



Grid Operations and Planning Report

ERCOT Board of Directors
December 15, 2009

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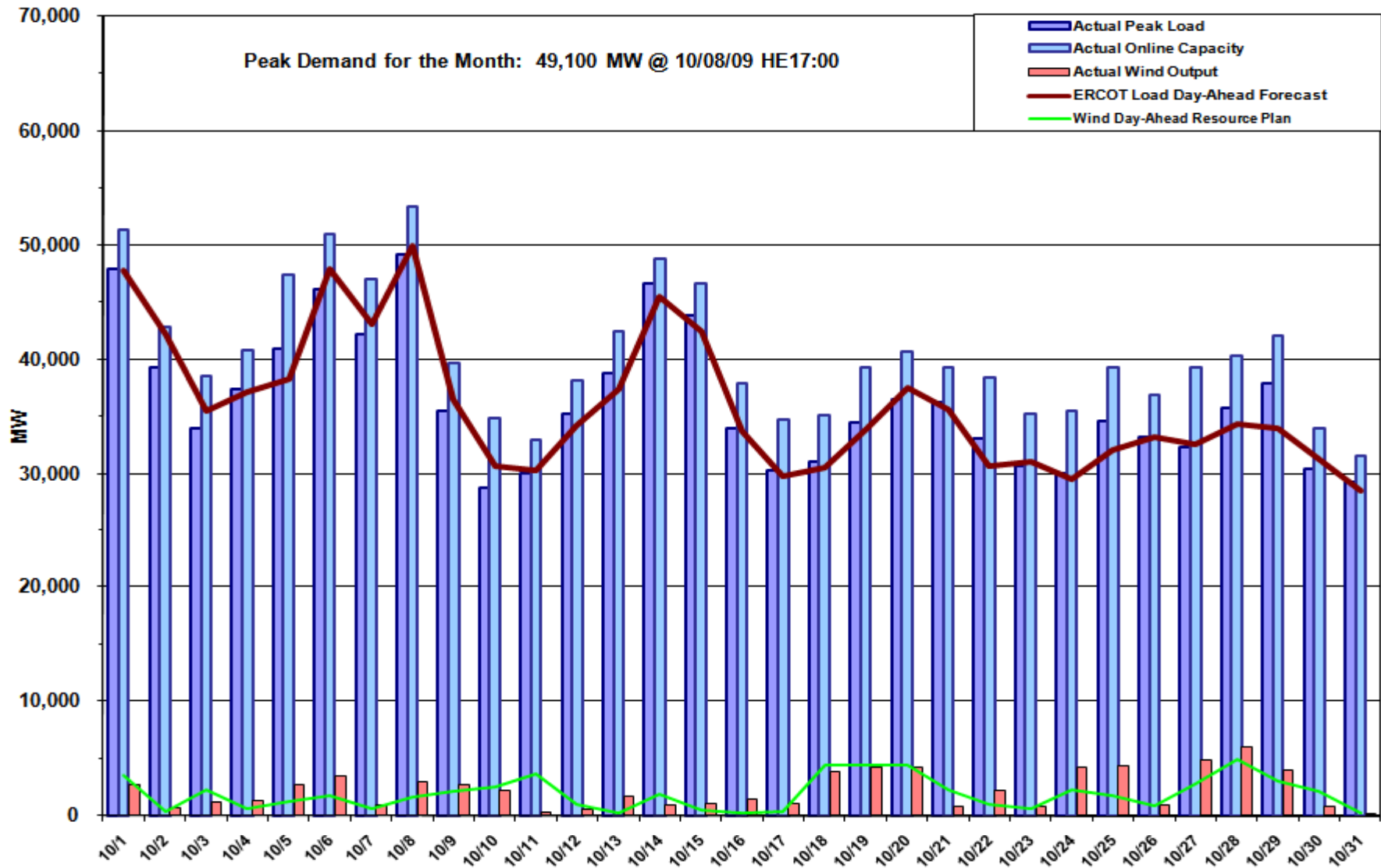
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- **November 2009 Peak Demand: Actual vs. Forecast On-line Resources: Total at Peak and Wind Generation**
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 - Generation Interconnection Requests
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- **October 2009 Operations**

- The peak demand of 49,100 MW on October 8th was less than the long term forecast peak of 49,863 MW.
- Day-ahead load forecast error for October was 2.92%.
- Eight Advisories for Adjusted Responsive Reserve (ARR) below 3000 MW. No Watches for ARR under 2500 MW or Energy Emergency Alert (EEA) events.
- Two transmission watches

- **November 2009 peak demand on November 30th of 36,840 MW**
- **228 active generation interconnect requests totaling over 78,000 MW as of November 30, 2009. Six requests and 1,000 MW more than October 31.**
- **8,916 MW wind capacity on line November 30, 2009. No increase from October**

