



Grid Operations and Planning Report

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**ERCOT Board of Directors
June 15, 2010**

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Summary

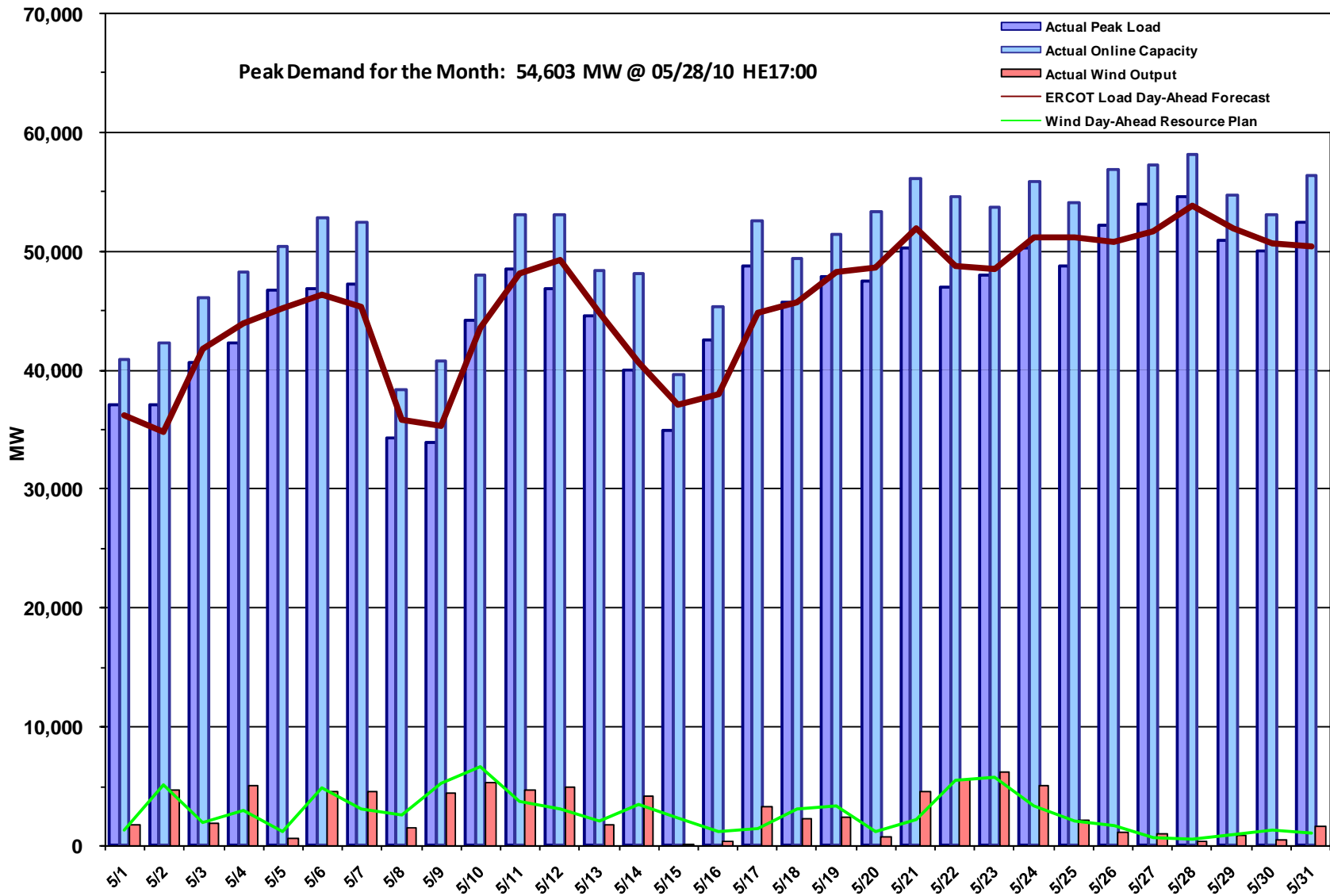
- **May 2010 Operations**

- The peak demand of 54,603 MW on May 28th was more than the long term forecast peak of 53,841 MW and more than the May 2009 actual peak demand of 51,321 MW
- Day-ahead load forecast error for April was 2.63%.
- Advisories for Adjusted Responsive Reserve (ARR) below 3000 MW issued 3 days
- A Watch for ARR under 2500 MW issued one day
- An Energy Emergency Alert Level 1 event of 30 minutes duration occurred on May 15
- Transmission Watches issued 31 days(Gails & Gonzales substation block load transfers)

