

Transmission Planning and Regional Cooperation – Issues and Action in the U.S.

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Public Service Commission of Wisconsin

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Drivers for New Transmission

- Reliability past/present/future
- *Economics present/future*
- Public Policy future

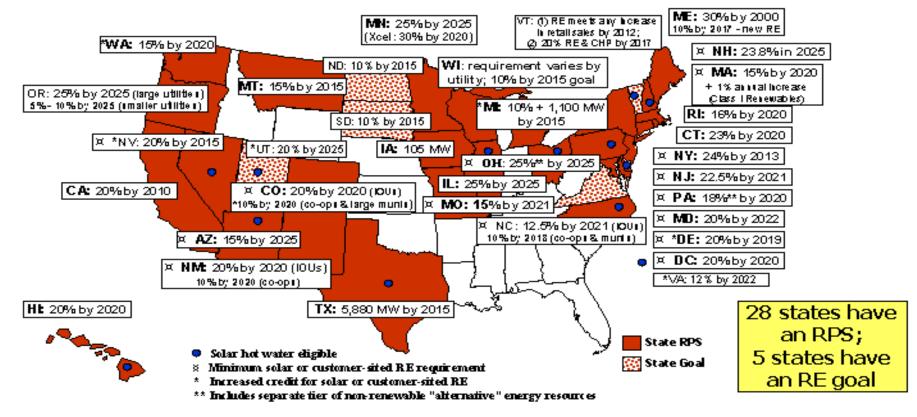
○ RPS, clean energy, climate



DSIRE: www.dsireusa.org

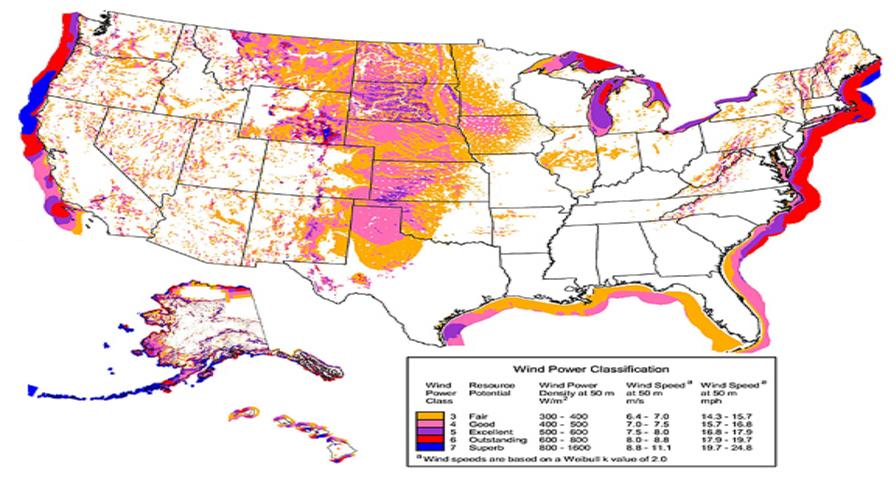
January 2009

Renewables Portfolio Standards





Wind Resources in the U.S.





Must this be so difficult? Not necessarily, but . . .

- Regulatory jurisdiction is split
 - Federal Energy Regulatory Commission (FERC) limited jurisdiction, not general; narrow authority to site transmission lines; regional planning; authority to set rates (some times)
 - States/local typically, broad authority to approve/reject a line based on need and siting issues; authority to set rates (some times) and to authorize cost recovery
- Historical parochialism
 - o No pressing need
 - o Turf wars
 - o Protectionism
 - Regulatory resource limitations



