



# Grid Operations and Planning Report

Kent Saathoff

**ERCOT Board of Directors  
November 16, 2010**

# Content

---

- **Summary**
- **October 2010 Operations**
  - Peak Demand: Actual vs. Forecast
    - On-line Resources: Total at Peak and Wind
  - CPS1 Monthly Performance
  - Day-Ahead Load Forecast Performance
  - Out of Merit Capacity Order (OOMC) & Replacement Reserve (RPRS) Purchases
  - Zonal Congestion
  - Advisories, Watches and EEAs
- **Planning Activities**
  - Summary
  - Generation Interconnection Requests
  - Wind Capacity

# Summary

---

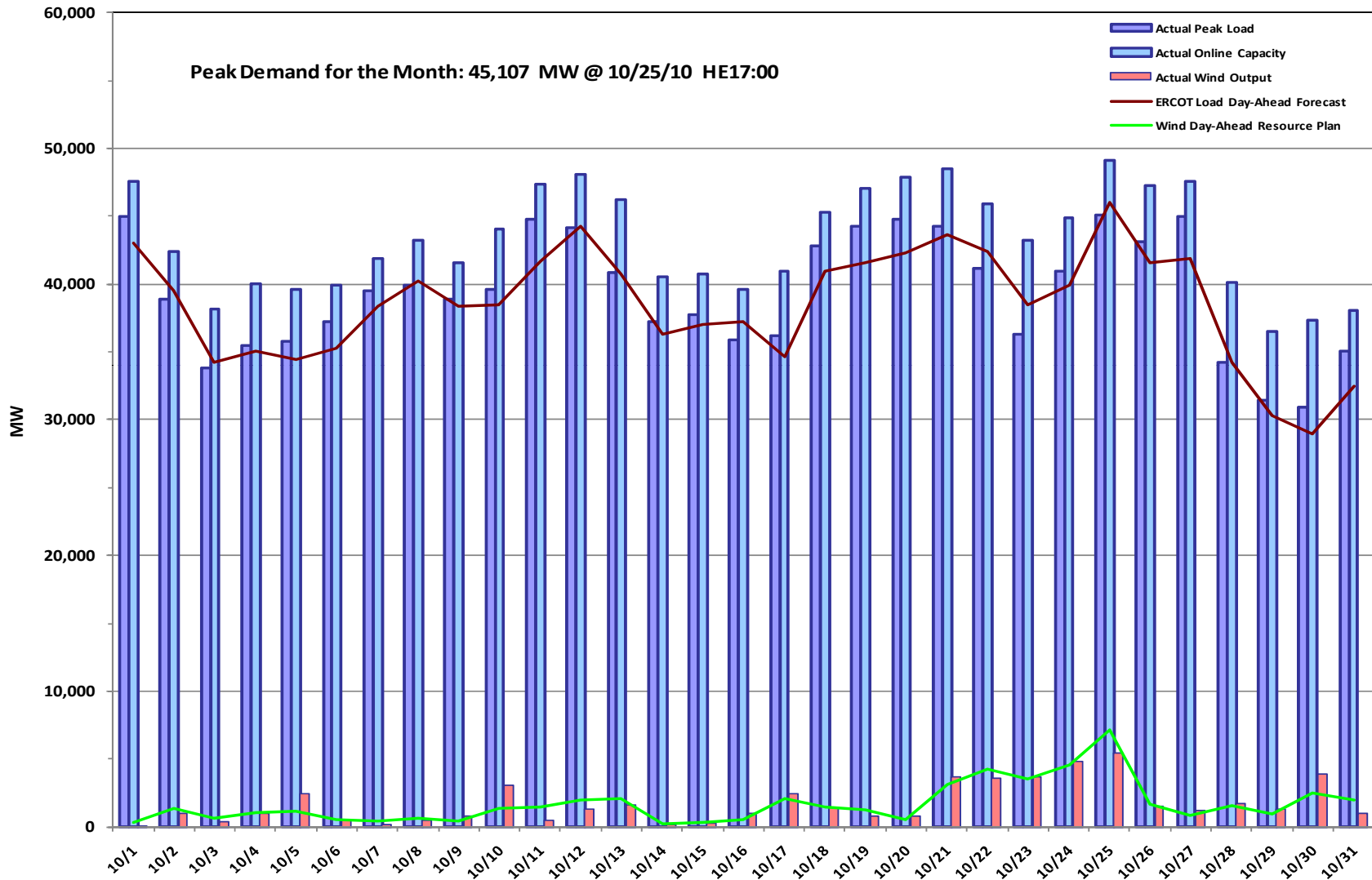
- **October 2010 Operations**

- The peak demand of 45,107 MW on October 25<sup>th</sup> was less than the long term forecast peak of 46,052 MW and less than the October 2009 actual peak demand of 49,090 MW.
- Day-ahead load forecast error for October was 2.37%.
- Advisory for Adjusted Responsive Reserve (ARR) below 3000 MW issued six days
- No Watch for ARR under 2500 MW
- No Energy Emergency Alert (EEA) event
- No Transmission Watches issued

- **194 active generation interconnect requests totaling over 65,000 MW as of October 31, 2010. Six more requests than September 30.**

- **9,467 MW wind capacity on line October 31, 2010. A 150 MW increase from September 30.**