- **217 active generation interconnect requests totaling over 72,000 MW as of May 31, 2010. No change from April 30.**

- **9,117 MW wind capacity on line May 31, 2010. No change from April 30.**

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

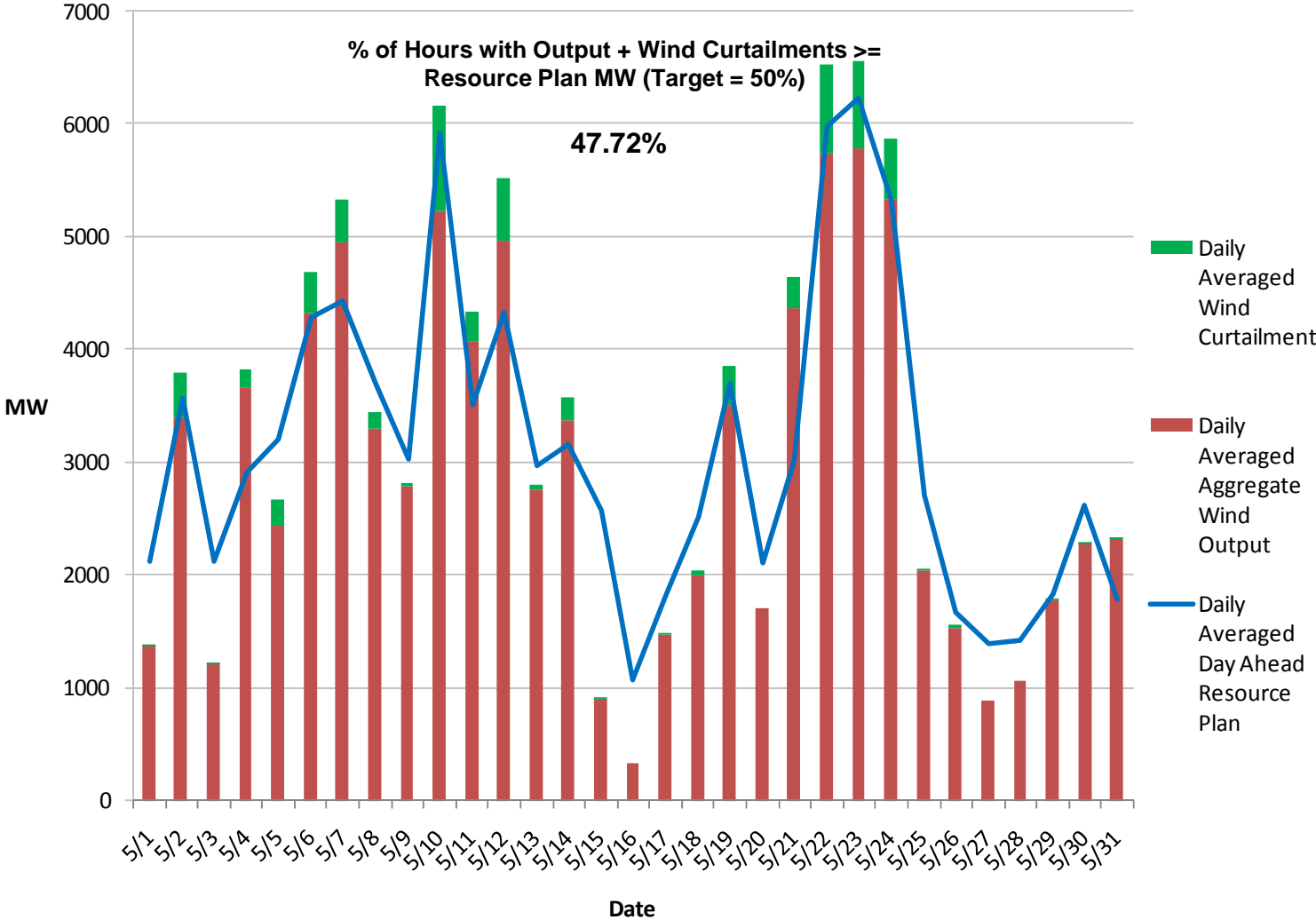


