



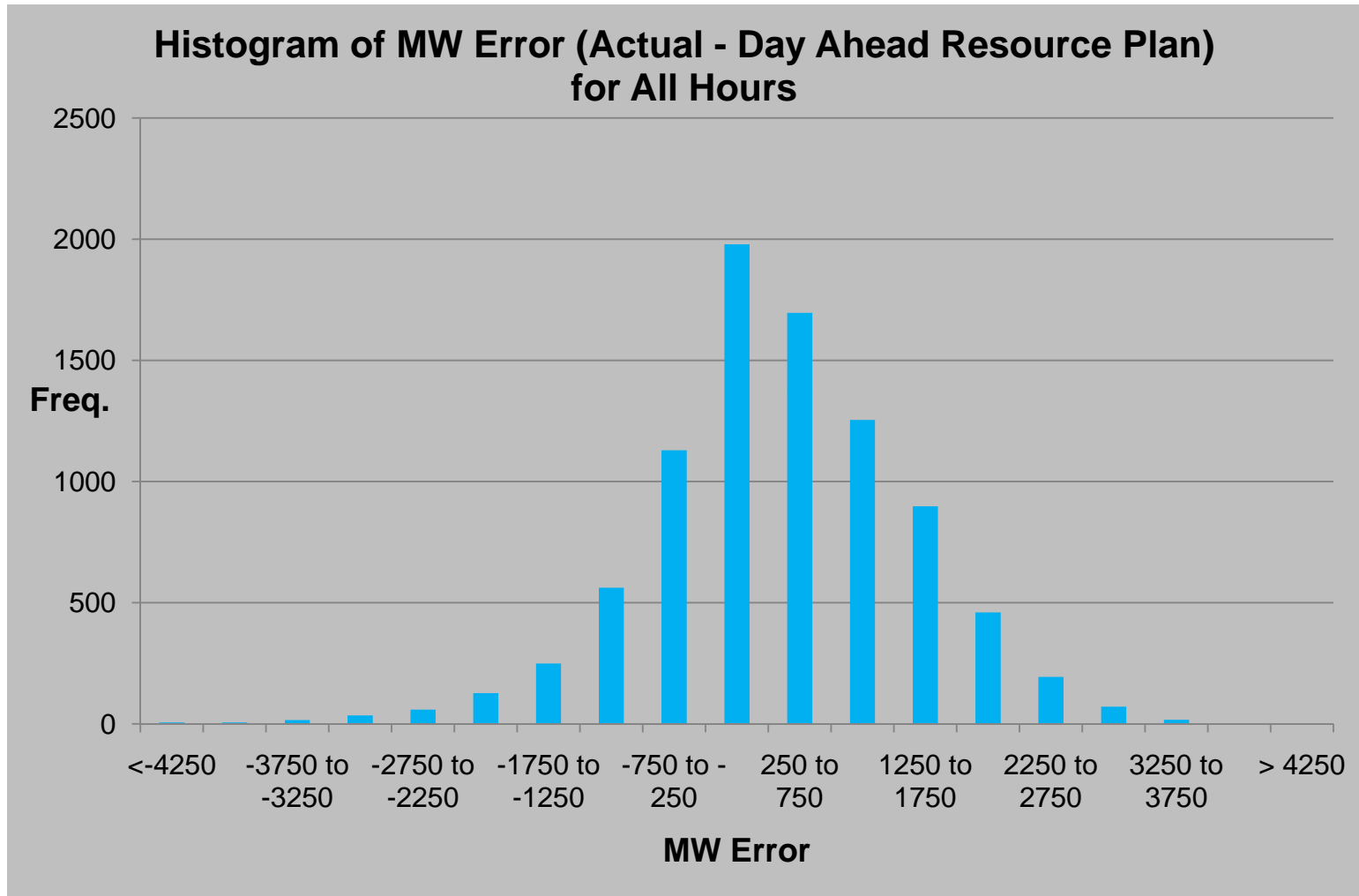
# Update on PRR 763: Use of ERCOT Wind Power Forecasts in the Day-Ahead Resource Plans

## 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 AWS Truewind (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**

