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WIRES University's Electric Transmission 203: Planning to Expand and Upgrade the Grid

On June 28, 2010, WIRES and the Environmental and Energy Study Institute (EESI – www.eesi.org) held the latest in a series of WIRES University briefings on current and future methods of planning expansion of the high voltage electric transmission system. The briefings have been attended by hundreds of stakeholders.

At this briefing, the issue was how to best plan grid expansions and upgrades needed to address today's – and tomorrow's – challenges.

Speakers at Electric Transmission 203:

- Jay Caspary, Director, Transmission Development, Southwest Pool Power
- Hannes Pfeifenberger, Principal, The Brattle Group
- Steve Herling, Vice President–Planning, PJM Interconnection
- Daniel Kline, Regional Transmission Planning, Xcel Energy
- John Nathman, Admiral, U.S. Navy (ret.)
- Bill White, Energy Future Coalition
- Jim Hoecker, Counsel to WIRES; former Chairman, FERC (Moderator)

Issue Details:

The projected increase in demand for high-quality electric service over the next two decades, access to low-carbon and location-constrained renewable resources, deployment of new digital technologies, and a focus on energy independence and security will require major upgrades to the nation's transmission system. Grid planning today is done at various levels – individual utilities, states, regions, or whole interconnections – and the parties responsible for coordinating the process and executing the plans vary widely. The Federal Energy Regulatory Commission (FERC) gave general guidance in its Order No. 890, and the pending *American Clean Energy Leadership Act* (S. 1462) proposes a new planning regime. Yet questions remain about how planning should work, who conducts or oversees the process, and whether planning can both ensure a transmission system adequate to guarantee liquid bulk power markets and avoid imposing costs on load-serving entities disproportionate to the benefits. WIRES University's *Electric Transmission 203* explored diverse methods of planning and some of the current challenges that may have to be overcome by states, Congress, and/or the FERC.

FERC's June 2010 Notice of Proposed Rulemaking (Docket No. RM10-23-000) refocuses attention on the importance of fair and open regional transmission planning processes for the continued reliability of the grid, and for other purposes such as wholesale market liquidity, deployment of new technologies, competition among generating resources, compliance with state renewable portfolio standards, mitigation of market power, energy security, and potential reduction in carbon emissions.

Links:

[View speakers' presentations from Electric Transmission 203](#)

[Listen to an audio recording of the briefing](#)

Download the white paper: [Challenges in Integrating Renewable Technologies into an Electric Power System](#) by the Power Systems Engineering Research Center.

Materials and video from earlier WIRES University events are available at <http://www.wiresgroup.com/resources/wiresuniversity.html>