

CERTS RELIABILITY & MARKETS (R&M)

Internal Program Review

August 5–6, 2014

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

Draft Agenda

Tuesday, August 5, 2014

- 7:30 am Morning refreshments available
- 8:00 am Welcome, Introductions & Overview
Bob Thomas, Cornell University
Phil Overholt, Department of Energy

SESSION I

- 8:30 am Development and Testing of New Tools
Ray Zimmerman, Carlos Murillo-Sánchez, Daniel Munoz Alvarez, Bob Thomas
- 9:15 am Mapping Energy Futures: The SuperOPF Planning Tool
Bill Schulze, Ray Zimmerman, Dan Shawhan, Jubo Yan
- 10:00 am Evaluating the Effects of Managing Controllable Demand and Distributed Energy Resources Locally on System Performance and Costs
Tim Mount, Alberto Lamadrid¹
- 10:45 am Break

SESSION II

- 11:00 am Commercialization of the SuperOPF Framework: Phase 3²
Hsiao-Dong Chiang, Bin Wang, Patrick Causgrove
- 11:45 am Random Topology Power Grid Modeling and the Automated Simulation Platform
Zhifang Wang³
- 12:15 Lunch & Group Discussion(Rowe)
R&M FY15 Planning—Joe Eto, LBNL

SESSION III

- 1:15 pm Transmission Investment Assessment under Uncertainty
Ben Hobbs, Dick Schuler
- 2:00 pm Renewable Integration Through Risk-Limiting Dispatch And Distributed Resource Aggregation
Pravin Varaiya, Alejandro D. Dominguez-Garcia
- 2:45 pm Probabilistic Forecast of Real-Time Locational Marginal Price
Lang Tong, Liyan Jia
- 3:30 pm Break

¹ Final report; project ended April 1, 2014

² Final report; project ended April 1, 2014

³ New project started March 30, 2014; report on proposed direction only

SESSION IV

- 3:45 pm Investigation of Advanced Stochastic Unit Commitment Solution for Optimal Management of Uncertainty
Lindsay Anderson
- 4:30 pm Dynamic Reserve Policies for Market Management Systems
Kory Hedman⁴
- 5:00 pm *Break*
- 6:00 pm Working dinner and breakout assignments
Dinner at Bob and Kinga's
375 Power Road, King Ferry, NY 13081

Wednesday, August 6, 2014

SESSION V

- 7:30 am Morning refreshments available
- 8:15 am Business Model for Retail Aggregation of Responsive Load
Shmuel Oren
- 9:00 am Efficient AC Optimal Power Flow & Global Optimizer Solutions
HyungSeon Oh
- 9:45 am Development of Attribute Preserving Network Equivalents
Tom Overbye
- 10:30 am *Break*

SESSION VI

- 10:45 am Essence of Structure Preserving (ESP) Network Reductions for Engineering and Economic Analysis of High Penetration of Renewables
Dan Tylavsky, Di Shi⁵
- 11:30 am Enabling Open Access Energy Storage in Electric Power Networks
Eilyan Bitar⁶
- 12:30 pm *Lunch (Rowe)*
- 1:30 pm Presentations by breakout groups and discussion of future research agenda
Bob Thomas, Phil Overholt, Joe Eto
- 2:00 pm Adjourn

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