



Update on PRR763: ERCOT Wind Power Forecasts

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Board of Directors Meeting Committee Meeting

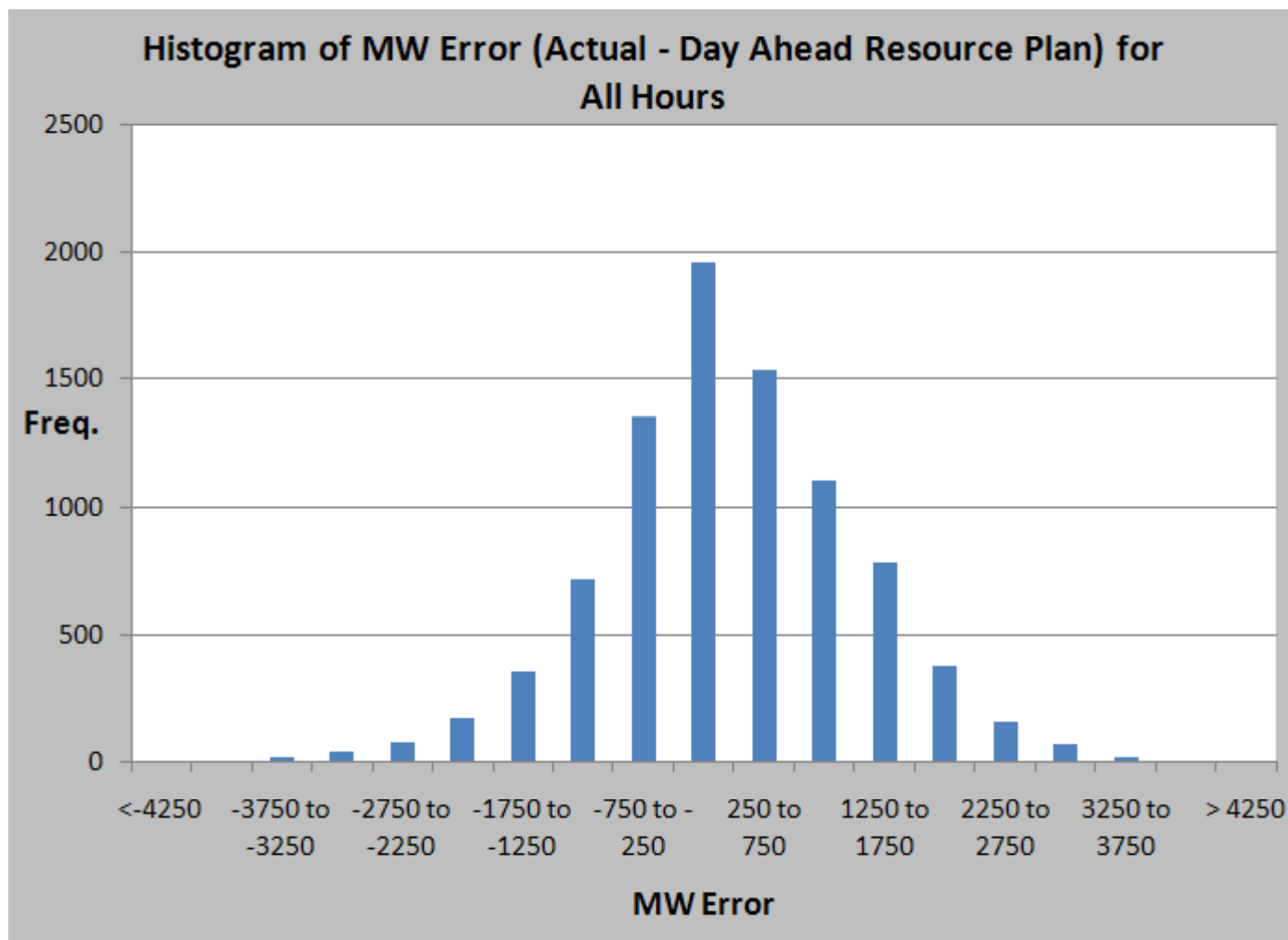
October 19, 2010

Day Ahead Resource Plan Performance

- **Balancing Energy Service deployments for wind only QSEs has been added back to the aggregate Wind Generation Resource (WGR) output to estimate non-curtailed wind output**
- **Per PRR 841, QSEs are required to use the AWST 50% probability of exceedance forecast for their Day-Ahead Resource Plans**
 - PRR 841 took effect on 4/1/2010
 - Prior to 4/1/2010, QSEs were required to use the AWST 80% probability of exceedance forecast
- **Some changes in performance may be due to forecast model improvement and not necessarily to seasonal variations**