# October 2010 Daily Peak Demand: Hourly Average Actual vs. Forecast, Resource Plan & On-line Capacity at Peak

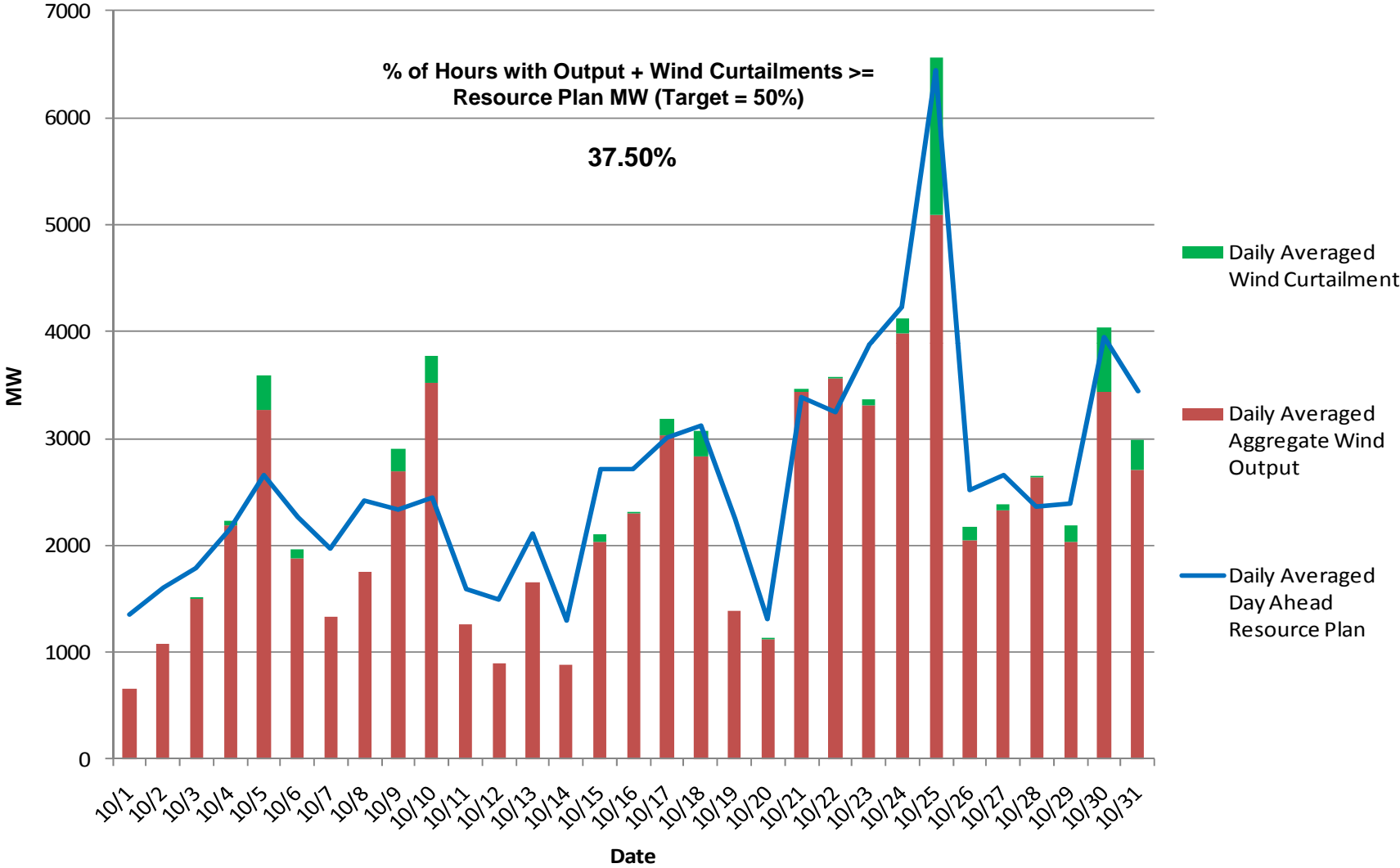


Note: All data are hourly averages during the peak load hour obtained from Resource Plans, and EMMS.



