **Future integration of distributed resources will rely upon good bulk electric wholesale markets for efficient results**
- ▶ **DG/DR creates issues with proper cost allocation**

# Caution: Philosophy Battle!

- ▶ **Grid access policy conflict remains:**
  - ▶ **Concepts of regional network access**
    - ▶ Regional/zonal delivery view vs. POR/POD view
  - ▶ **Regional investments cause trend toward postage stamp design, with funds allocated to grid owners**
  - ▶ **RTO-to-RTO charges for transmission service**
    - ▶ PJM/MISO waived
    - ▶ MISO/SPP disputed
    - ▶ CAISO/EIM assigned path rights
  - ▶ **Market-to-Market dispatch practices differ**
- ▶ **Transmission customer bill of rights?**

**END**