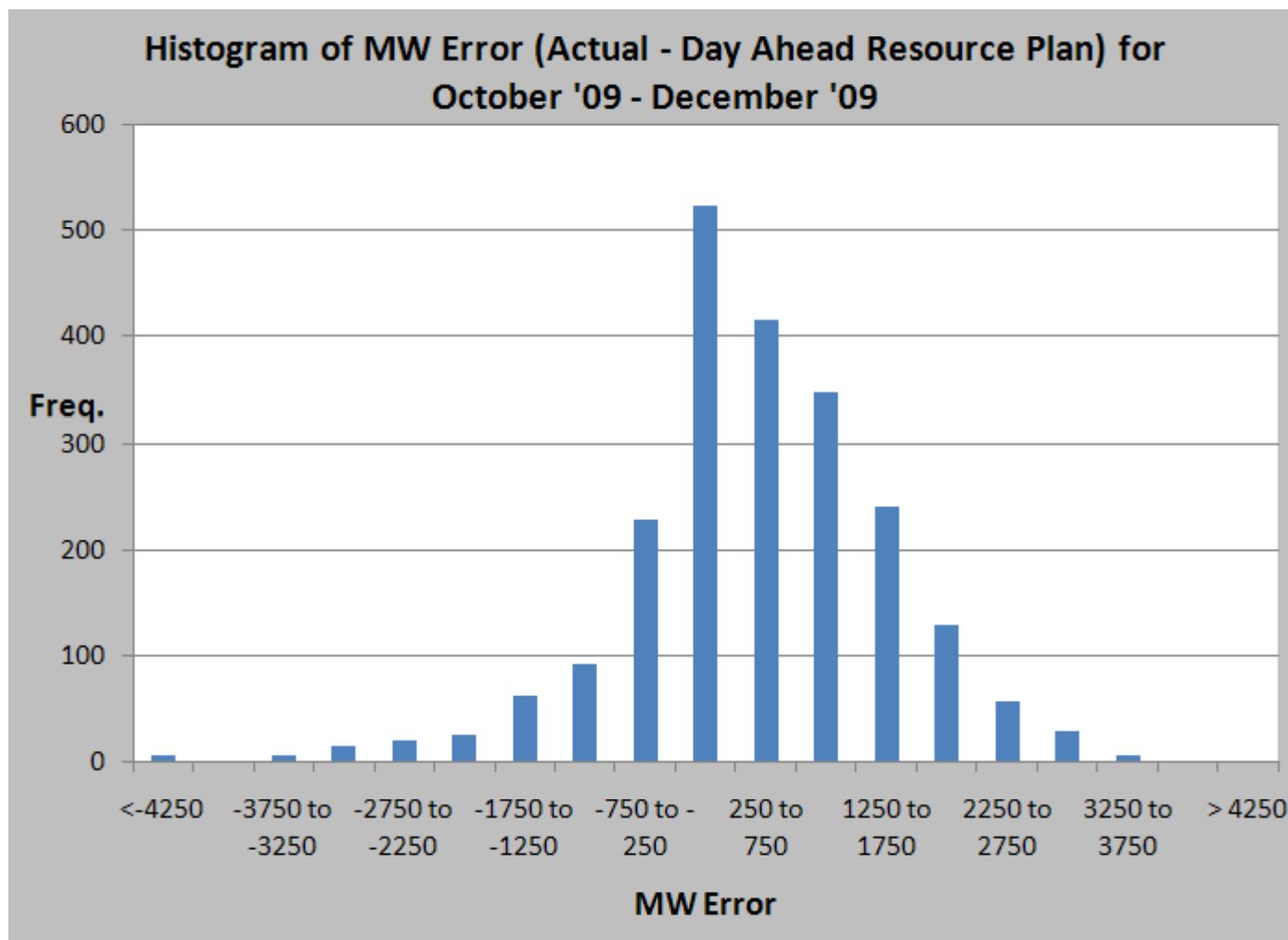
	All Hours	Oct. '09 - Dec. '09	Jan. '10 - Mar. '10	Apr. '10 to Jun. '10	Jul. '10 to Sep. '10
Mean Absolute Percent Error (Divided by Installed Capacity)	9.17%	10.07%	9.93%	9.33%	7.39%
Mean MW Error (Actual - Day Ahead Resource Plan)	201.93	412.86	508.65	110.66	-218.75
Percent of Hours Actual >= Day Ahead Resource Plan	57.65%	66.64%	71.01%	54.30%	38.90%