Note: All data are hourly averages during the peak load hour obtained from Resource Plans, and EMMS.



15 June 2010

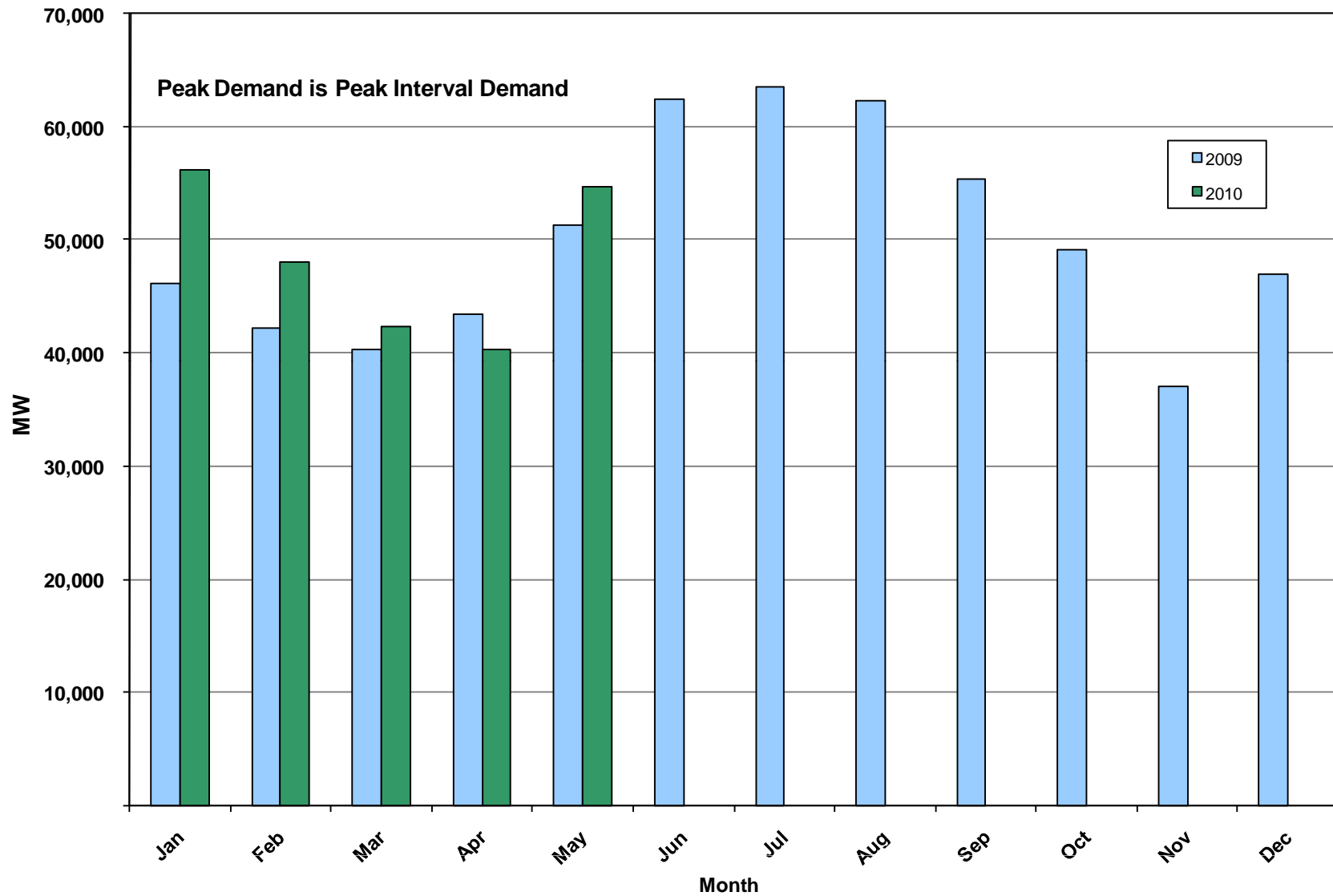
May 2010: Actual Wind Output w/ Curtailment Added Back vs. Wind Day-Ahead Resource Plan Based on AWS Forecast for All Hours



