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Models to Inform Planning for the Future of Electric Power in the US

February 3, 2020
Beckman Center, Huntington Room
100 Academy Drive
Irvine, CA 92617
Registration: http://futuregrid.eventbrite.com

A variety of models are used to support electric infrastructure planning and decision-making by diverse stakeholders in settings that span local to regional scales. Many of these models reflect the electric system as historically configured, a configuration that remains largely true today. However, the electricity system is undergoing significant changes, such as growth of generation sources connected directly to distribution systems, increasing amounts of variable renewables and inverter-based generation, and pressures to electrify transportation and buildings' energy uses so as to reduce carbon emissions. These changes—many of which may accelerate and deepen in future years—present challenges to conventional planning models, assumptions, and processes. This workshop will review recent models used in electricity system planning, and identify modeling and research needs as well as promising approaches to help plan the future of electric power in the US.

8:30 AM **Intro and welcome**, thanks from committee, goals for workshop and how it fits in study
Granger Morgan, Carnegie Mellon University and Committee Chair*

8:35 AM **Overview of models used in electric system analysis and planning:** what we use them for today, what are users' needs going forward, and what gaps exist in the suite of modeling tools available to researchers, policy makers, and actors in the field
John Weyant, Stanford University Energy Modeling Forum

9:15 AM **Long-term electric system modeling approaches, studies, and future directions to meet users' needs**
Moderator: Karen Palmer, Resources for the Future*

- *David Daniels, Energy Information Agency*
- *Dan Shawhan, Resources for the Future*
- *John Bistline, Electric Power Research Institute*
- *Bethany Frew, National Renewable Energy Laboratory*
- *John Larsen, Rhodium Group*

10:45 AM **BREAK**

11:00 AM **Models used for transmission planning: Their focus, strengths and limitations for various purposes, and how they can be improved**
Moderator: Anjan Bose, Washington State University*

- *Joe Eto, Lawrence Berkeley National Lab*

*Denotes member of NASEM Committee on Future of Electric Power in the US

- *Tom Overbye, PowerWorld*
- *Douglas Welsh, General Electric*
- *Branden Sudduth, Western Electricity Coordinating Council*
- *Dana Cabbell, Southern California Edison*

12:30 PM **LUNCH**

1:30 PM **Models used for distribution system planning: Their strengths and limitations for various purposes, and how they can be improved**
Moderator: Sue Tierney, Analysis Group*

- *Jason Fuller, Pacific Northwest National Lab*
- *Shay Bahramirad, Commonwealth Edison*
- *Colton Ching, Hawaiian Electric*
- *Jeff Smith/Roger Dugan, Electric Power Research Institute*
- *John Lee, Xcel Energy*

3:00 PM **BREAK**

3:20 PM **Case Study—Modeling to support LADWP's IRP and stakeholder engagement**
Moderator: Reiko Kerr, Los Angeles Department of Water and Power*

- *Jay Lim, Los Angeles Department of Water and*
- *James Barner, Los Angeles Department of Water and*
- *Jaquelin Cochran, National Renewable Energy Laboratory*
- *Fred Pickel, City of Los Angeles*

4:40 PM Closing Keynote—Overview of GMLC Planning Tools Research Objectives and How the North American Energy resilience Model can support planning decisions
John Grosh, Lawrence Livermore National Laboratory

5:15 PM Adjourn

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