Histograms of Day-Ahead Forecast Error



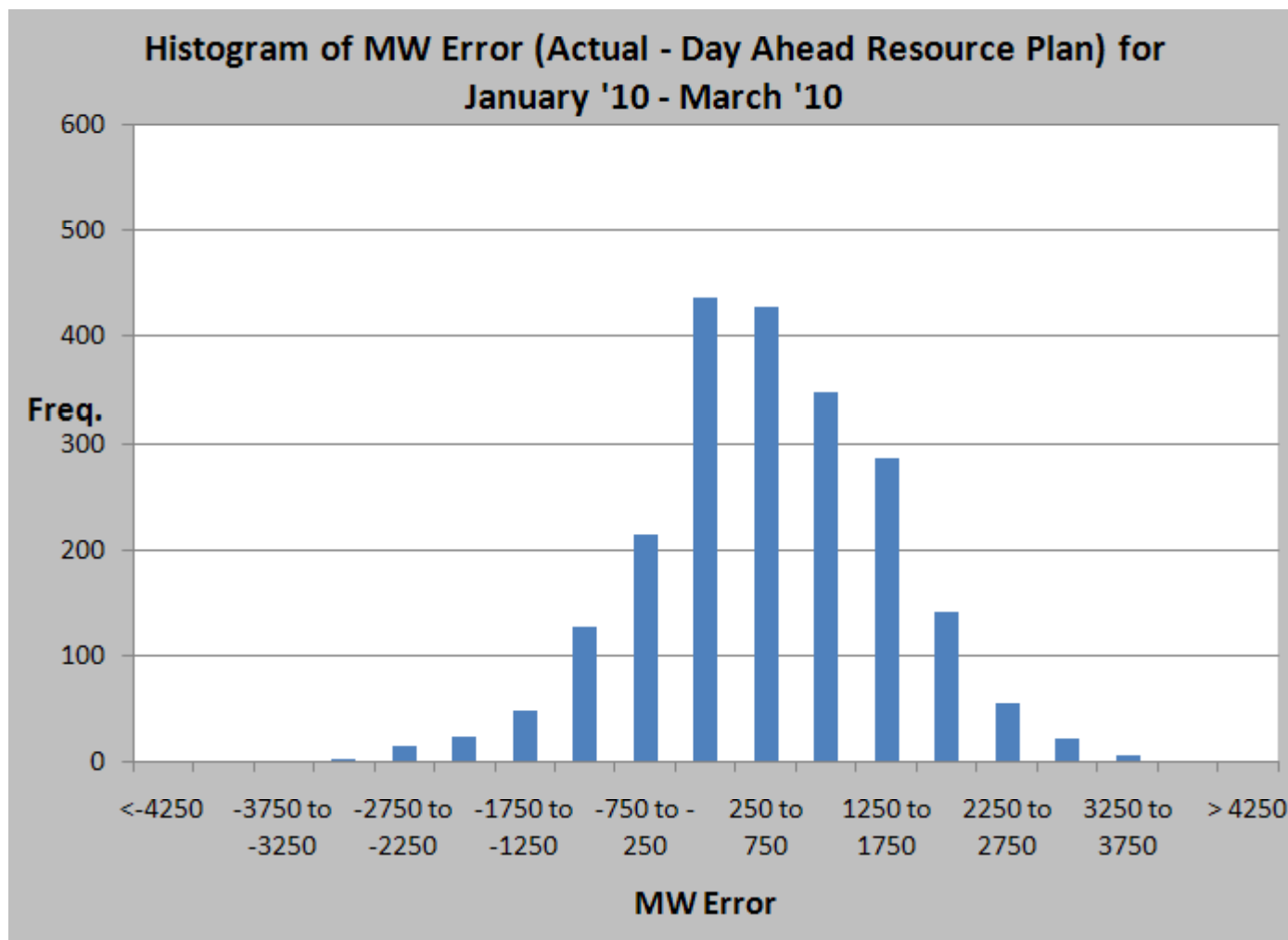
QSEs are required to use the AWST 50% probability of exceedance forecast (80% probability of exceedance forecast prior to 4/1/2010)

Histograms of Day-Ahead Forecast Error cont.