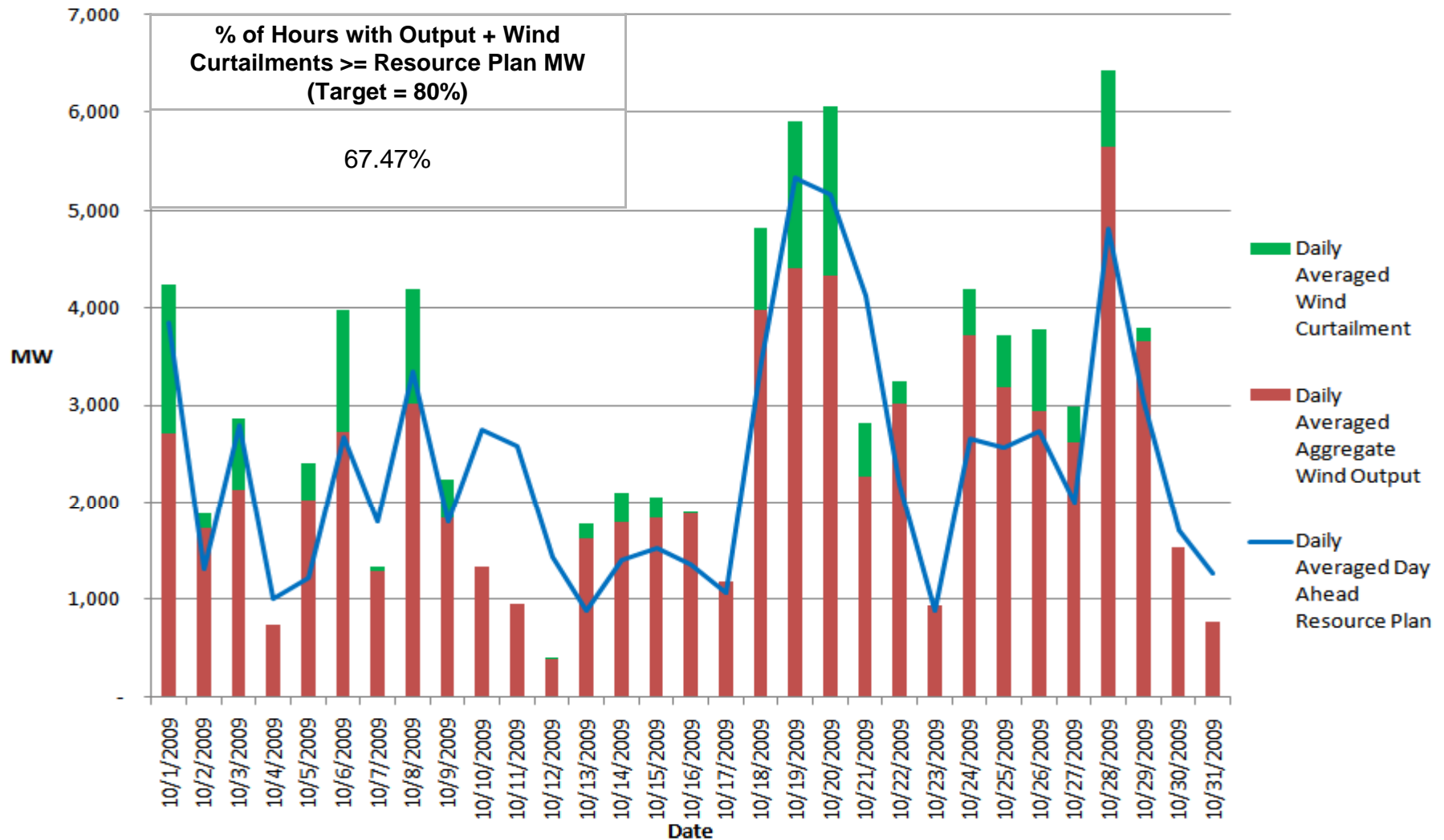
Daily Peak Demand: Hourly Average Actual vs Forecast, Resource Plan & On-line Capacity at Peak



Note: All data are hourly averages during the peak load hour obtained from Resource Plans, and EMMS.