16 November 2010

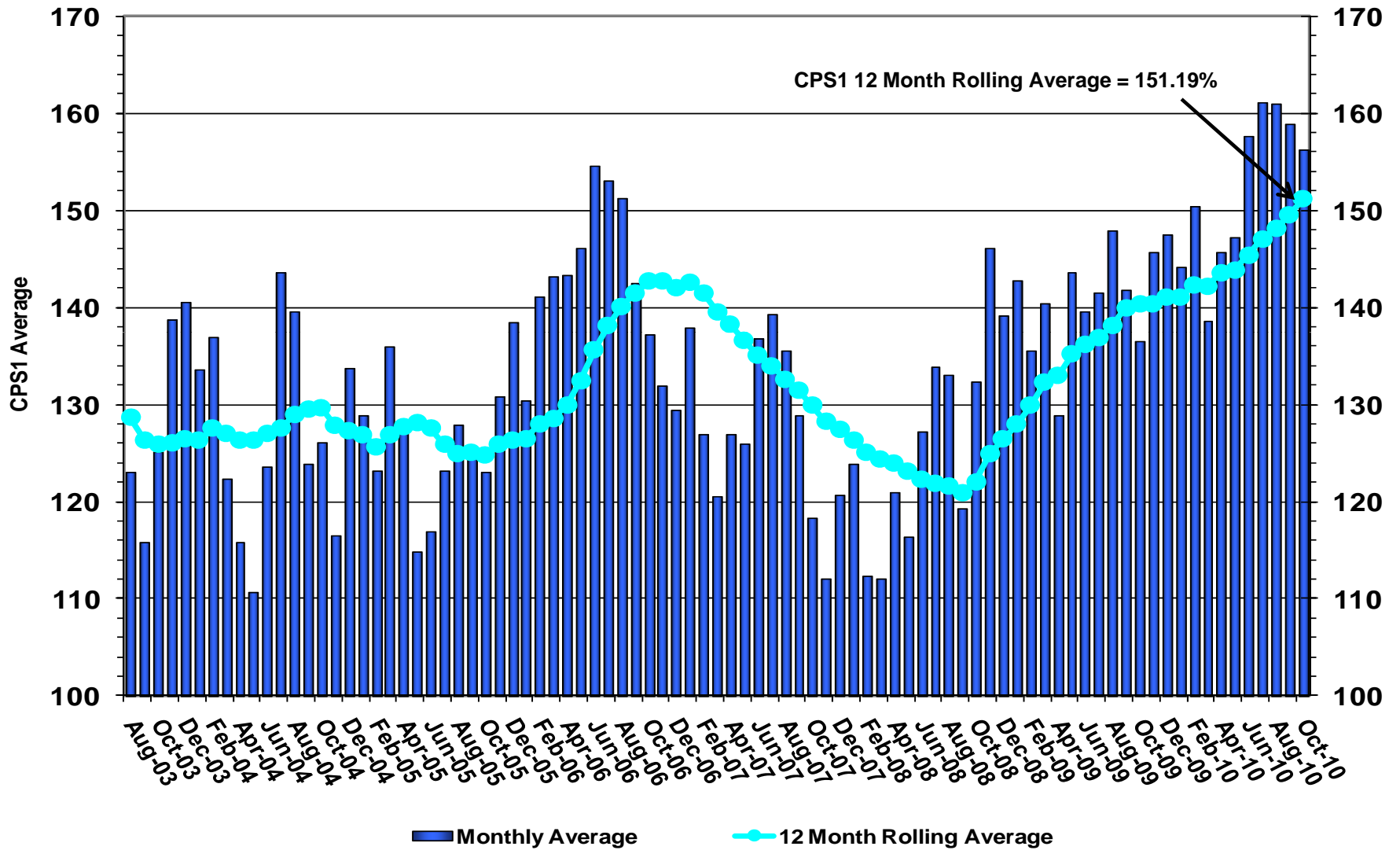
# October 2010: Actual Wind Output w/ Curtailment Added Back vs. Wind Day-Ahead Resource Plan Based on AWS Forecast for All Hours



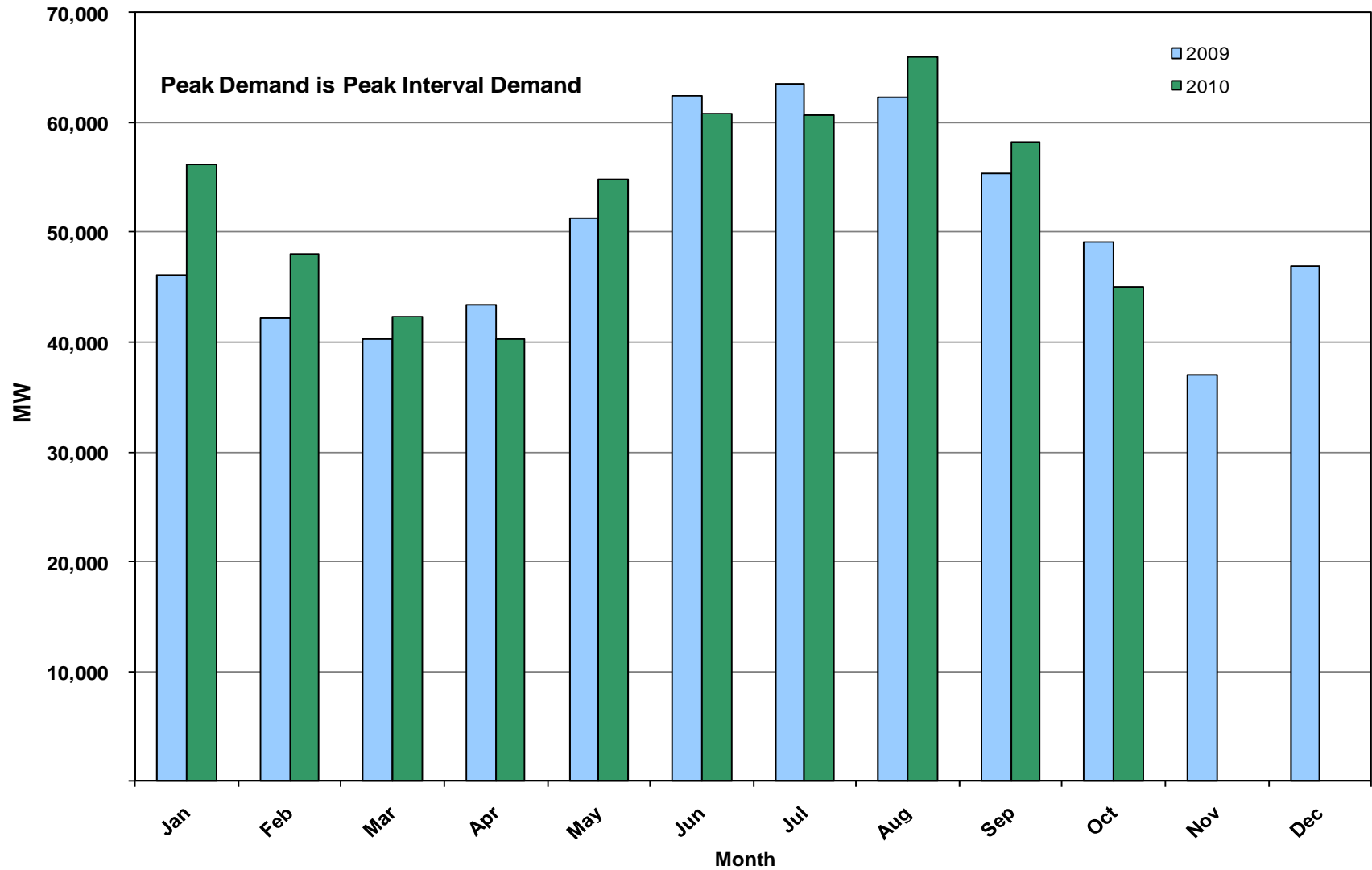
Note: QSEs must use AWST 50% probability of exceedence forecast for Day-Ahead Resource Plans

