

Generation and Transmission Planning Overview

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New Reactor Licensing & Transmission Planning

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Key Issues

- Current state of transmission development
- What transmission planners need to know about unit characteristics and grid interface requirements for new nuclear units
- Transmission planning issues
- New NERC standard on Nuclear Plant Interface Coordination

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Current State of Transmission Development

- Transmission lagging demand and capacity growth
- Increased grid congestion
- Transmission planning horizon 5 years or less, but takes longer to permit
- Need thorough studies - Can't just "plug and play"
- Big question is "who pays?"

Unit Characteristics and Interface Requirements for New Nuclear Units

- Over 12,000 MWs projected additions by 2016
- Larger unit sizes – up to 1,740 MW!
- Different LOOP coping times?
- Impact on circuit breaker short circuit duty due to more and larger units?
- Other issues?

Transmission Planning Issues

- Are planners studying impacts of just local plants or combined effects of all potential additions on grid reliability?
- Will transmission be able to be planned, sited, and built in time for unit startups?
- How will DOE National Interest Electric Transmission Corridor designations and FERC backstop siting authority help?

Nuclear Plant Interface Coordination

- Required coordination between nuclear plant operators and transmission operators to ensure grid has capacity to support safe operation and shutdown of nuclear units
- Nuclear plant licensing and design requirements documented in written agreements
- Standard approved by NERC board May 2
- Agreements in place 15 months after FERC approval
- NERC enforcement ~ Sept 2008

Desired Outcomes of Workshop

- Open sharing of information
- Understand needs of nuclear generation developers and transmission planners
- Identify follow up actions needed