

PRR Position Statement

PRR Number	830	PRR Title	Reactive Power Capability Requirement
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Date	November 10, 2009
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Submitter's Information	
Name	John Houston, TAC Advocate
E-mail Address	
Company	CenterPoint Energy Houston Electric
Phone Number	
Cell Number	
Market Segment	

Comments

John Houston, Vice President of Transmission and Substation Operations for CenterPoint Energy Houston Electric, has agreed to serve as the Technical Advisory Committee ("TAC") Advocate for the appeal of PRR 830. Due to business meetings in Washington D.C., Mr. Houston was not contacted until late in the day on Monday, November 9, 2009; therefore, Mr. Houston has not had adequate time to prepare documents to submit to the Board of the Electric Reliability Council of Texas ("ERCOT Board") by the deadline of Tuesday, November 10, 2009. Mr. Houston will submit more complete documents prior to the ERCOT Board's consideration. The following information is submitted in support of the TAC approval of PRR 830.

The issues raised in PRR 830 have been adequately vetted through the stakeholder process and it passed each vote with overwhelming approval rates. At the October 12, 2009, Reliability and Operations Subcommittee ("ROS") meeting, at least two hours were spent on presentations and consideration of comments. The vote passed with 5.5 in favor, 2.0 opposed, and two abstentions. As the ERCOT Board is aware, ROS "is responsible to review operations of ERCOT in relation to system security, operating guides application, and emergency operations." At the October 19, 2009, Protocol Revision Subcommittee meeting, several hours were also spent in consideration of the issues raised by various interested persons. The vote passed with 5.889 in favor, 1.111 opposed, and five abstentions. Another thorough vetting occurred at the November 5, 2009, TAC meeting. The PRR was approved with a vote of 23 in favor, one opposed, and six abstentions.

PRR 830 was proposed by ERCOT Staff. PRR 830 clarifies the reactive power capability requirement applicable to generators. Reactive power requirements are fundamentally a reliability concern to ensure voltage stability is maintained on the ERCOT network. ERCOT requirements relating to reactive power capability were originally developed by ROS and

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approved by TAC. The requirements are based upon an equitable and workable approach that recognizes ensuring voltage stability requires reactive power performance from three entities: generators, loads, and transmission owners. Generators and loads have a fixed reactive power requirement and transmission owners supply whatever additional reactive power is needed based upon engineering analyses. For generators, the fixed performance requirement is to provide and maintain reactive power (MVAR) capability based on 0.95 power factor or less calculated at the unit's maximum real power (MW) capability throughout the range of the unit's real power output. The generator reactive power requirement does not vary based on need determined by engineering analysis. For example, engineering analysis performed at various times have determined the Dallas-Fort Worth metroplex and the greater Houston area required significant reactive resources, both static and dynamic, to ensure voltage stability is maintained. The identified need is not met by requiring additional reactive capability from generators located in such areas because, as previously noted, the philosophy behind the ERCOT requirements is that generators have a fixed requirement. Instead, the additional reactive resources are provided by the transmission owners that have the variable requirement based on need identified through engineering analysis.

The overwhelming majority of the members of ROS, PRS, and TAC support PRR 830 due to reliability concerns for the electric transmission grid within ERCOT as well as concerns that all generators within ERCOT are treated equitably. The ERCOT transmission system was designed and built upon the criteria that all generators would provide the specified requirement for reactive power. PRR 830 clarifies the reactive requirement for generators to ensure that the system is operated in the manner in which it was planned and built. The majority of the ROS, PRS, and TAC members agree that PRR 830, as proposed by ERCOT, is a well-reasoned, flexible, and fair approach consistent with the reliability requirements understood and implemented by the majority of industry participants.

Lastly, the issues raised in PRR 830 do not need further study. As previously noted, generators have a fixed reactive capability requirement. The requirements for generators are not determined based on study and do not increase or decrease based on need identified by a different studies performed at different times over the life of the generating units. Instead, studies are performed to identify the variable transmission owner requirements.