16 November 2010

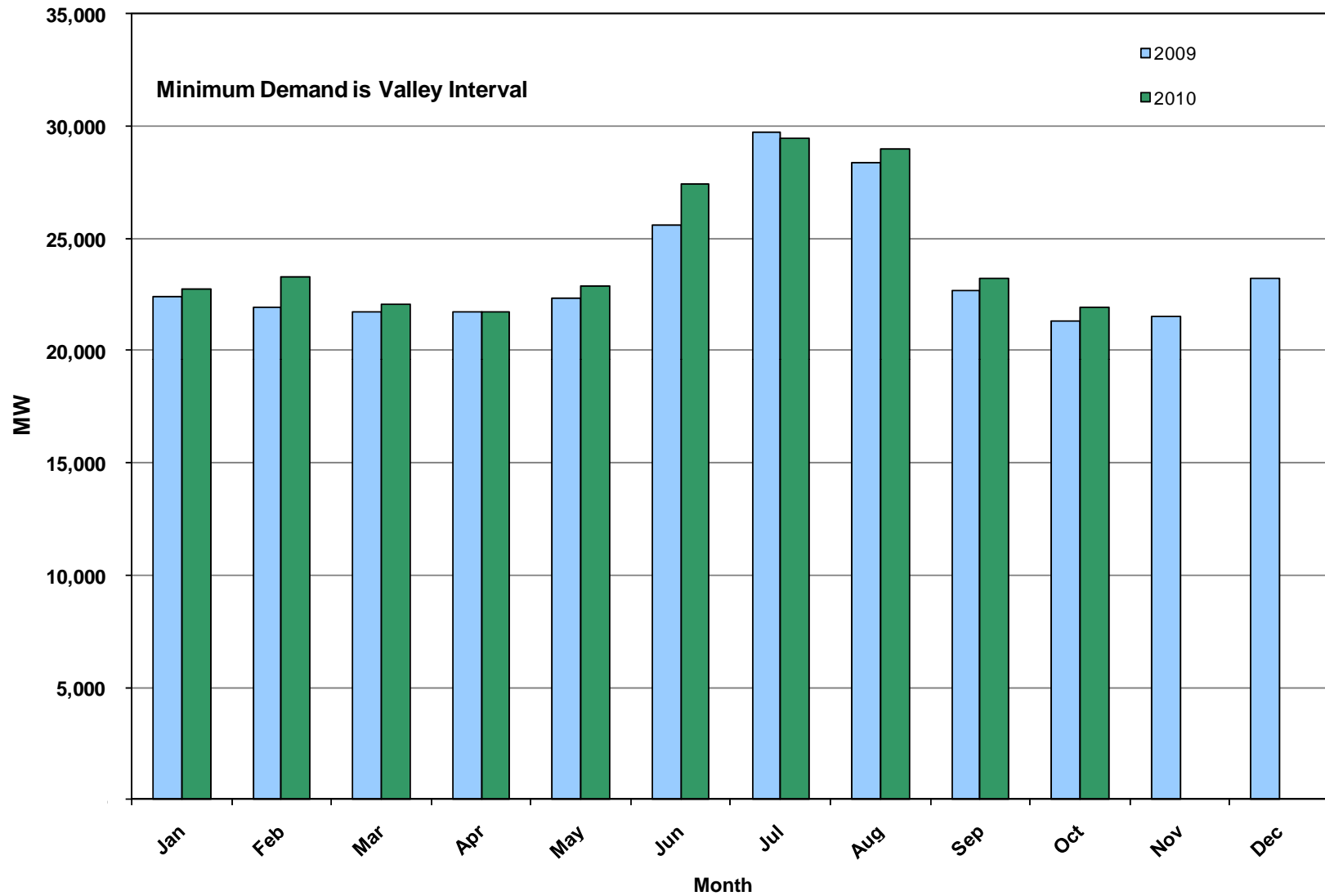
# October 2010 ERCOT's CPS1 Monthly Performance



