

HICSS 37 Minitrack Summary Description

Title: “Market Designs for Electric Systems”, CSMDE

Chair: Richard E. Schuler, Cornell Univ., Ithaca, NY 14853-3501

Summary: Structuring efficient markets for electricity that facilitate operational reliability and needed system expansion is an evolving art, as evidenced by markets and price spikes in practice and the northeast blackout on August 14, 2003. The sequence of Federal Energy Regulatory Commission Proceedings over the past several years have not yet settled on the balance between regional scope and standardization versus flexibility to test improvements in market designs. Traditional analytic methods have been only partially successful in fashioning improvements for these complex systems with multiple human interfaces because system parameters routinely become choice variables in the interplay between sellers, buyers, operators and market monitors. Thus analytic, statistical, numerical, game-theoretic and experimental techniques all have relevance.

These interdependencies are explored through the following four sessions:

- 1.) “The Dynamic Interface between Markets and Physical Systems”
chaired by Fernando Alvarado, Univ. of Wisconsin-Madison.
- 2.) “Congestion and the Design of Efficient Forward Markets”
chaired by Timothy Mount, Cornell Univ.
- 3.) “Market Power Monitoring and Mitigation”
chaired by Richard Tabors, TCA associates.
- 4.) “Computational Models for Benchmarking and Ancillary Services”
chaired by Shmuel Oren, UC Berkeley.