

Tulane University Students Learn Smart Grid Power Trading Using Real-Time Simulation

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With the threat of recent massive power blackouts ever present, a small group of master's of finance and MBA candidates at Tulane University are reliving the nightmare of a darkened landscape – not as students – but as the next operators of the Smart Grid.

Tulane University's A.B. Freeman School of Business has developed a course – Introduction to Electricity Markets – to engage students in the challenges faced by power traders, electric utility analysts, independent power producers and utility dispatchers whose job it is to keep America's lights on in the most cost-effective manner. Students taking the course assume the roles of these “power brokers,” answering calls to shore up the nation's electrical system by integrating renewable energy sources, optimizing transmission systems with smart-grid technologies, and participating in a fair and seamless wholesale electric marketplace.

The students will participate in a simulated, 12-hour energy dispatch shift as their final exam from 1 p.m. to 5 p.m. on Friday, March 5.

Students engage in real-time simulation activities in the A.B. Freeman School of Business Trading Center – a \$2.4 million laboratory customized with unique power simulation software. Students work at monitors nearly identical to that seen by utility and independent power trading and dispatch desks, communicating with each other electronically, to deliver power in the most economic, reliable, and “green” mode possible.

These exercises are “real” enough to be recognized by the North American Electric Reliability Corporation (NERC), the Electric Reliability Organization delegated by the Federal Energy Regulatory Commission to administer System Operator Training, as

suitable for operator continuing education hours. Those who have successfully completed the course have, upon graduation, landed jobs in utility and commodity trading roles at numerous energy firms, including Entergy Corporation, Florida Power and Light, Ameren Energy, and JP Morgan.