# October 2010: Monthly Peak Demand: Actual



# October 2010: Monthly Minimum Demand: Actual

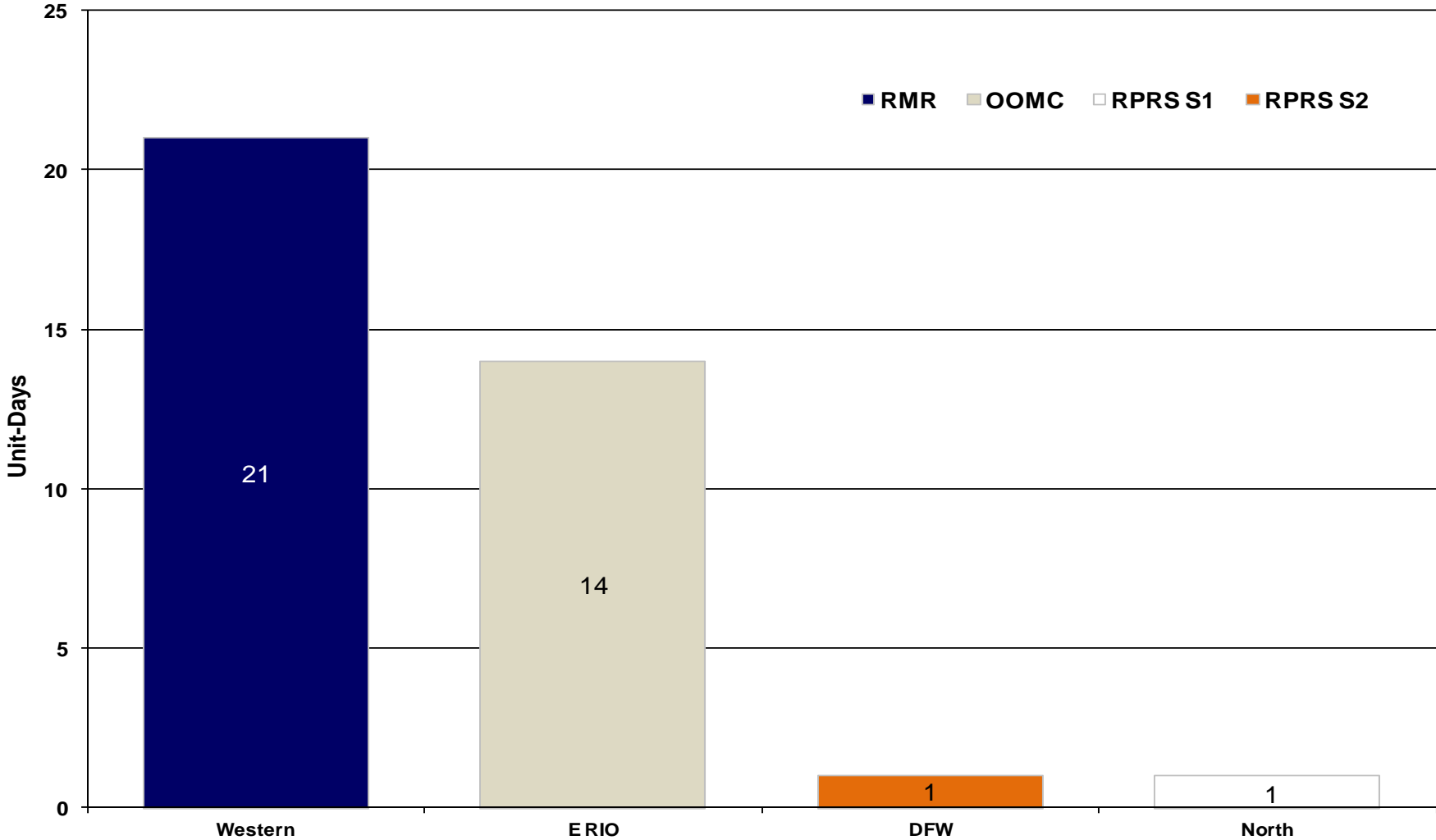




# Day-Ahead Load Forecast Performance in October 2010

	<b>Mean Absolute Percent Error (MAPE) for ERCOT Mid-Term Load Forecast (MTLF) Run at 16:00 Day Ahead</b>				
	<b>2007 MAPE</b>	<b>2008 MAPE</b>	<b>2009 MAPE</b>	<b>2010 MAPE (YTD)</b>	<b>October 2010 MAPE</b>
<b>Average Annual MAPE</b>	3.55	3.30	3.11	2.79	2.37

# Capacity Purchases of RMR, OOMC & RPRS to Manage Local Congestion in October 2010



# Zonal Congestion

<b>CSC</b>	<b>Oct 09 Days</b>	<b>Aug 10 Days</b>	<b>Sep 10 Days</b>	<b>Oct 10 Days</b>	<b>Last 12 Months Total Days (Oct 09 – Oct 10)</b>
<b>North – Houston</b>	7	4	8	<b>13</b> Oct-(5-13, 15, 23, 24, 26)	63
<b>North – West</b>	0	0	0	<b>0</b>	0
<b>West – North</b>	7	14	15	<b>19</b> Oct-(4-6, 9, 10, 15-18, 21-27, 29-31)	181
<b>South – North</b>	0	2	0	<b>0</b>	5
<b>North - South</b>	0	0	0	<b>0</b>	5

# Advisories and Watches in October 2010

---

- **Advisories issued for Adjusted Responsive Reserve (ARR) below 3000 MW.**
  - Issued 6 Days.
- **Watches issued for Adjusted Responsive Reserve (ARR) below 2500 MW.**
  - None
- **Transmission Watches**
  - None
- **Energy Emergency Alerts**
  - None

## Other Items

---

- **October 2<sup>nd</sup>**
  - Held Real-Time Energy Balancing deployments for interval ending 00:15 and 00:30 due to incorrect offset value entered. Resumed with interval ending 00:45 deployments.
- **October 3<sup>rd</sup>**
  - Held Real-Time Energy Balancing deployments for interval ending 00:15 due to incorrect offset value entered. Resumed with interval ending 00:30 deployments.
- **October 27<sup>th</sup>**
  - Held Real-Time Energy Balancing deployments for interval ending 08:45 due to server issues. Resumed with interval ending 09:30 deployments.