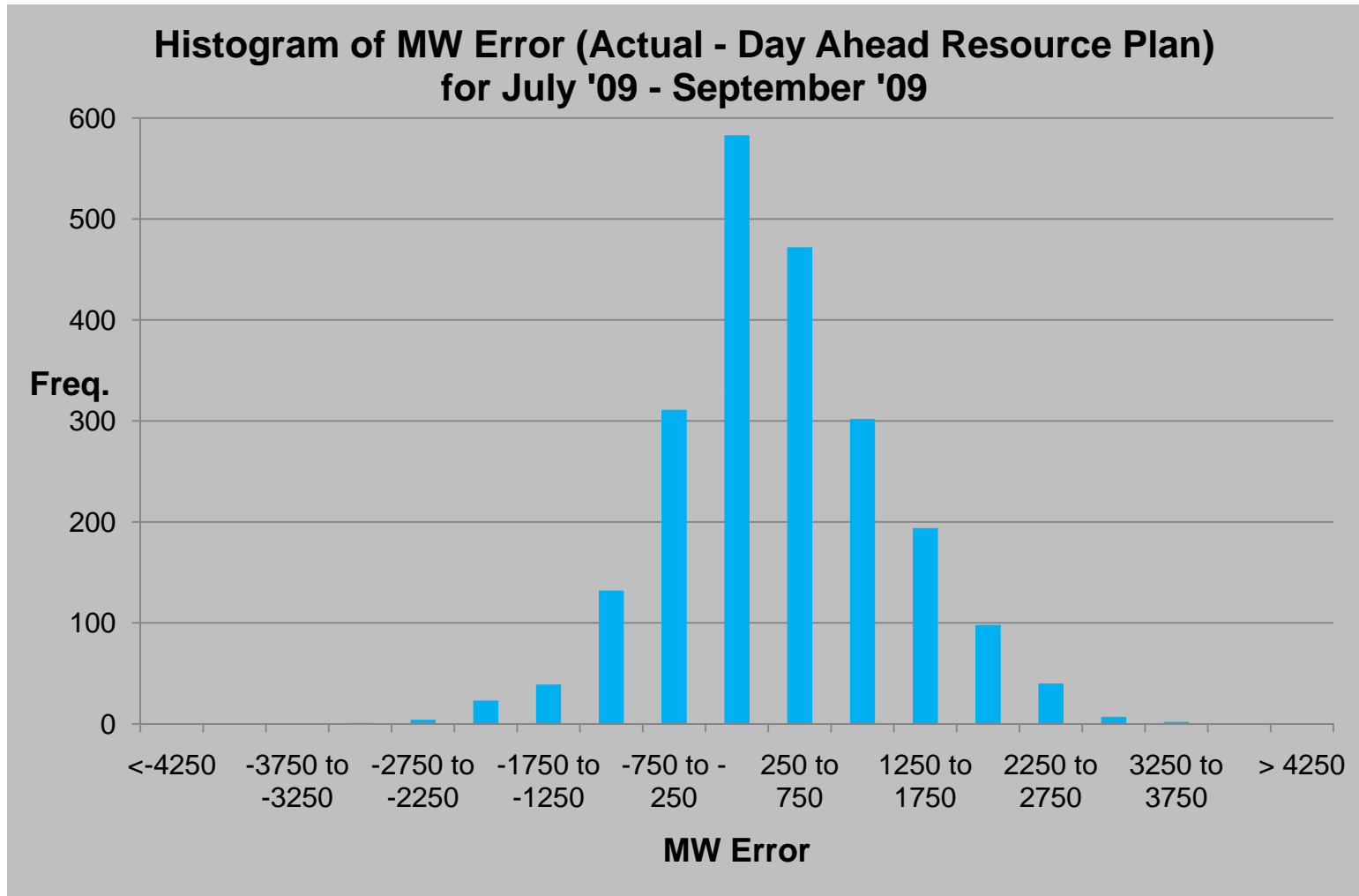
	All Hours	Jul. '09 - Sept. '09	Oct. '09 - Dec. '09	Jan. '10 - Mar. '10	Apr. '10 to Jun. '10
<b>Mean Absolute Percent Error (Divided by Installed Capacity)</b>	9.46%	8.53%	10.07%	9.93%	9.33%
<b>Mean MW Error (Actual - Day Ahead Resource Plan)</b>	342.95	340.77	412.86	508.65	110.66
<b>Percent of Hours Actual &gt;= Day Ahead Resource Plan</b>	64.00%	64.13%	65.78%	70.63%	55.49%