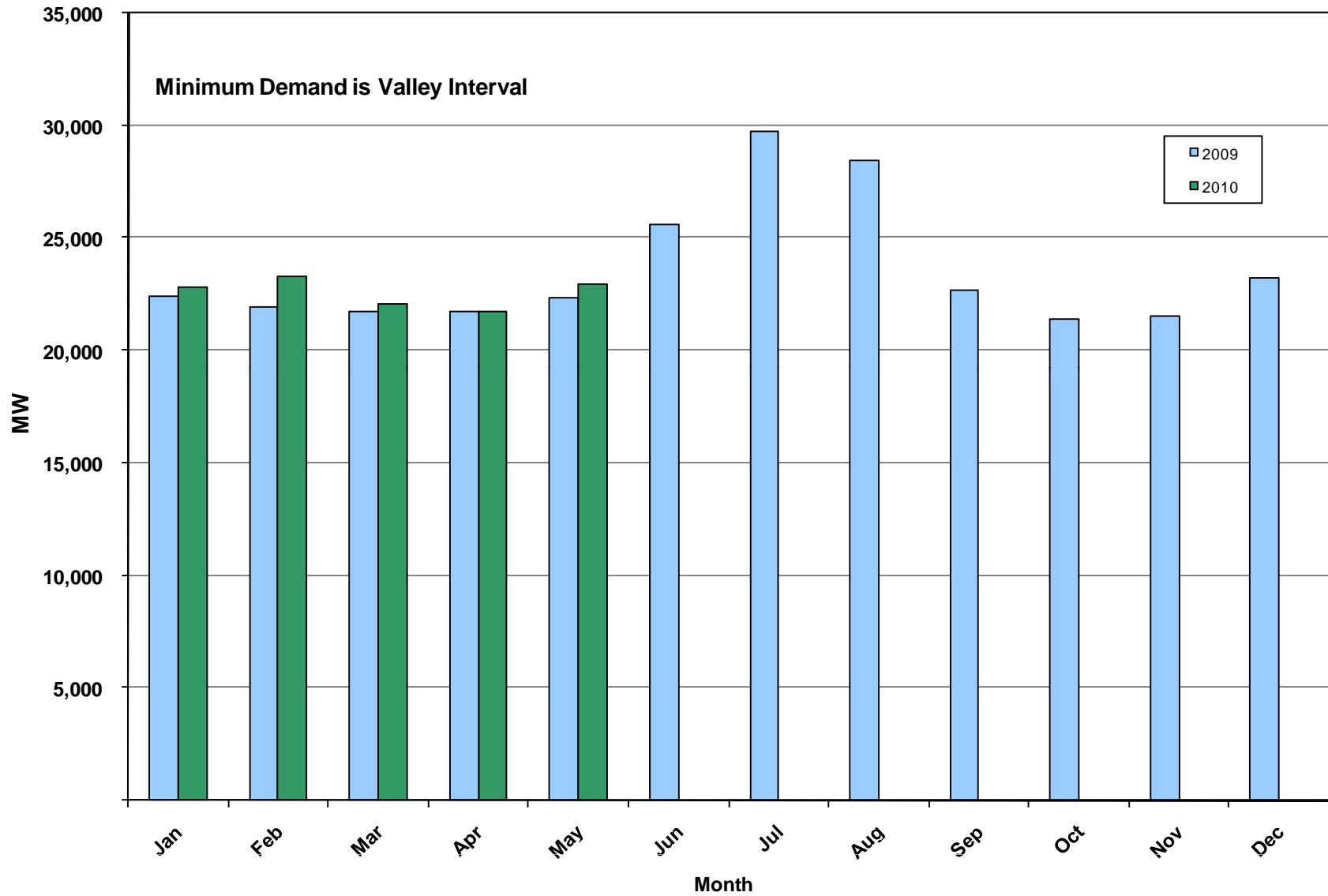
Note: QSEs must use AWST 50% probability of exceedence forecast for Day-Ahead Resource Plans