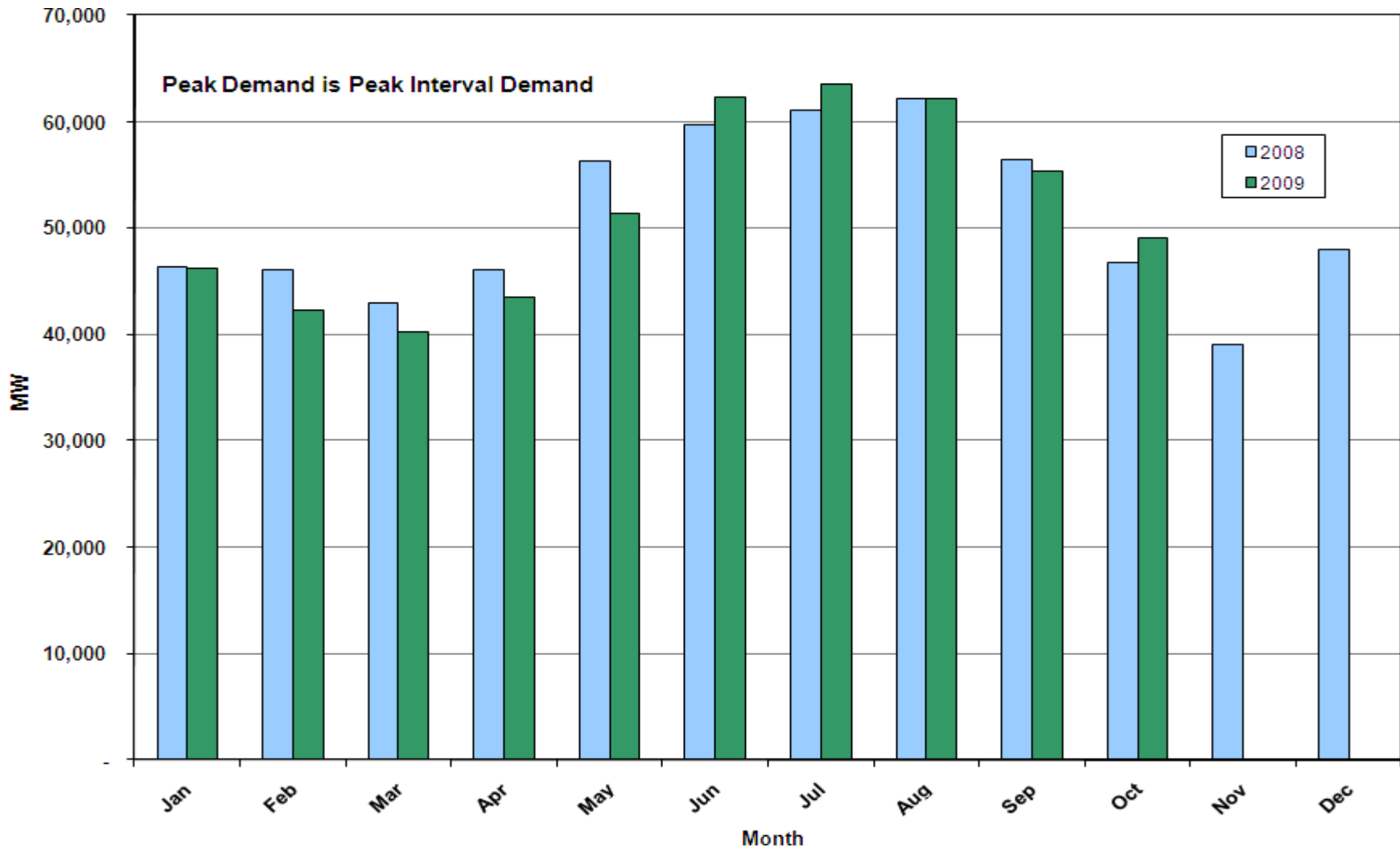


Actual Wind Output w/ Curtailment Added Back Vs Wind Day-Ahead Resource Plan Based on AWS Forecast for All Hours

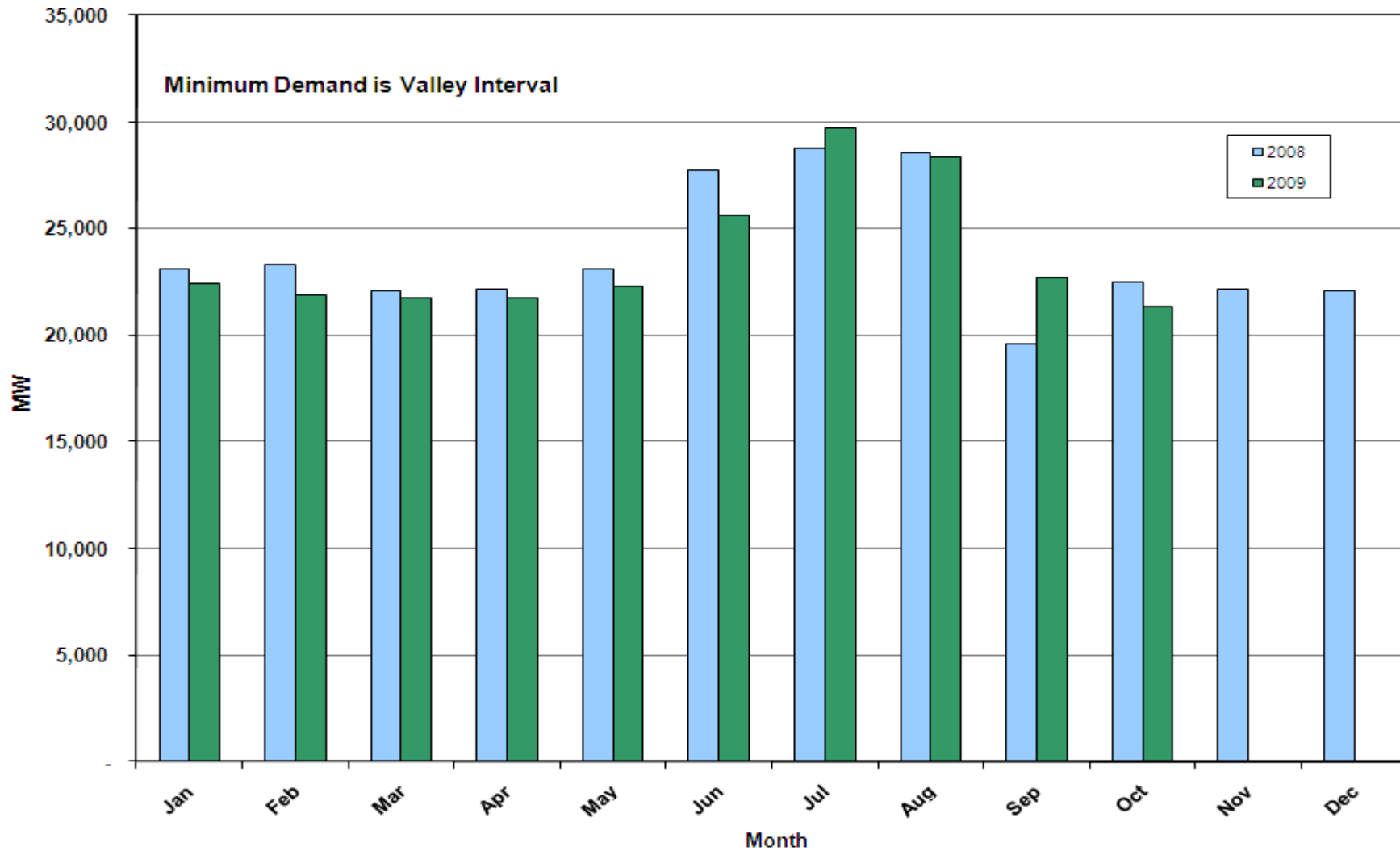


Note: QSEs must use AWST 80% probability of exceedance forecast for Day-Ahead Resource Plans