# Histograms of Day-Ahead Forecast Error



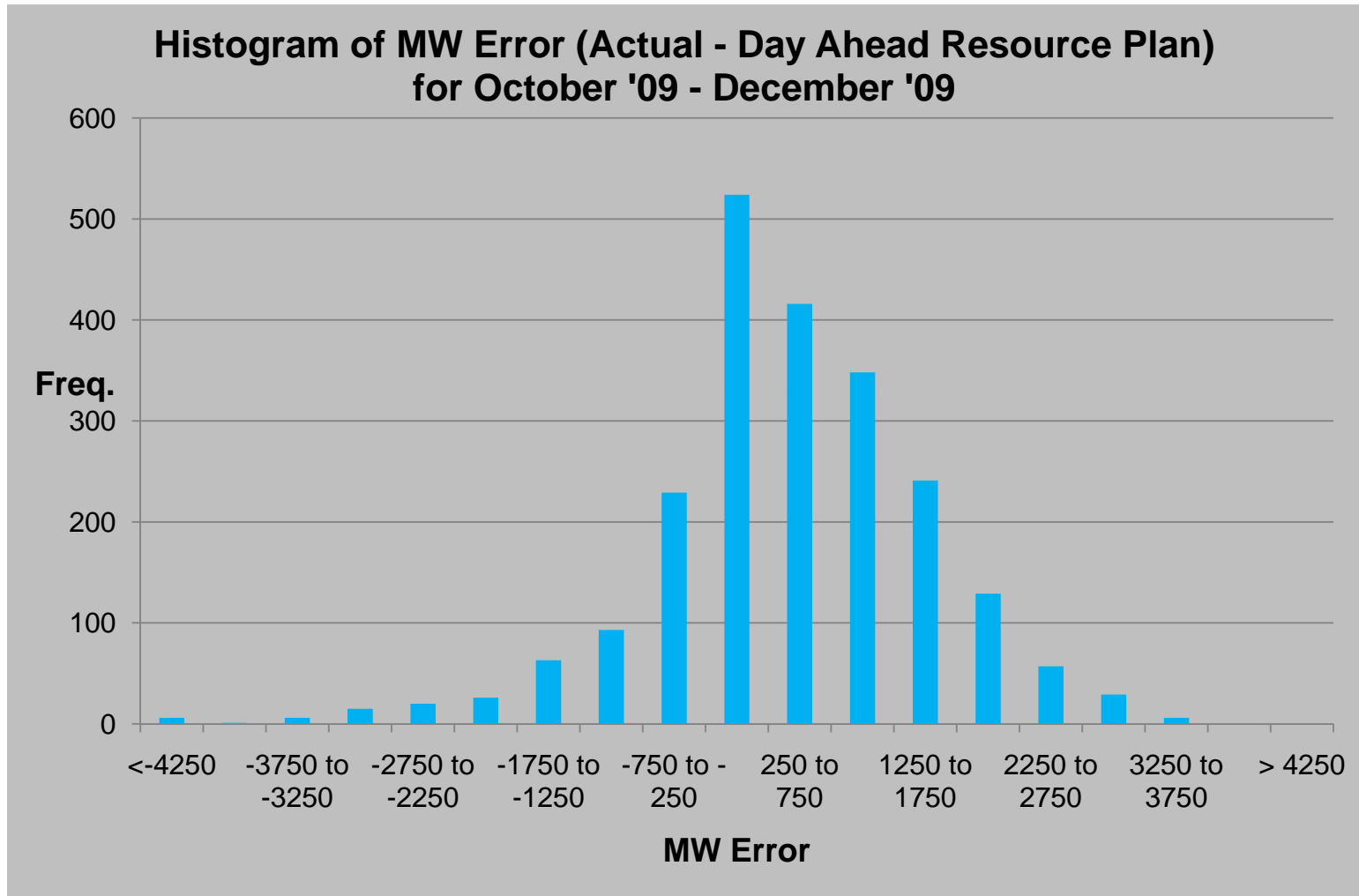
**QSEs are required to use the AWST 50% probability of exceedance forecast (80% probability of exceedance forecast prior to 4/1/2010)**

