

◆ Introduction to the Electric Power Systems Restructuring: Engineering, Economics and Policy Track

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This track seeks to explore methods at the frontier of understanding the next generation electric power system. It focuses on engineering, economics and policy issues that are at the forefront of current research, development, and demonstration.

The track contains three minitracks. The first minitrack has three sessions. One session focuses on the engineering and economics of sustainability, renewables, and carbon. Specific topics include dealing with wind variability and carbon pricing. The second session deals with market issues and their effects on supply reliability. The session is especially interested in seams issues and forward capacity market design. And finally, a third session in this minitrack is interested in engineering and economic interactions when distributed generation technologies are present.

The second minitrack also has three sessions but it deals with topics related to Electric Power System Monitoring and Control. The first of the three in this minitrack explore issues related to sensor networks and data integration. The papers selected for the second session discuss aspects of the research being conducted in the area of advanced real-time phasor measurement systems along with aspects of the collection, analysis, and application of these measurements, including data protocols,

communication, and integration, topology processing, state estimation, security margin assessment, and alarming. The third session addresses emerging energy management system issues such as visualization and situational awareness.

The third minitrack contains two sessions focused on the reliability and security of bulk electric power systems. The first session we note that the introduction of advanced technologies and protocols for data communications, along with the implementation of standards and technologies for data integration imply the availability of better information and shorter response time for execution of power system monitoring, control, protection, and market transactions. This session explores some new ideas and implementation approaches in the area of communications and data integration. The papers selected for the second session discuss aspects of the research being conducted in the area of cyber security especially as it relates to control systems.

All-in-all there are 24 papers being presented on a wide range of engineering and economics topics related to the electric power business. It promises to be interesting.