Models to Inform Planning for the Future of Electric Power in the U.S.

February 3, 2020
Beckman Center, Huntington Room
100 Academy Drive
Irvine, CA 92617

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 U.S.

8:30 AM Welcome
Granger Morgan*, Carnegie Mellon University and Committee Chair

8:35 AM Overview of models used in electric system analysis and planning
John Weyant, Stanford University Energy Modeling Forum

9:15 AM Long-term electric system modeling
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
Moderator: Anjan Bose*, Washington State University
- Joe Eto, Lawrence Berkeley National Lab
- Thomas Overbye, PowerWorld
- Douglas Welsh, General Electric
- Branden Sudduth, Western Electricity Coordinating Council
- Amos Ang, Southern California Edison

12:30 PM LUNCH

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1:30 PM  Models used for distribution system planning  
Moderator: Sue Tierney*, Analysis Group  
- Jason Fuller, Pacific Northwest National Lab  
- Roger Dugan, Electric Power Research Institute  
- Aleksi Paaso, Commonwealth Edison  
- Colton Ching, Hawaiian Electric Company  
- 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  
- James Barner, Los Angeles Department of Water and Power  
- Jay Lim, Los Angeles Department of Water and Power  
- Jaquelin Cochran, National Renewable Energy Laboratory  
- Fred Pickel, City of Los Angeles

4:40 PM  Closing Keynote  
John Grosh, Lawrence Livermore National Laboratory

5:15 PM  Adjourn

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