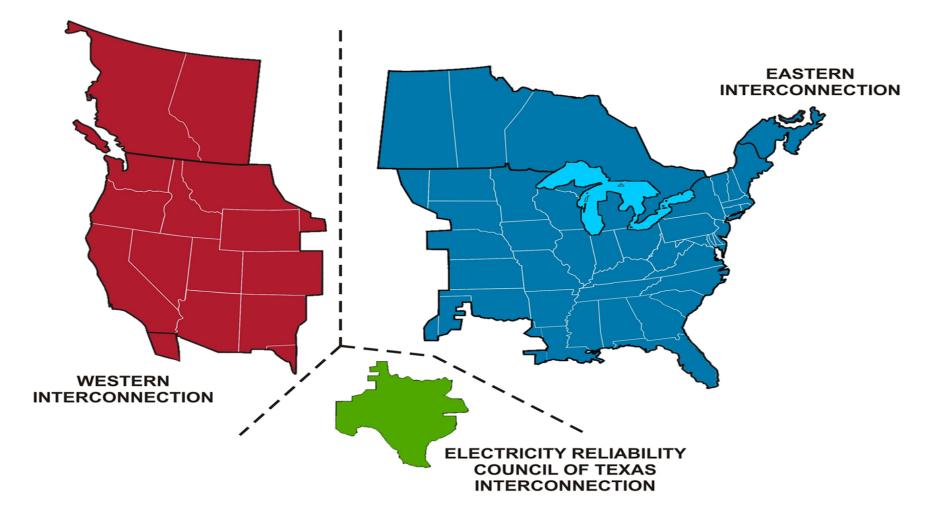
<u>2009 Funding Opportunity from the U.S.</u> <u>Department of Energy – A Unique</u> <u>Partnership</u>

"The objective of this Funding Opportunity Announcement is to facilitate the development or strengthening of capabilities in each of the three interconnections in the lower 48 states of the United States, to prepare analyses of transmission requirements under a broad range of alternative futures and develop long-term interconnection-wide transmission expansion plans."

Department of Energy, Funding Announcement



North American Electric Reliability Corporation Interconnections





EISPC (aka "Ice Pick") – What is it?

- Eastern Interconnection states, DC, Canada
- 2 representatives per state
- Interconnection-wide resource planning
- Interconnection-wide transmission planning
- Studies and whitepapers
- Works closely with Eastern Interconnection Planning Collaborative (EIPC)
- 1/3 of Stakeholder Steering Committee



TWO TEAMS IN PLANNING EFFORT

Engineering Team (EIPC)

- Planning Authorities =
 - Regional Transmission Organizations (RTO)
 - Transmission Owners
- Run models and prepare the transmission plans
- Stakeholder Steering Committee – provides strategic advice

Policymaker Team (EISPC)

- State representatives commissioners, governors' reps., SEOs, environmental agencies
- Provide inputs to modelers through Stakeholder Steering Committee
- Conduct studies and whitepapers



<u>Eight Futures+72 Sensitivities =</u> 80 Transmission Scenario Options

- 1. Business as Usual
- 2. Federal Carbon Constraint Top-Down Implementation
- 3. Federal Carbon Constraint State/Regional Implementation
- 4. Aggressive EE/DR/DG/Smart Grid
- 5. Federal RPS National Implementation
- 6. Federal RPS State/Regional Implementation
- 7. Nuclear Resurgence
- 8. Combined Federal Climate and Energy Policy



Achievements to Date

- Phase 1 modeling complete, and three Futures have been chosen for final modeling:
 - Nationally implemented federal carbon constraint with enhanced energy efficiency and demand response - the large buildout bookend (40 GW additional transfer capability)
 - Regionally implemented national RPS scenario the middle buildout (3 GW)
 - Business as usual the small (none) buildout (0 GW)
- EISPC studies and whitepapers continue
- The "Process" itself:
 - o We're still engaged
 - o Consensus
 - Reasonable openness about the final product



Other Regional Planning Initiatives and Drivers

- Federal
 - o FERC Order 1000
 - FERC/DOE initiative on National Interest Electric Transmission Corridors (NIETC)
- Regional
 - Midwest Independent Transmission System Operator (MISO) Multi-Value Projects (MVPs)
 - o Upper Midwest Transmission Development Initiative (UMTDI)
- Bilateral
 - Wisconsin/Minnesota cooperation