

# CERTS RELIABILITY & MARKETS (R&M)

Internal Program Review

August 6-7, 2013

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

## Draft Agenda

### Tuesday, August 6 (Day 1); Amphitheater

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

#### SESSION I

- 8:45 am **Transmission Investment Assessment Under Uncertainty**  
*Ben Hobbs, Dick Schuler, Saamrat Kasina*
- 9:30 am **Renewable Integration Through Risk-Limiting Dispatch And Distributed Resource Aggregation**  
*Pravin Varaiya, Felix Wu, K. Poolla, Alejandro D. Dominguez-Garcia*
- 10:15 am *Break*

#### SESSION II

- 10:30 am **Development and Testing of New Tools**  
*Ray Zimmerman, Carlos Murillo-Sánchez, Daniel Munoz Alvarez, Bob Thomas*
- 11:15 am **Commercialization of the SuperOPF Framework: Phase 3**  
*Hsiao-Dong Chiang, Bin Wang, Patrick Causgrove, Ray Zimmerman*
- 12:00 *Lunch*

#### SESSION III

- 1:00 pm **Business Model for Retail Aggregation of Responsive Load**  
*Shmuel Oren*
- 1:45 pm **Essence of Structure Preserving (ESP) Network Reductions for Engineering and Economic Analysis of High Penetration of Renewables**  
*Dan Tylavsky, Di Shi*
- 2:30 pm **Development of Attribute Preserving Network Equivalent**  
*Tom Overbye*
- 3:15 pm *Break*

## SESSION IV

- 3:30 pm **Investigation of Advanced Stochastic Unit Commitment Solution for Optimal Management of Uncertainty**  
*Lindsay Anderson (Note: This is a new project that began March 30, 2013; it will report on proposed direction only)*
- 4:15 pm **Efficient AC Optimal Power Flow & Global Optimizer Solutions**  
*HyungSeon Oh (Note: This is a new project that began March 30, 2013; it will report on proposed direction only)*
- 5:00 pm *Adjourn*
- 6:00 pm Working dinner and breakout assignments  
Dinner at Bob and Kinga's  
375 Power Road, King Ferry, NY 13081

## Wednesday, August 7 (Day 2); Amphitheater

### SESSION V

- 8:30 am Morning refreshments available
- 9:00 am **Evaluating the Effects of Managing Controllable Demand and Distributed Energy Resources Locally on System Performance and Costs**  
*Tim Mount, Alberto Lamadrid, Ray Zimmerman, Eilyan Bitar*
- 9:45 am **Mapping Energy Futures: The SuperOPF Planning Tool**  
*Bill Schulze, Ray Zimmerman, Dan Shawhan, Jubo Yan, Andy Kindle*
- 10:30 am **Real-time Price Forecast with Big Data: A State Space Approach**  
*Lang Tong, Liyan Jia*
- 11:15 am *Break*

### SESSION VI

- 11:45 am **Power System Reliability, Economics, and Air Quality**  
*Max Zhang*
- 12:30 pm *Lunch*
- 1:30 pm **Presentations by breakout groups and discussion of future research agenda**  
*Bob Thomas, Phil Overholt, Joe Eto*
- 2:00 pm *Adjourn*