Monthly Peak Demand: Actual



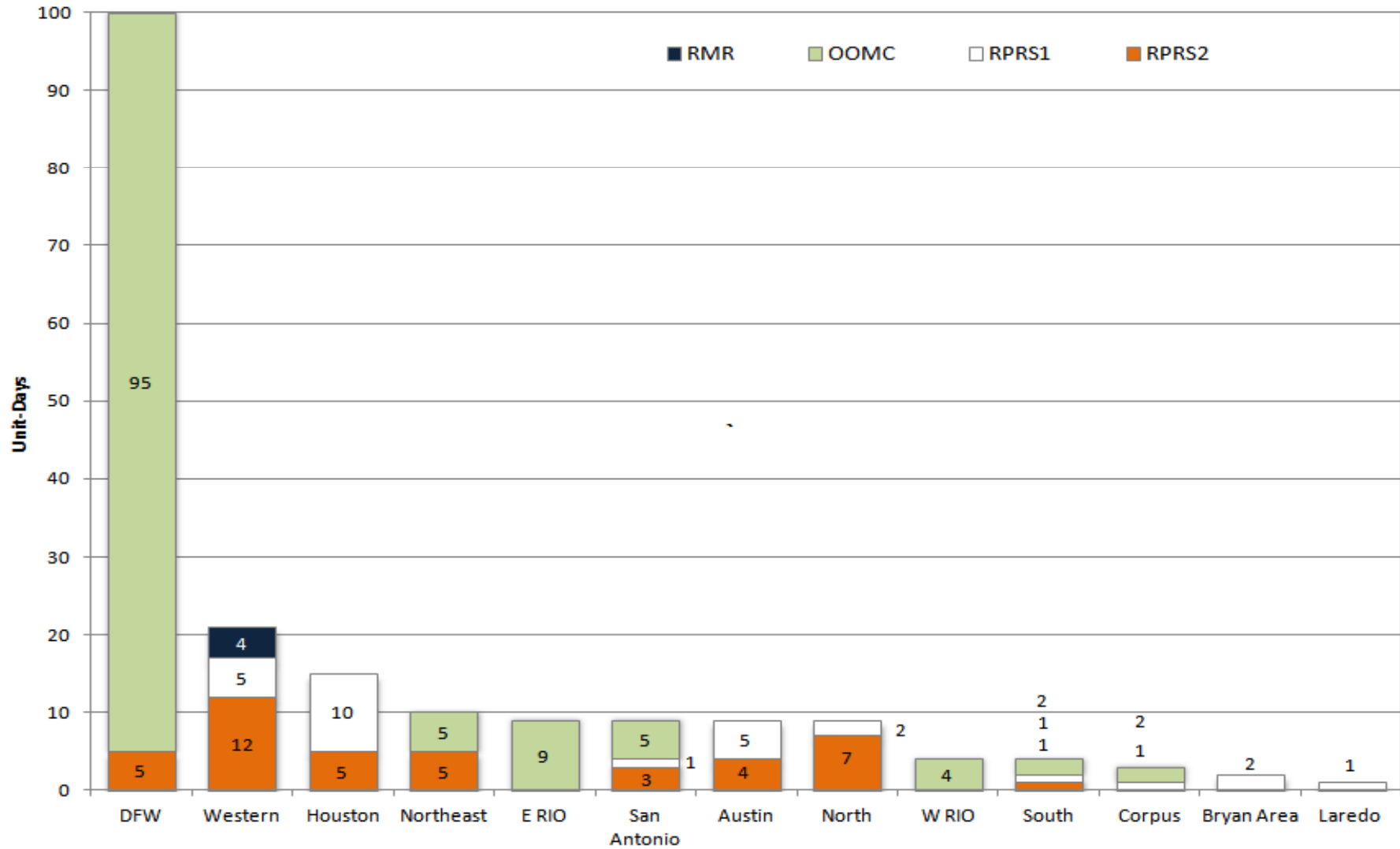
Monthly Minimum Demand: Actual



Day-Ahead Load Forecast Performance in October 2009

	Mean Absolute Percent Error (MAPE) for ERCOT Mid-Term Load Forecast (MTLF) Run at 16:00 Day Ahead				
	2006 MAPE	2007 MAPE	2008 MAPE	2009 MAPE (YTD)	October 2009 MAPE
Average Annual MAPE	3.79	3.55	3.30	3.18	2.92

Capacity Purchases of RMR, OOMC & RPRS to Manage Local Congestion in October 2009



Zonal Congestion

CSC	Oct 08 Days	Aug 09 Days	Sept 09 Days	Oct 09 Days	Last 12 Months Total Days (Oct 08 – Oct 09)
North – Houston	15	4	8	7 Oct – 1, 4-7, 15, 16,	66
North – West	0	0	0	0	4
West – North	13	11	5	7 Oct – 6, 18, 19, 24, 27- 29	180
South – North	0	0	1	0	7
North - South	0	0	2	0	36

Significant System Incidents in October 2009

- **October 12th , 18th**
 - ERCOT EMS System down due to the application database Memory Replication Service slowing, causing the data in all the EMMS Applications to go out-of-date. Down 32 minutes on the 12th and three instances on the 18th for a total of 94 minutes.
- **October 28th**
 - Market Notice issued for A/S Market clearing delay of 22 minutes.

