IMPLEMENTATION OF REAL-TIME CO-OPTIMIZATION AT ERCOT

~ by ~

VENKAT TIRUPATI
ELECTRIC RELIABILITY COUNCIL OF TEXAS (ERCOT)

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OVERVIEW

The Electric Reliability Council of Texas (ERCOT) manages the flow of electric power to more than 26 million Texas customers -- representing about 90 percent of the state's electric load. As the independent system operator for the region, ERCOT schedules power on an electric grid that connects more than 46,500 miles of transmission lines and 680+ generation units. It also performs financial settlement for the competitive wholesale bulk-power market and administers retail switching for 8 million premises in competitive choice areas.

This talk will provide a high-level overview of ERCOT, its Day-Ahead/Real-Time Market and, specifically, Real-Time Co-optimization (RTC) and its anticipated benefits. RTC is the process of dispatching energy and ancillary services interchangeably in the Real-Time Market. Public Utility Commission (PUC) of Texas directed ERCOT to implement; tentatively slated to go live in 2024.

BIO

Venkat Tirupati is currently the Director of Grid and Market Solutions at Electric Reliability Council of Texas (ERCOT) in Austin, TX. He serves the teams that develop and support solutions for Energy and Market Management Systems. Prior to joining ERCOT, he was the Director, Line of Business at Lower Colorado River Authority (LCRA) in Austin, TX serving teams responsible for supporting wholesale power and water business units with their IT needs. He also held Manager, Market Systems and Supervisor, EMS and Advanced Applications roles at LCRA. Prior to LCRA, Venkat worked as a Senior Reliability Engineer at North American Electric Reliability Corporation (NERC) in Atlanta, GA and as a Senior Software Applications Engineer at Siemens Energy in Minneapolis, MN.

Venkat's interests include Power Systems Engineering, Market Applications, IT/OT systems architecture, software development and data analytics. Venkat earned his BSE in Electrical Engineering from University of Mumbai, India and his MS in Electrical Engineering from Illinois Institute of Technology, Chicago. He is registered Professional Engineer (P.E.) in the State of Texas.