



TRANSMISSION SUMMIT *West* 2010

September 20-22, 2010 | San Francisco, CA

Transmission Executive Forum West 2010:

*A New Paradigm for Energy Resources— Impacts of Renewables on Transmission
Planning, Operations and Innovations*
Monday, September 20, 2010

- 8:00-9:00 Registration and Continental Networking Breakfast
- 9:00-9:15 **Welcome and Opening Remarks from the Forum Chair
Cristin Lyons, Partner, SCOTTMADDEN INC.**
- 9:15-10:00 **Update on How Energy Policy will Drive Transmission Development
and Investment**
Much of the paradigm shift affecting the grid is being driven by state and national policies—state RPS and the potential for national carbon legislation is fundamentally changing the generation mix in much of the nation. At the same time, federal legislation has the potential to add impetus to the development of advanced energy technologies and enhance the ability to site large-scale transmission projects. This presentation will review the potential changes in national and state policy drivers and their impacts on transmission.
- Carbon cap & trade—potential implications for transmission
 - Legislative and regulatory developments regarding siting & cost allocation
- Elliot Roseman, Vice President, Energy, Climate & Transportation
(ECT), ICF INTERNATIONAL**
- 10:00-10:45 **Case Study 1: Update on the Tres Amigas Project - Connecting the
Eastern and Western Interconnects**
**Phil Harris, CEO and Founder, TRES AMIGAS, LLC and Former CEO,
PJM INTERCONNECTION LLC**
- 10:45-11:15 Morning Networking Break

11:15-12:30 Panel Discussion: **The Expanding Geographic Scope in Planning and Its Impacts on Transmission Siting and Investment**

As the need to move power from renewable and other remote sources expands, FERC has initiated a new NOPR to build on Order No. 890 by establishing a closer link between regional electric transmission planning and cost allocation to help assure that needed transmission facilities are built. DOE has also initiated a \$80 million dollar study on how planning might be done across the entire Eastern and Western Interties, as well as throughout ERCOT. With an explicit goal of driving transmission planning to take into account public policy needs, and to expand the coordination of planning between neighboring regions, the future of the transmission build out is sure to be affected. This panel will discuss these activities, and their impacts on transmission.

Moderator:

Laurie Oppel, *Managing Director*, NAVIGANT CONSULTING, INC.

Panelists:

Ravi Aggarwal, *Senior Electrical Engineer*,

BONNEVILLE POWER ADMINISTRATION

Charles Reinhold, *Project Manager*, WESTCONNECT

Robert Smith, *Director, Energy Delivery Asset Management and Planning*, ARIZONA PUBLIC SERVICE

Steve Weiss, *Senior Policy Associate*, NW ENERGY COALITION

12:30-1:45 Group Luncheon

1:45-2:15 Case Study 2: **SPP's Experience in Dealing with the Eastern and Western Interconnects**

Jay Caspary, *Director, Engineering*,
SOUTHWEST POWER POOL LLC

2:15-3:15 Panel Discussion: **Challenges that High Ratios of Wind and Solar Resources Place on the Grid and How Operators are Responding to Them**

Regions that are reaching penetration levels of wind and solar energy resources comprising 15-20% of total capacity are already experiencing difficulties in operating reliably. Trying to fulfill state RPS edicts and the provisions in power purchase agreements has proven difficult to balance with the physics of grid operations. As more states begin to reach the levels required by their RPS these difficulties are expected to become more widespread. This panel will discuss:

- How will renewables affect grid reliability?
- Are new “just and reasonable” tariffs needed to accommodate VERs?
- How should system operators deal with ramps in VER output?
- What will be the impact on reserve margins and capacity markets?

- To what extent should VERs be subject to penalties for imbalances?
- Should there be shorter scheduling intervals for VERs and should there be a separate VER balancing authority?

Moderator:


Cristin Lyons, *Partner*, SCOTTMADDEN INC.

Panelists:

Mark Bruce, *Founder and Principal*, STRATUS ENERGY GROUP

Jay Caspary, *Director, Engineering*,
SOUTHWEST POWER POOL LLC

Arthur Haubenstock, *Chief Counsel and Director, Regulatory Affairs*,
BRIGHTSOURCE ENERGY

3:15-3:45 Afternoon Networking break sponsored by: 

3:45-4:15 Presentation: **New Electric Grid Technologies for Renewable Integration—The Need for Being Smarter**
Merwin Brown, PhD, *Director, Electric Grid Research*, CALIFORNIA INSTITUTE FOR ENERGY AND ENVIRONMENT, UNIVERSITY OF CALIFORNIA

4:15-5:15 Panel Discussion: **Advanced Technology, Demand Response and Energy Storage Investment in the Grid of Tomorrow**
It is clear that HVDC, demand response, energy storage and other technologies can mitigate at least some of the impacts of variable energy sources on the grid. However, it is not nearly as clear to what degree these technologies will be able to enhance the performance of the grid, nor how they might get revenue flows and justify investment under current ancillary services and other market rules. This panel will explore the capabilities and barriers to investment in advanced technologies.

Moderator:

Dave Adams, *Director*, SCOTTMADDEN INC.

Panelists:

Carl Borgquist, *President & CEO*,
GRASSLANDS RENEWABLE ENERGY LLC

Chet Lyons, *Director of Sales and Marketing*, BEACON POWER

David Meyers, *Director of Business Development*, ENERNOC

Terry Winter, *Executive Vice President, Projects, Power Systems*,
AMERICAN SUPERCONDUCTOR

5:00-6:00 Forum Cocktail Reception Sponsored by: 