PDCWG Meeting March 26, 2014 Chair: Sydney Niemeyer Vice Chair: Don Blackburn

ERCOT Met Center Room 206A

Morning session was a joint meeting with the QMWG.

1. Early release of HASL under ORDC: ROS assignment. Sandip Sharma of ERCOT reported that ERCOT will publish a report on this issue by April 9th and recommended that discussions of this issue wait for this report. The PDCWG took no action and is waiting for their report.
2. NPRR 576: Changing Non-Spin Service to be Dispatched by ERCOT (formerly “Changing Non-Spin Service to an Off-Line Service”) ROS assignment. The PDCWG reviewed the latest comments (-05 PRS and -06 CPS dated 03/24/14 and 03/25/14) and found no issues with reliability in this NPRR. However, PDCWG wishes to state that if the total amount of RRS procured by ERCOT reduces below the present 2800 MW, which includes 500 MW of prior non-spin service, that the allowable percentage of participation of a Resource would need to be reduced from the present 24% to an appropriate percentage (20% if RRS total is 2300) and the percentage of this capacity that is allowed to be non-frequency responsive would also be reduced, 0% if RRS total is 2300.

Other general activities during the PDCWG meeting:

1. ERCOT (Sharma) presented the final report on the FRRS Pilot. FRRS can improve ERCOT’s ability to arrest frequency decay during unit trips. FRRS independently detected system frequency and responded when expected in the time period expected.
2. ERCOT (Sharma) presented ERCOT’s methodology for adjusting the Resource Reserve Discount Factor.
3. Responsive Reserve Service Qualification testing, Protocol 8.1.1.2.1.2 was discussed in the area of the need for the “primary and alternate voice circuits to validate the voice circuits” required check as still being needed during this qualification test. The PDCWG did not see a need in maintaining this voice circuit test during RRS Qualification testing.
4. BAL-001-TRE-1 implementation period begins April 1. 2014 and was reviewed. ERCOT, GO’s and GOP’s have activities that must be completed by March 31, 2015. A summary of Nodal Operating Guide and Nodal Protocols that will need to be revised is being assembled to begin the process of aligning both documents to the NERC standard.
5. ERCOT Frequency Control, CPS1, 2 and RMS1 was reviewed for the first 25 days of March. CPS1 is lower than the 12 month rolling average but remains very good. Seasonal requirements of Resource Startup and Shutdown, Short Term Load Forecast errors/differences between adjacent days and general load forecast errors were noted as contributing to the lower CPS performance.
6. Resource GREDP during the first 23 days of March was reviewed.
7. ERCOT Time Error and Time Corrections were reviewed. To date, 6 TECs have been performed in March. Within the existing LFC logic in the ERCOT Energy Management system, an integral term that may improve the Time Error accumulation and also assist in balancing Regulation Deployments is available that is presently not used. ERCOT will begin evaluating the integral term in their Test EMS to determine if it could help improve performance.
8. A TRE RFI from Wind Resources was discussed. Some questions in the RFI asked for information available in the RARF. A concern was raised with the findings that a wind farm “low temperature” trip causing the shutdown of a wind turbine was being considered as a forecasting tool to predict Resource availability during severe weather events. The concern with using ambient temperature to predict this limit is that the impact of low ambient temperature is more dynamic than just looking at ambient temperature. Other conditions like Turbine loading during the low ambient temperature also impact the risk of this trip. Caution was raised about using ambient temperature for forecasting this condition.
9. ERCOT Frequency Disturbance Event review. Three of the five sudden changes in frequency events were reviewed and one slow “high” frequency event was reviewed. The events selected for review measured the lowest Primary Frequency Response performance by the Interconnection.
   1. 02-20-14 @ 21:06 -421 MW/0.1 Hz
   2. 02-28-14 @ 13:25 -512 MW/0.1 Hz
   3. 03-02-14 @ 07:37 -515 MW/0.1 Hz

Events “a” and “c” had six Resources each that had Primary Frequency Response performance issues while event “b” had fifteen Resources with performance or data issues. PDCWG members were present for each of these Resources and are or will be working with these Resources to improve performance. The 2013 median Primary Frequency Response of the ERCOT Interconnection was -699 MW/0.1 Hz.

The high frequency event, 02-26-14 @ 05:55, was reviewed. Contributing factors were: 1) Resource Startup, 2) Wind Resources without Primary Frequency Response increased output where Wind Resources with Primary Frequency Response decreased output a total of 200 MW, 3) non-conforming load decreased about 100 MW adding to the high frequency, 4) the top of the hour transition of Regulation Ancillary Services between Resources caused some Resources to increase output as their Down Regulation Service Responsibility reduced.

1. The next PDCWG meeting is May 1, 2014.