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| **SO-32 Real Time Wind-powered Generation Capacity:** At certain times it will be necessary to estimate the potential output capability of WGRs when they are being curtailed. Experience using an estimation process that possibly includes the effects of wind velocity, direction, losses, and wind-powered turbine production efficiencies could be useful in developing the final estimation process needed. Estimating WGR output from wind measurements is not strait forward. The results are dependent upon many different factors and the experience in the industry is limited and inconsistent. Requiring all WGRs to estimate their output when not curtailed using the same process as would be used when curtailed allows the process to be compared with actual meter readings when curtailed. The comparison process will allow the WGRs to evaluate alternative algorithms and data sources in order to provide the best estimate. The process to require all WGRs to supply real time production potential telemetry has been completed. The data sent to ERCOT has some immediate, limited operational value in the Zonal system but is not needed in the nodal system. This is essentially a process to gain experience with estimating techniques and has little value once the techniques are perfected. | |
| **Priority** | Low |
| **Considerations** | Policy: None |
| Reliability: Providing a reasonable estimate of WGR potential capability when the WGR is curtailed is needed to allow ERCOT to reschedule the WGR when it is no longer curtailed. |
| Technical: There are many issues about measurement processes, averaging times, and data sources that need to be explored. |
| Market: None |
| Performance/Compliance: None |
| Cost Allocation: None |
| **Strategy** | Recommendation: Develop a protocol revision requiring WGRs to telemeter an estimate of production potential to ERCOT using a consistent averaging time for the data. |
| **Activities** | ERCOT (E X): Develop procedures and systems to capture the new data and analyze as needed. |
| Market Participants (MP X): WGRs develop systems needed to telemeter the new estimate of production potential to ERCOT. Compare the estimates with meter readings and experiment with alternative data sources, averaging times and algorithms to develop the best estimate. |
| **Follow-Up** | Share experience of WGRs in developing reasonable estimation methods. |
| **Schedule** | January 2010 Protocol revision 811 requiring estimated Real Time Production Potential to be telemetered to ERCOT was adopted. |