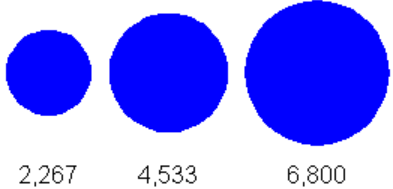
# Planning Summary

---

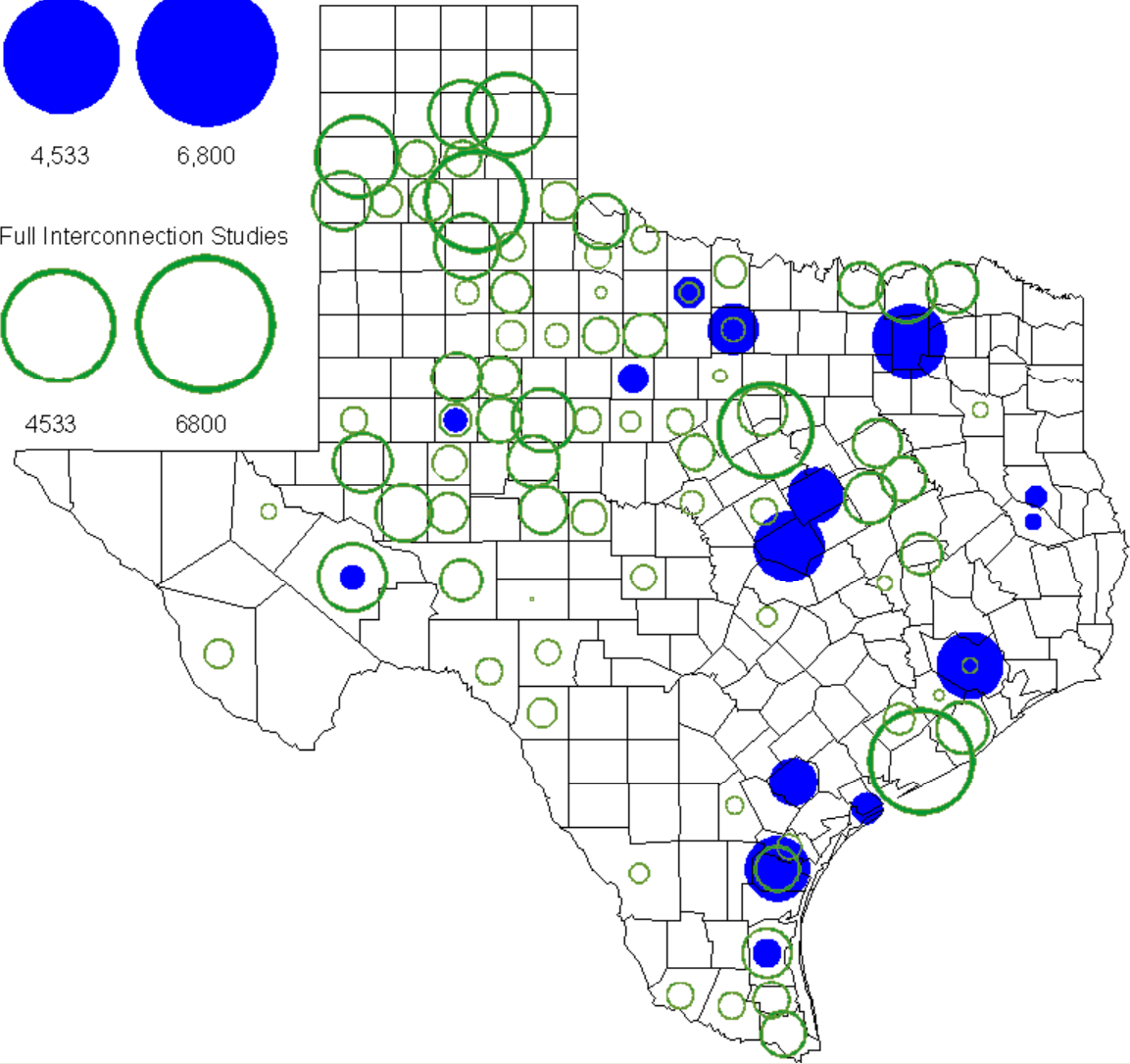
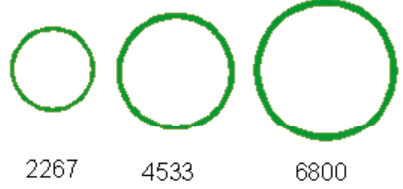
- **ERCOT is currently tracking 194 active generation interconnection requests totaling over 65,000 MW. This includes almost 39,000 MW of wind generation.**
- **ERCOT is currently reviewing proposed transmission improvements with a total cost of \$131.9 Million**
- **Transmission Projects endorsed in 2010 total \$230.4 Million**
- **All projects (in engineering, routing, licensing and construction) total approximately \$9.4 Billion**
- **Transmission Projects energized in 2010 total about \$791.7 million**

