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| **SO-08 Impact of Wind Turbines on System Inertia:** Determine the potential impact on system interia and develop possible solutions. This is the first of two entries on this topic. The other one is SP-05 which will be done by ERCOT Planning staff after the VRT study is done (June 2010). SO-08 was resolved in October 2008 by a PDCWG (Performance, Disturbance, Compliance Working Group) presentation to ROS. | |
| **Priority** | Medium |
| **Considerations** | Policy: No policy considerations |
| Reliability: The reliability concern is that windplants do not automatically respond to frequency deviations in the same way synchronous generators do. As the proportion of synchronous generation decreases, maintaining frequency will require more operator action, either in advance by under-frequency load-shed relay settings, or in real-time reaction by the operators at the Frequency Desk. |
| Technical: The technical challenge is how to operate the grid reliably with fewer synchronous generators available to respond automatically to frequency deviations. |
| Market: No market considerations |
| Performance/Compliance:  ERCOT: NERC CPS1 and DCS criteria and Balancing Authority ACE limit  QSEs with synchronous generators: Correct SCE bias settings  Wind-only QSEs: None now |
| Cost Allocation: Unknown at this time |
| **Strategy** | PDCWG reported by to ROS in October 2008 without making a recommendation. |
| **Activities** | ERCOT: ERCOT Planning staff will study the problem. |
| Market Participants: None |
| **Follow-Up** | This will be a recurring study for ERCOT Planning staff as the wind percentage of all ERCOT generation increases. |
| **Schedule** | PDCWG reported by to ROS in October 2008. |