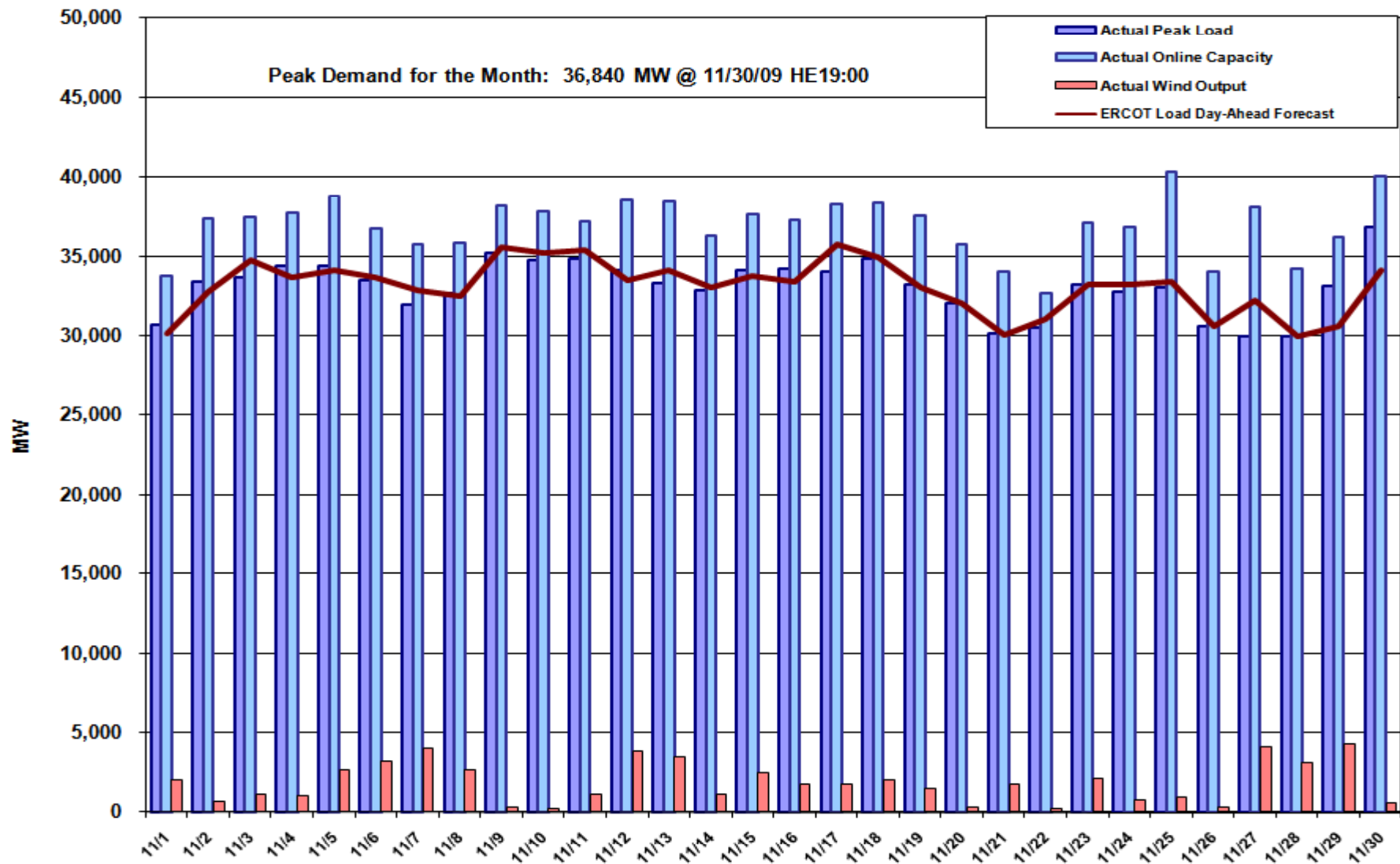
Advisories and Watches in October 2009

- **Advisories issued for Adjusted Responsive Reserve (ARR) below 3000 MW.**
 - Issued 8 Days.
- **No Watches issued for ARR below 2500 MW.**
- **Transmission Watches**
 - October 5th : Transmission Watch issued due to a forced generator outage causing the post contingency loss of San Miguel 138KV - San Miguel 69KV overloads Derby - Pearsall 69KV. ERCOT received emergency energy from CFE across the Laredo VFT.
 - October 13th : Transmission Watch issued due to forced transmission outage. ERCOT initiated a Block Load Transfer (BLT) at Presidio Substation transferring up to 5 MW of ERCOT load to CFE.
- **No EEA's in October 2009**

Other Items

- **October 13th**
 - Held Real-time Balancing deployments for interval ending 10:45 due to short-term load forecast error. Resumed with interval ending 11:00 deployments.
- **October 19th, 20th, 21st, 22nd, 29th**
 - ERCOT initiated a Block Load Transfer (BLT) at Estelline Substation transferring up to 1 MW of ERCOT load to Southwest Power Pool (SPP) to accommodate a planned transmission outage.
- **October 21st**
 - Held Real-time Balancing deployments for interval ending 21:00 due to short-term load forecast error. Resumed with interval ending 21:15 deployments.

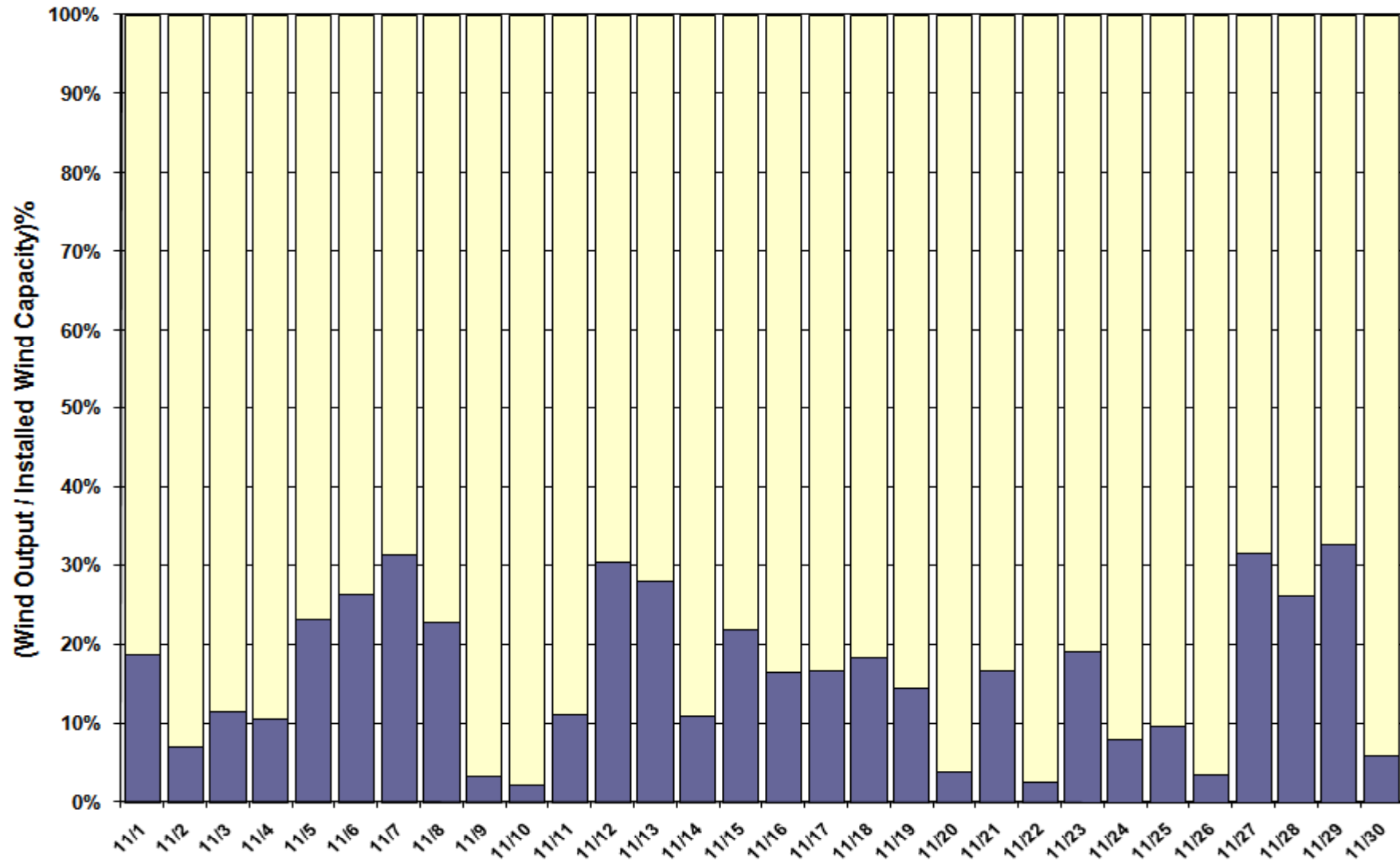
November 2009 Daily Peak Demand: Hourly Average Actual vs Forecast, Resource Plan & On-line Capacity at Peak