# County Location of Planned Generation with Interconnection Requests (all fuels) October 2010

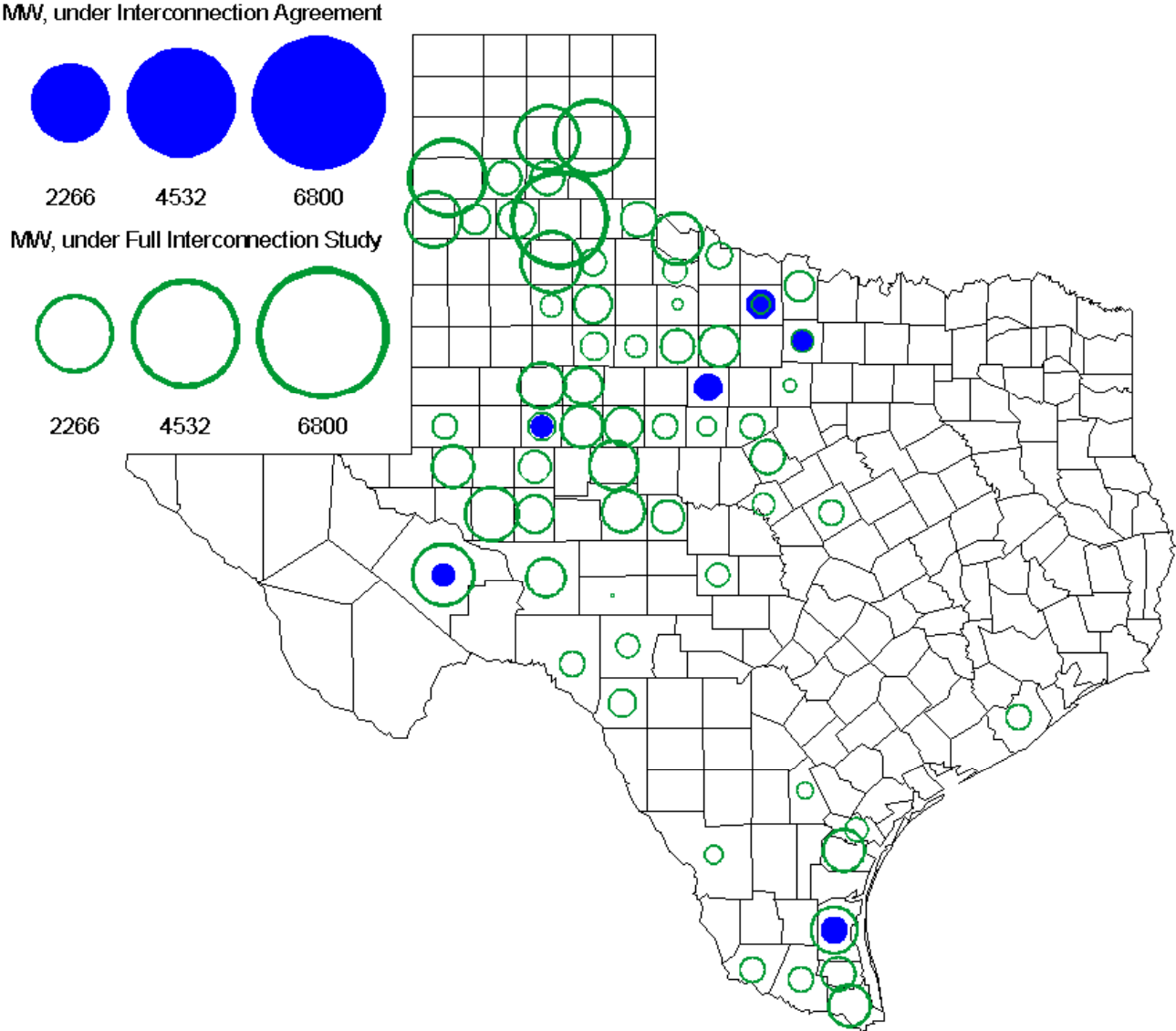
MW under Interconnection Agreements



MW under Full Interconnection Studies

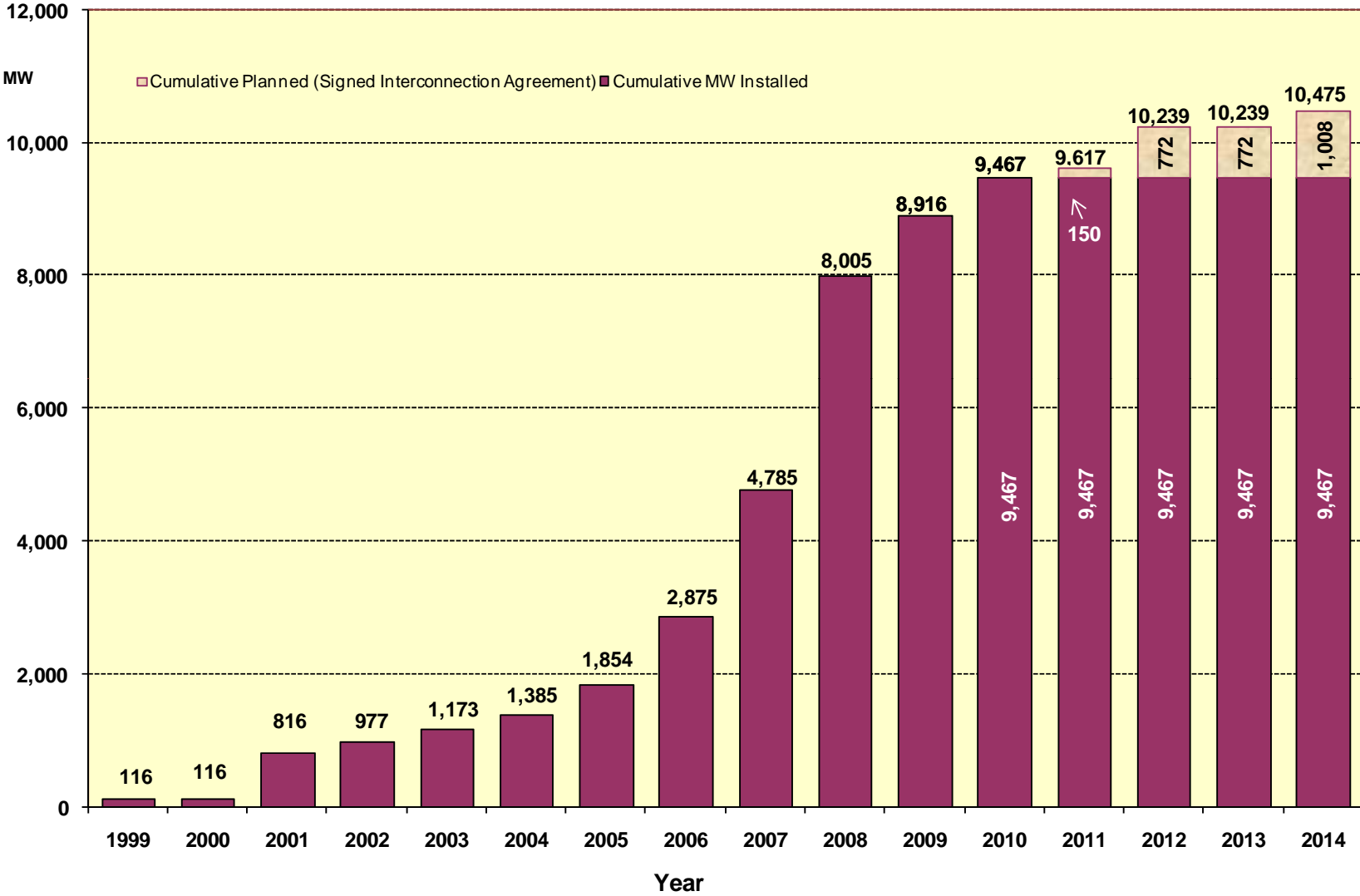


