# Using FERC Order 1000 to Better Integrate Variable Energy Resources into the Grid

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### What Is the Sustainable FERC Project?







#### **FERC Order 1000**

- Applies to all public utility transmission providers – RTOs/ISOs and all other FERCjurisdictional utilities.
- Requires procedures to implement: <u>regional</u> <u>planning</u>; <u>cost allocation</u> for regional projects; <u>interregional coordination</u> and <u>cost allocation</u>; and removal of the incumbent utility <u>right of</u> first refusal to build projects.





### Applies to all RTOs/ISOs and FERC-Jurisdictional Transmission Providers

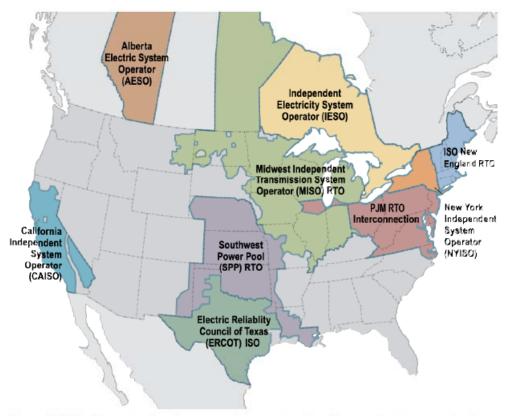


Figure 22-2. Independent system operators and regional transmission organizations of North America





### Why Did FERC Act?

- Regional planning may reveal system needs and solutions to those needs that are more <u>cost-</u> <u>effective</u> and <u>efficient</u> than local/sub-regional solutions.
- Likewise, <u>interregional coordination</u> may reveal interregional solutions that are more cost-effective and efficient than regional solutions.
- Failure to identify and select these solutions could lead to unjust and unreasonable rates.





### Our Interests

(Order 1000 Addresses All of These)

- 1. Full consideration of federal, state and local public policy requirements and other important clean energy policy objectives that drive system needs; and implementation of solutions to address those needs.
  - Examples: State RES, EEPS, water and other environmental protection laws, retail demand response and other programs.





### Our Interests (Order 1000 Addresses All of These)

- 2. Identification and evaluation of <u>non-wires</u> <u>solutions</u> on a comparable basis to wires solutions that could meet system needs more cost-effectively and efficiently than a wires solution.
  - Optimally, cost recovery for non-wires solutions not required now.
  - Or, state utility commission approval/ guidance/direction to implement them.





### Our Interests (Order 1000 Addresses All of These)

- 3. Meaningful opportunities for stakeholder involvement in the system planning process.
  - Actions that the planning regions will take to consult with stakeholders, timelines for consultations, matters subject to consultation.

Bottom Line: A Prudently Designed Planning Process Can Lead to More Cost-Effective and Efficient Solutions (and Help Integrate Renewables)





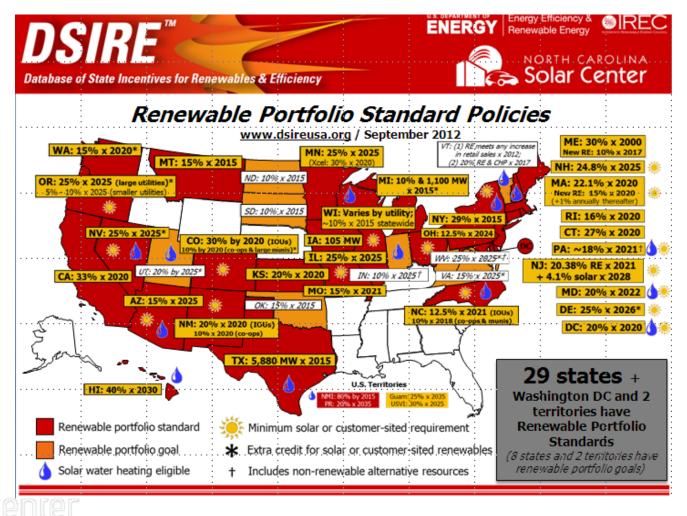
### **Key Order 1000 Opportunities**

- State 
   Regional: Require states to use regional planning to help to meet their planning and resource adequacy goals.
  - PUCs to require state utilities to use regional planning as a tool to better meet state plans.
  - Regional planning can identify solutions that accommodate state resource plans and goals.
  - RTOs and others should provide state commissions all relevant system information through standard data requests.





## State Renewable Energy Standards – Finding Regional Solutions . . .



for electricity innovation

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#### ... At a Lower Cost

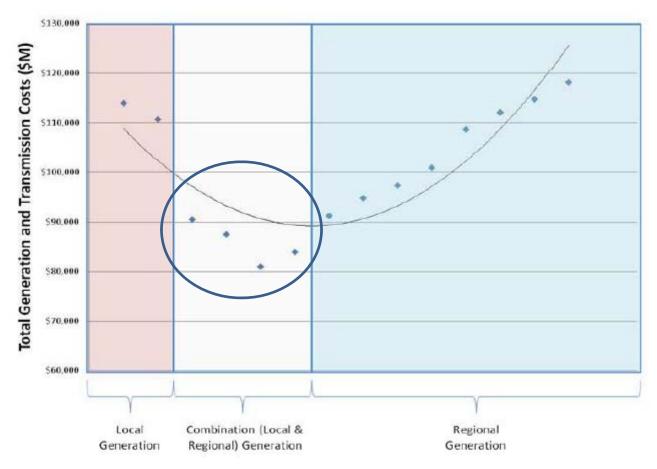


Figure 4.1-9: Capital costs of transmission and generation

Source: MISO MTEP-11, at p. 54.





### **Key Order 1000 Opportunities**

- Regional →State: Use regional planning to identify distribution system (state-regulated) and non-wires solutions (frequently stateregulations) that can meet regional system needs more cost-effectively and efficiently than transmission solutions.
  - Example: Energy Efficiency as a Resource
  - Can help shape retail market design and planning.

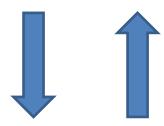




### **Key Order 1000 Opportunities**

 Use planning to improve markets and programs, and vice versa.

Regional System
Planning



Wholesale Markets and Retail Programs





### **Interregional Planning**

 Reveal opportunities for cost-effective and efficient delivery of renewable energy resources between regions.





### NREL's Renewable Energy Futures Study (2012)

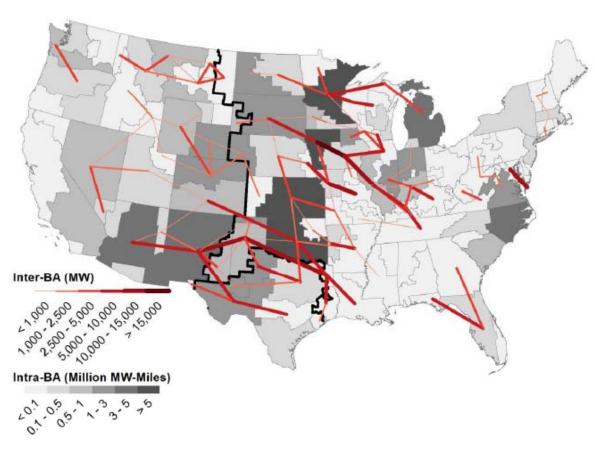


Figure ES-9. New transmission capacity additions and conceptual location in the 80% RE-ITI scenario





#### What's Next?

- Most compliance filings due October 11
- Interregional coordination and cost allocation compliance filings due in April 2013.
- Stakeholders will scrutinize filings, comment on shortcomings and strengths.
- Implementation is key paper compliance is unacceptable – and stakeholder involvement is crucial.





### For Additional Information

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