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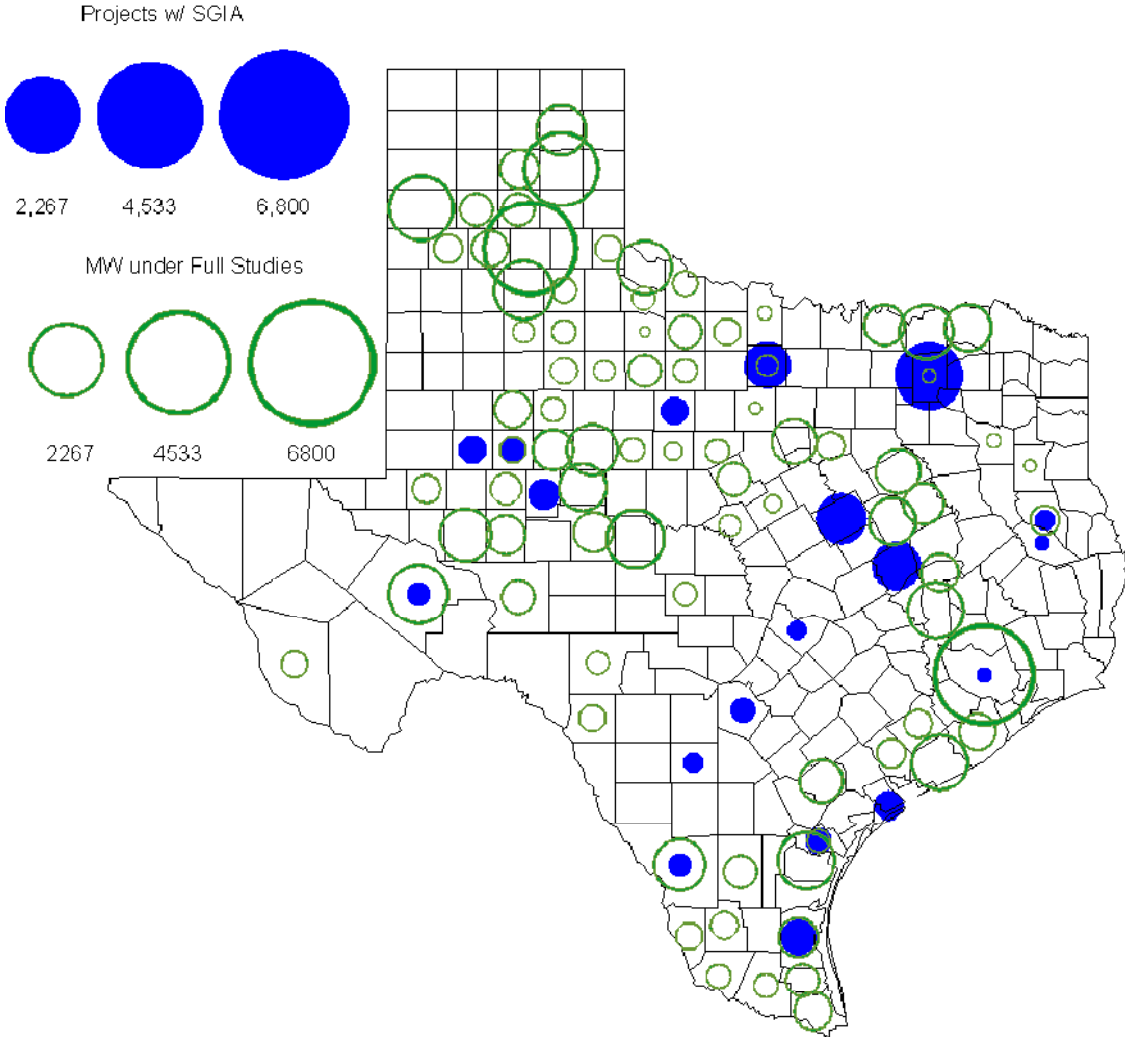
November 2009 Actual Wind Output as a Percentage of the Total Installed Wind Capacity at Peak