# County Location of Planned Generation with Interconnection Requests (Wind) October 2010





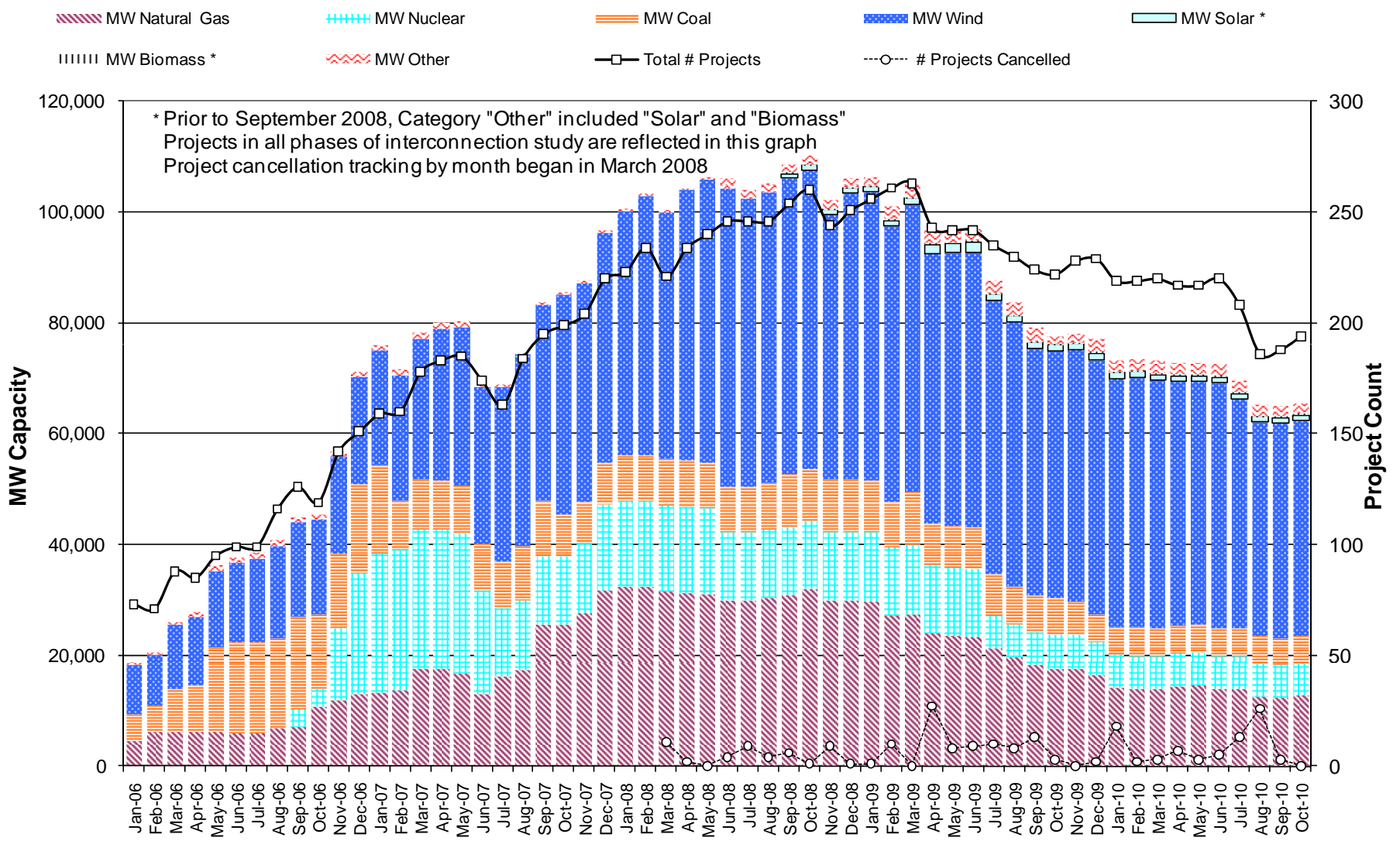
# Wind Generation



as of October 31, 2010



# Generation Interconnection Activity by Fuel



# Generation Interconnection Activity by Project Phase