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May 2010: Monthly Peak Demand: Actual



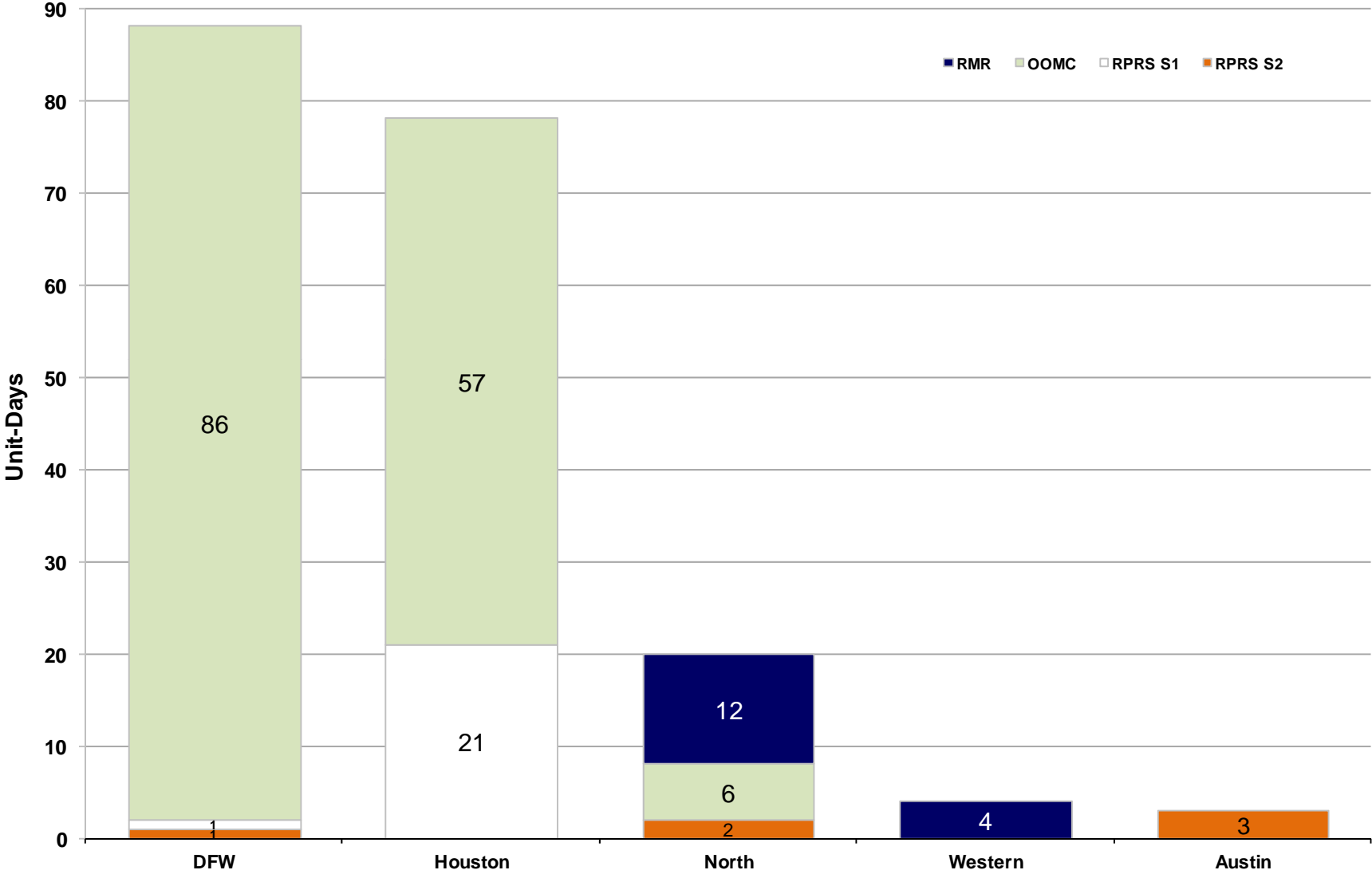
May 2010: Monthly Minimum Demand: Actual