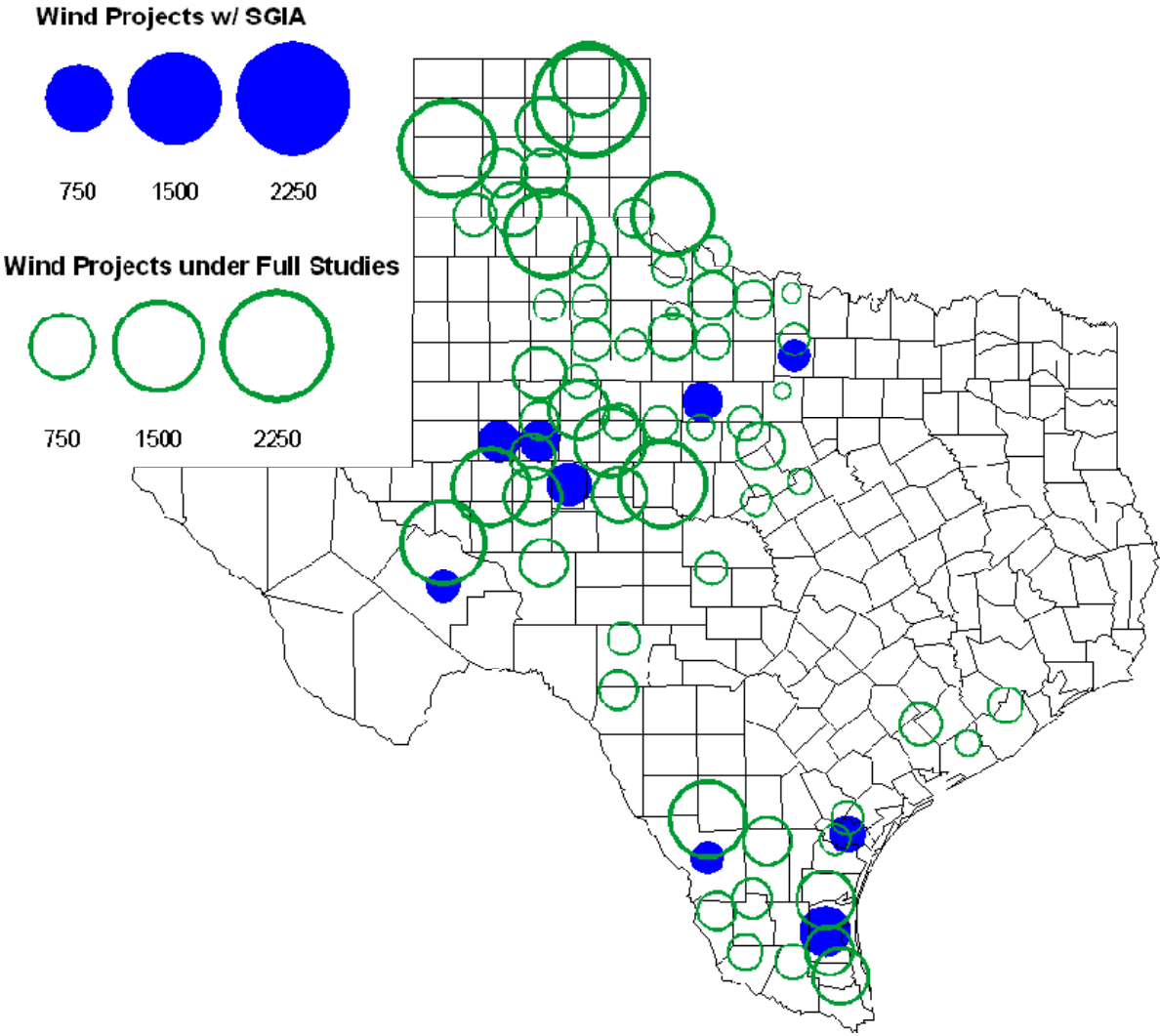
Planning Summary

- **ERCOT is currently tracking 228 active generation interconnection requests totaling almost 78,000 MW. This includes over 45,000 MW of wind generation.**
- **Regional Planning is currently reviewing proposed transmission improvements worth a total of \$1,031.95 Million**
- **Transmission Projects approved in 2009 total \$405.1 Million**
- **All projects (in engineering, routing, licensing and construction) total approximately \$9.5 Billion**
- **Transmission Projects energized in 2009 total about \$538.6 Million**

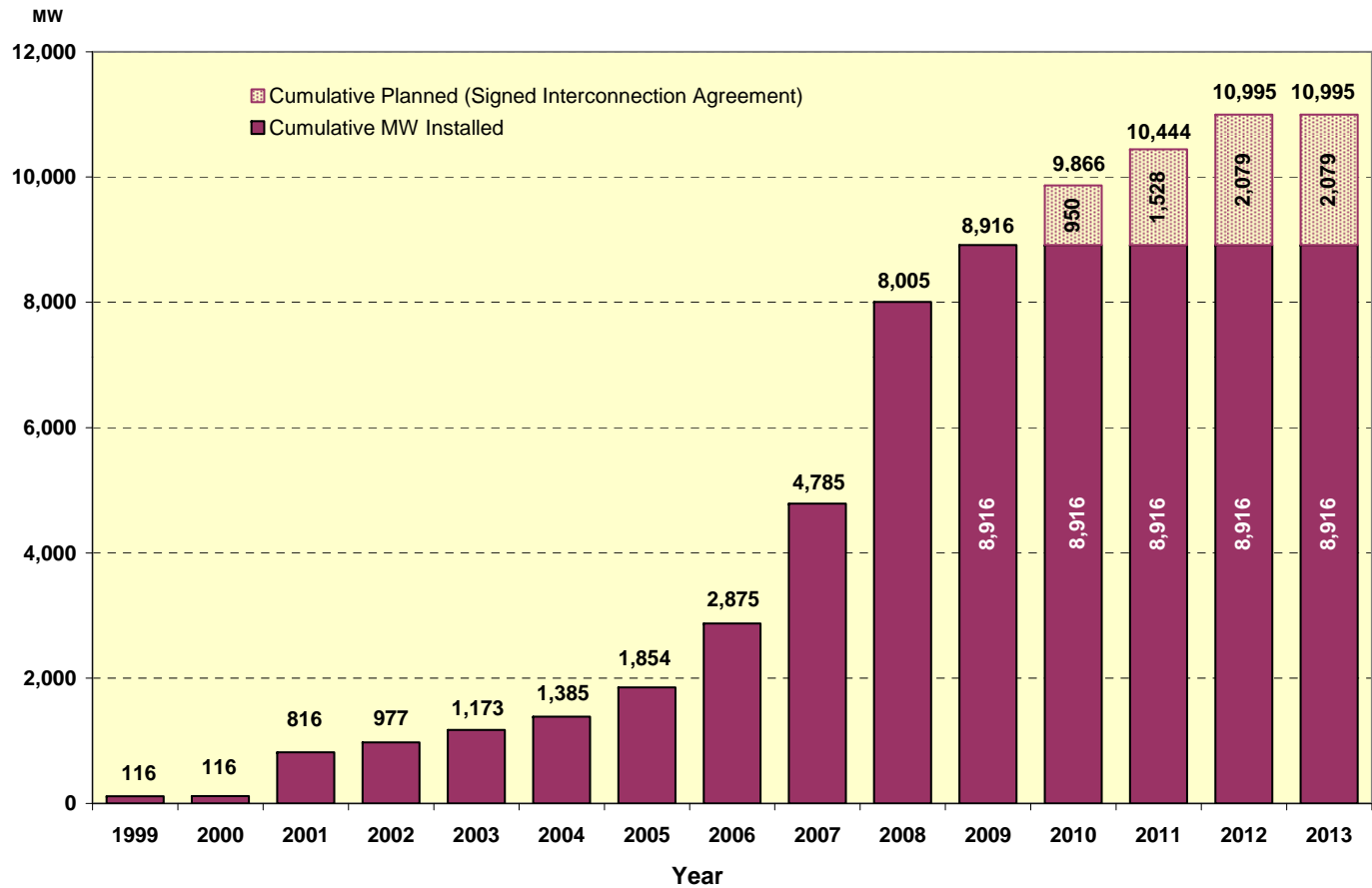
County Location of Planned Generation with Interconnection Requests (all fuels) November 2009