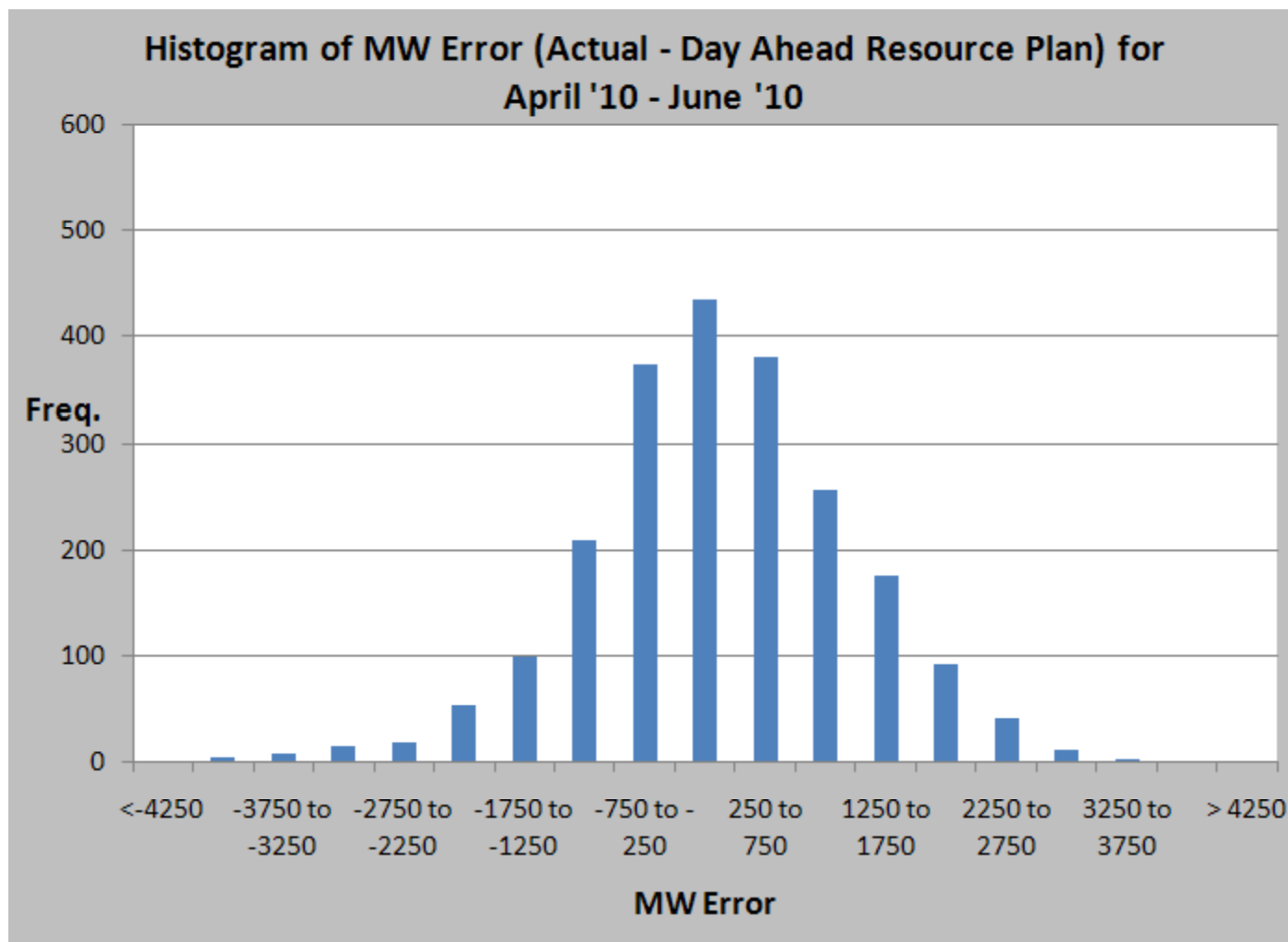
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Histograms of Day-Ahead Forecast Error cont.



