

CERTS RELIABILITY & MARKETS (R&M)

Internal Program Review

August 5–6, 2014

Cornell University | Statler Hotel, Ithaca, NY

List of Presentations

Tuesday, August 5, 2014

1. MATPOWER and Tools for Planning and Operation of Power Systems under Uncertainty
Presenters: Ray Zimmerman, Carlos Murillo-Sánchez
2. Mapping Energy Futures: The SuperOPF Planning Tool
Presenters: Dan Shawhan, Bill Schulze
3. Effects of Managing Controllable Demand and DER Locally on System Performance and Costs¹
Presenter: Tim Mount
4. Commercialization of the SuperOPF Framework: Phase 3²
Presenter: Hsiao-Dong Chiang, Patrick Causgrove
5. Random Topology Power Grid Modeling and the Automated Simulation Platform³
Presenter: Zhifang Wang
6. Transmission Investment Assessment under Uncertainty
Presenters: Ben Hobbs, Saamrat Kasina, Pearl Donohoo, Emily Fisher
7. Coordinated Aggregation and Control of Distributed Energy Resources
Presenter: Alejandro D. Dominguez-Garcia
8. Probabilistic Forecast of Real-Time Locational Marginal Price
Presenter: Lang Tong
9. Advanced Stochastic Unit Commitment Formulation for Management of Uncertainty
Presenters: Lindsay Anderson, Gabriela Martinez
10. Dynamic Reserve Policies for Market Management Systems⁴
Presenter: Kory Hedman

Wednesday, August 6, 2014

11. Business Model for Retail Aggregation of Responsive Load
Presenter: Shmuel Oren
12. Efficient AC Optimal Power Flow & Global Optimizer Solutions
Presenter: HyungSeon Oh
13. Development of Attribute Preserving Network Equivalents
Presenter: Tom Overbye
14. ESP Network Reductions for Engineering and Economic Analysis⁵
Presenter: Dan Tylavsky
15. Open Access Energy Storage⁶
Presenter: Eilyan Bitar

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

⁴ New project started March 30, 2014; report on proposed direction only

⁵ Final report; project ended April 1, 2014

⁶ New project; report on proposed direction only