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| **SP-09 Wind Turbine Model Validation:** ERCOT Operations, ERCOT Planning, and the Dynamics Working Group do a great variety of studies that require dynamic models of individual wind generator turbines and entire windfarms. The existing dynamic models are of mixed vintage and quality. The turbine manufacturers have been reluctant to share their own models. The behavior of the models in time-simulations should be compared to the in-service behavior of windfarms to assure everyone that all the studies run with them are trustworthy. | |
| **Priority** | Medium |
| **Considerations** | Policy: Should any machine or device be allowed to be connected to the grid without being studied? |
| Reliability: Not a grid reliability issue. |
| Technical: Ideally ERCOT should have an industry or academic or government partner for this. The validation of the dynamics models will benefit other ISOs and the entire industry. Possible partners are UWIG, NREL, DOE, EPRI, and UT Arlington. |
| Market: Not a market issue. |
| Performance/Compliance: Not a compliance issue. |
| Cost Allocation: Unknown |
| **Strategy** | Recommendation: RTWG member Howard Daniel could check EPRI Project 173 and bring the details to ERCOT Planning staff and the Dynamics Working Group. |
| **Activities** | ERCOT: Run time-simulations with the existing models that match measured events in field. Provide results and SCADA-gathered measurements to EPRI for comparison. If the comparisons are not good, return to the authors of the existing models to request revision. |
| Market Participants: Unknown, possibly none. |
| **Follow-Up** | Submit results to IEEE for publication. Report to ERCOT Regional Planning Group. Present to UWIG conference. |
| **Schedule** | Unknown |