Transmission Planning in the Eastern Interconnection – Wisconsin’s Perspective

Brian Rybarik
Public Service Commission of Wisconsin
(608) 267-7899

January 31, 2011
State Climate and Energy Program Webinar
Overview

1. Wisconsin experience: RTO/ISO and regional planning
2. Wisconsin/state motivation for participation in EISPC
3. Two key drivers for participation
   a. Process
   b. Data/Information
Wisconsin’s Participation in Transmission Planning: A Head Start?

- Wisconsin utilities and the Commission engage in regional planning done at the Midwest ISO (Order 890 etc...)
Regional Action

2009/2010: Regulators from the Organization of MISO States (OMS) worked on Cost Allocation and Regional Planning
CARP provided insights

1. Recognize Inter-dependence

2. Potential Changes in Generation Portfolio
   – Changes in Transmission Strategy
   A. RPS Requirements
   B. Carbon and other emission limits
      (Congress/EPA)
   C. Other Policy Initiatives (efficiency etc…)

3. Economies of Scale
Wisconsin – Why might regional viewpoints be important?

Wisconsin Utility Energy

- Nuclear: 38%
- New Coal: 23%
- Old Coal: 28%
- New CT: 0%
- Comb Cycle: 0%
- Old CT: 1%
- IC Engines: 2%
- Hydro: 8%
- WIND: 0%
Wisconsin – Why might regional viewpoints be important?

Wisconsin Utility Nameplate Capacity

- Nuclear: 17%
- New Coal: 22%
- Old Coal: 22%
- New CT: 15%
- Comb Cycle: 10%
- Old CT: 17%
- IC Engines: 8%
- Hydro: 1%
- WIND: 3%
- Other: 2%
Then along comes...
ARRA creates and über-regional opportunity for states (and planning authorities)
CARP provided insights on...DOE provides framework and funding

1. Recognize Inter-dependence

2. Changes in Generation Portfolio – Changes in Transmission Strategy
   A. RPS Requirements
   B. Carbon Emission Limits
   C. EPA Rules (Transport Rule/MACT/Cooling water/etc.)
   D. Other Policy Initiatives – new clean energy standard?

3. Economies of Scale
Process Benefits

- Working with states and stakeholders we don’t normally interact with (people matter)
- Understanding the resources and constraints in other parts of the country
- **BASELINE INFRASTRUCTURE EXAMPLE**
Process Benefits

• Participating in the process helps to ensure that modeling captures the regional differences within the EI
• Participating helps to ensure that any potential modeling biases are corrected
• Goal = information
• Modeling helps policy makers identify: what might generation portfolios look like under different futures? How much transmission might be necessary? What might this all cost?
• Identification of “energy zones” in EI
• Studies/Whitepapers will provide specific information demand resources, storage, renewable potential, and other technologies for future modeling efforts
If my state is a participant – I can help decide what data is developed

Need to identify state and regional items that are important

- Example: Nuclear issues
- Example: Environmental Regulatory Curtailment
- Example: Off shore wind
The End