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| **SO-10 Voltage Control Process:** This issue has been raised in recognition of the fact that the West Texas / Panhandle will have many different transmission providers serving a large concentration of wind-powered generation. There has long been a need to coordinate voltage in response to large daily swings in load and the accompanying swings in generation. Transmission Service Providers (TSPs) have designed, installed, and operated the needed reactive devices for their systems. Operationally, the typical pattern has been to do ERCOT wide seasonal studies setting voltage profiles and then letting the Transmission Service Providers (TSPs) manage the day to day and hour to hour variations. Coordination of reactive designs between TSPs was needed only for special circumstances.  The eight individual TSPs systems involved in the CREZ projects are intertwined with each other. One TSPs voltage control efforts can be expected to have a large impact on anther TSPs facilities. The large concentration of wind-power served by eight different TSPs requires a detailed and coordinated design effort and operating strategy. Thus this issue has both a planning and operations component. | |
| **Priority** | Medium for the operations component |
| **Considerations** | Policy: None |
| Reliability: Voltage control is a key reliability issue. |
| Technical: Currently available technology will provide the needed reactive components. However new operating practices and requiring new coordination strategies may be needed. |
| Market: None |
| Performance/Compliance: Existing performance and compliance should be adequate unless radically different operating procedures are developed. |
| Cost Allocation: No new cost allocation issues are anticipated. |
| **Strategy** | Recommendation. Include an operational analysis in the reactive design study to evaluate the level of coordination needed to respond to load and generation changes in West Texas / Panhandle. Evaluate the adequacy of current voltage control procedures. |
| **Activities** | ERCOT (E X): ERCOT assist in developing a study scope and procuring study resources. ERCOT lead the effort to assess the adequacy of standard voltage control procedures when operating the CREZ system. |
| Market Participants (MP X):  TSPs, generators, and all other market participants actively participate in the evaluation of voltage control procedures for the CREZ system. |
| **Follow-Up** | The Reliability and Operations Subcommittee needs to review ERCOT and TSP plans for voltage control of the CREZ system. |
| **Schedule** | The reactive design study is currently underway.  June 2010 – reactive operational review portion of the study completed.  June 2011 – ERCOT and TSPs establish any needed new procedures. |