## Histograms of Day-Ahead Forecast Error cont.



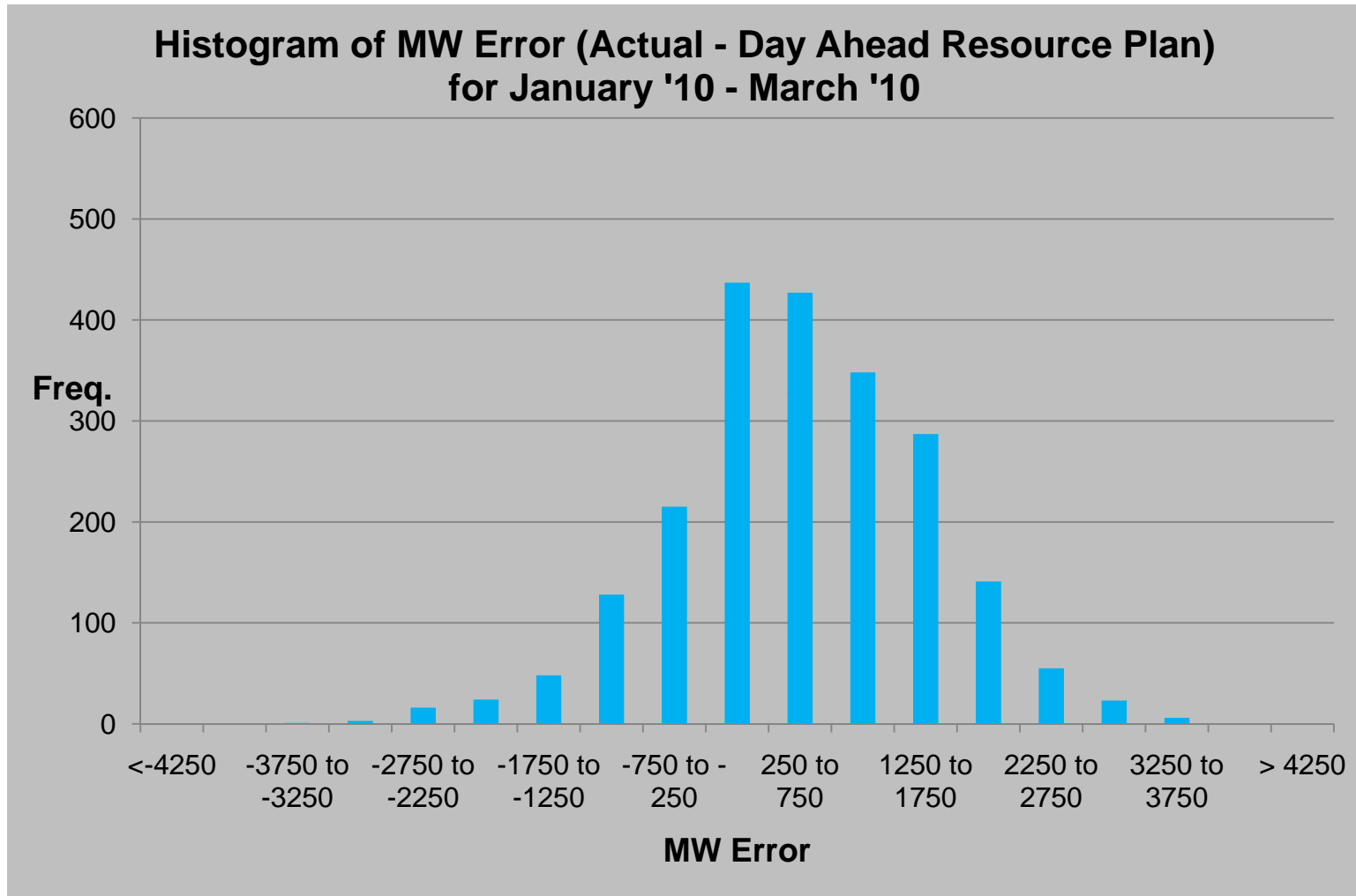
**QSEs are required to use the AWST 50% probability of exceedance forecast (80% probability of exceedance forecast prior to 4/1/2010)**

