

CERTS RELIABILITY & MARKETS (R&M)

Internal Program Review

August 4–5, 2015

Cornell University | Statler Hotel, Ballroom A&B
130 Statler Drive, Ithaca, NY 14853 | (607) 257-2500

Agenda

Tuesday, August 4, 2015

- 7:30 am Morning refreshments available
- 7:45 am Welcome, Introductions & Overview
Bob Thomas, Cornell University
Phil Overholt, Department of Energy

SESSION I

- 8:00 am A Business model for retail aggregation of responsive load
Shmuel Oren, UC Berkeley
- 8:45 am Managing uncertainty in the modern power system
Eilyan Bitar, Cornell
- 9:30 am Restructuring the retail market to include load flexibility
Anna Scaglione, Arizona State University
- 10:15 am Break

SESSION II

- 10:30 am Virtual bids and flexible bids: Risk mitigation and congestion relief
Pravin Varaiya, UC Berkeley
- 11:15 am Framework for assessing the impact of coordinated aggregation of DER on bulk power system performance
Alejandro Dominguez-Garcia, University of Illinois, Urbana-Champaign
- Noon Lunch (Ballroom A)

SESSION III

- 12:45 pm Dynamic reserve policies for market management systems
Kory Hedman, Arizona State University
- 1:30 pm Mapping Energy Futures: The SuperOPF Planning Tool
Bill Schulze, Cornell
- 2:15 pm Transmission Investment Assessment under Uncertainty
Ben Hobbs, Johns Hopkins University
- 3:00 pm Break

SESSION IV

- 3:15 pm Probabilistic forecast of real-time locational marginal price
Lang Tong, Cornell
- 4:00 pm On valuing system inertia and fast storage response
Tom Overbye, University of Illinois, Urbana-Champaign

- 4:45 pm Random topology power grid modeling and the automated simulation platform
Zhifang Wang, Virginia Commonwealth University
- 5:30 pm Adjourn Day 1

Wednesday, August 5, 2015

SESSION V

- 7:30 am Morning refreshments available
- 8:15 am Development and testing of new tools
Ray Zimmerman, Cornell
- 9:00 am Commercialization of the SuperOPF framework with CAISO
Hsiao-Dong Chiang, Cornell
- 9:45 am Investigation of advanced stochastic unit commitment solution for optimal management of uncertainty
Lindsay Anderson, Cornell
- 10:30 pm Break

SESSION VI

- 10:45 am Efficient AC optimal power flow & global optimizer solutions
HyungSeon Oh, SUNY Buffalo
- 11:30 am Attribute-preserving optimal network reductions
Dan Tylavsky, Arizona State University
- 12:15 pm Lunch (Ballroom A)
- 1:30 pm Breakout group presentations
- 1:45 pm Group discussion of new programmatic directions and future research agenda
Bob Thomas, Phil Overholt, Joe Eto
- 3:00 pm Adjourn