County Location of Planned Generation with Interconnection Requests (Wind) November 2009

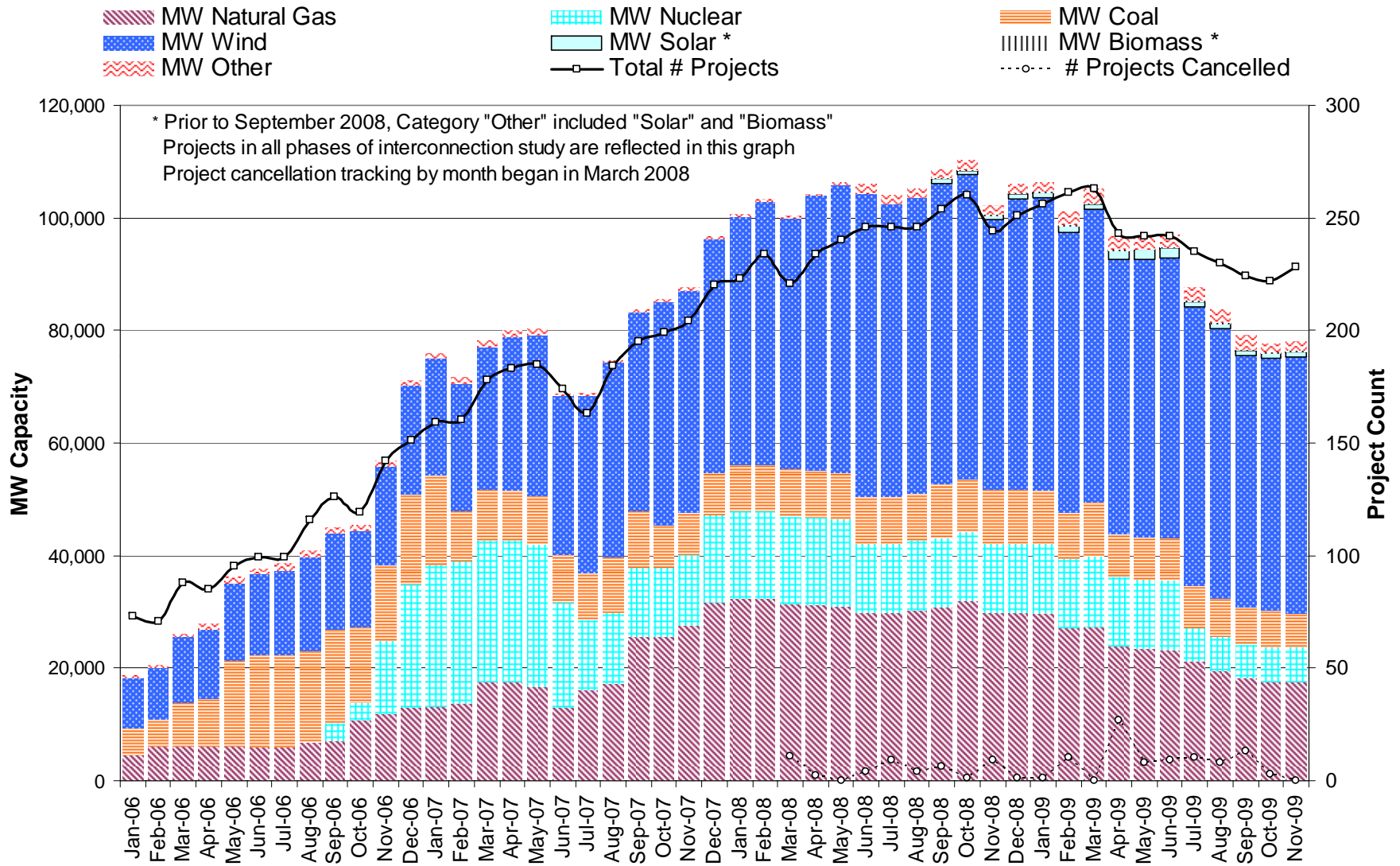


Wind Generation



(as of November 30, 2009)

Generation Interconnection Activity by Fuel



Generation Interconnection Activity by Project Phase