## Histograms of Day-Ahead Forecast Error cont.



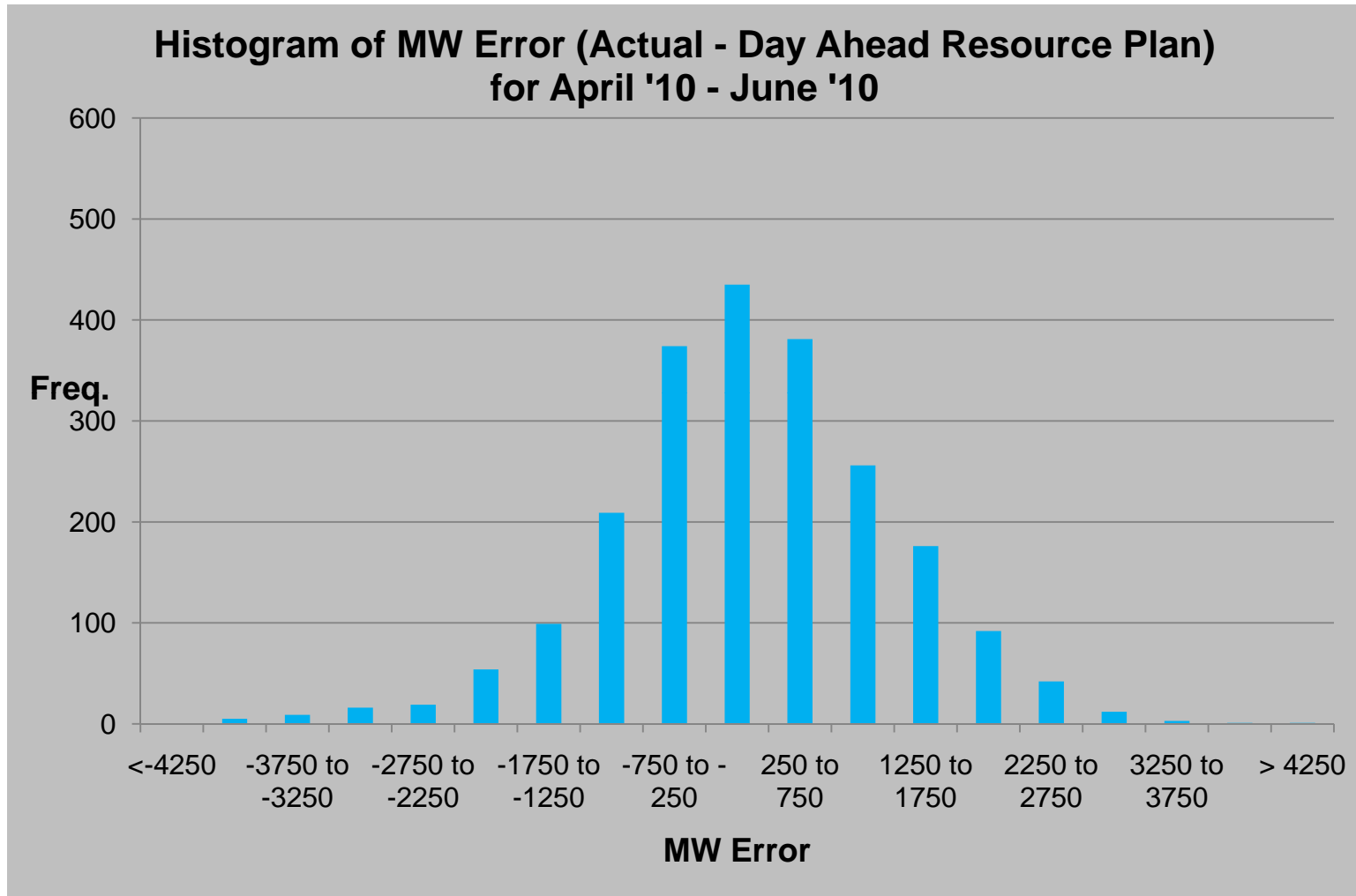
**QSEs are required to use the AWST 50% probability of exceedance forecast (80% probability of exceedance forecast prior to 4/1/2010)**

## Histograms of Day-Ahead Forecast Error cont.



**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.



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

## Conclusions

- **PRR 841 appears to have reduced the tendency to under forecast the wind output**
  - PRR 841 removed the intentional 80% probability of exceedance under forecast bias
- **No significant change in the forecast accuracy**
  - Forecast error was less in the summer months due to less wind production
  - The average error was reduced by PRR841 which indicates the amount of over and under forecast is trending toward a 50% probability of exceedance forecast as intended