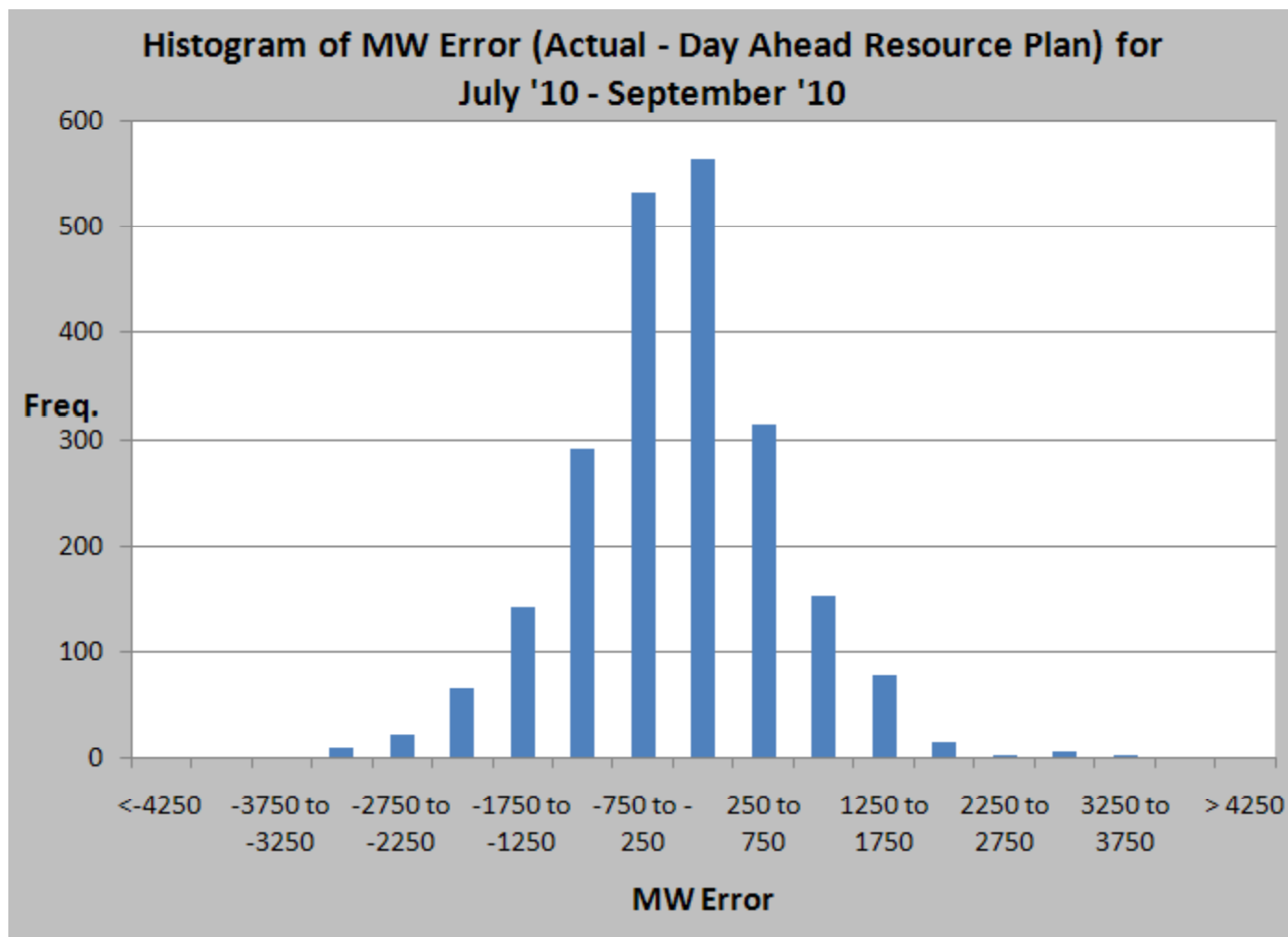
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Histograms of Day-Ahead Forecast Error cont.



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Histograms of Day-Ahead Forecast Error cont.



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Conclusions

- **It continues to be observed that PRR 841 has reduced the tendency to under forecast the wind output**
 - PRR 841 removed the intentional 80% probability of exceedance under forecast bias
 - Between July and September 2010, the forecast on average actually over forecasted the wind
- **The wind forecast accuracy continues to show improvement**
 - At least part of this improved accuracy is likely due to lower wind production levels during the summer months
 - Another part of the improved accuracy is due to the implementation of PRR841 which removed the intentional forecast bias