Day-Ahead Load Forecast Performance in May 2010

	Mean Absolute Percent Error (MAPE) for ERCOT Mid-Term Load Forecast (MTLF) Run at 16:00 Day Ahead				
	2007 MAPE	2008 MAPE	2009 MAPE	2010 MAPE (YTD)	May 2010 MAPE
Average Annual MAPE	3.55	3.30	3.11	2.98	2.63

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



Zonal Congestion

CSC	May 09 Days	Mar 10 Days	Apr 10 Days	May 10 Days	Last 12 Months Total Days (May 09 – May 10)
North – Houston	2	0	2	10 May-2, 7-10, 14, 21-24	49
North – West	0	0	0	0	0
West – North	16	24	17	19 May-2, 4-14, 17-19, 21-24	158
South – North	0	0	0	0	4
North - South	4	0	1	0	28

Significant System Incidents in May 2010

- **May 14th**
 - A QSE lost network connectivity for approximately 1 hour 25 minutes, the cause was a mis-configuration in Domain Name Services during an internal QSE disaster recovery exercise.
- **May 15th**
 - Loss of two units at a plant for a total of 1560 MW of generation. ERCOT declared Level 1 of its Energy Emergency Alert due to Adjusted Responsive Reserve dropping below 2300 MW after Loads acting as Resources (LaaRs) were automatically deployed due to underfrequency.
- **May 19th**
 - Market Emergency Notice issued for Replacement Reserve Service market delay of 2^{1/2} hours due to database issues.

Advisories and Watches in May 2010

- **Advisories issued for Adjusted Responsive Reserve (ARR) below 3000 MW.**
 - Issued 3 Days.
- **Watches issued for Adjusted Responsive Reserve (ARR) below 2500 MW.**
 - Issued 1 Day.
- **Transmission Watches**
 - May 1st - 31st ERCOT issued a Transmission Watch due to a transformer forced outage at Gails substation. Implemented Block Load Transfer up to 2 MW from ERCOT (Gails substation) to SPP (Draw substation).
 - May 29th ERCOT issued a Transmission Watch due to a forced outage at Cienega RGEC substation. Implemented Block Load Transfer up to 3 MW from ERCOT (Gonzales substation) to CFE
- **One EEA in May 2010**
 - May 15th ERCOT declared Level 1 of its Energy Emergency Alert (EEA) due to Adjusted Responsive Reserve dropping below 2300 MW after LaaRs were deployed due to underfrequency after two unit trips (see previous slide) . The EEA was ended after 30 minutes.

Other Items

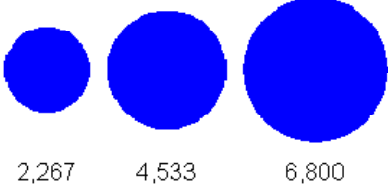
- **May 8th**
 - Held Real-Time Balancing Market for interval ending 22:45 due to incorrect offset value entered. Resumed with interval ending 23:15 deployments.

Planning Summary

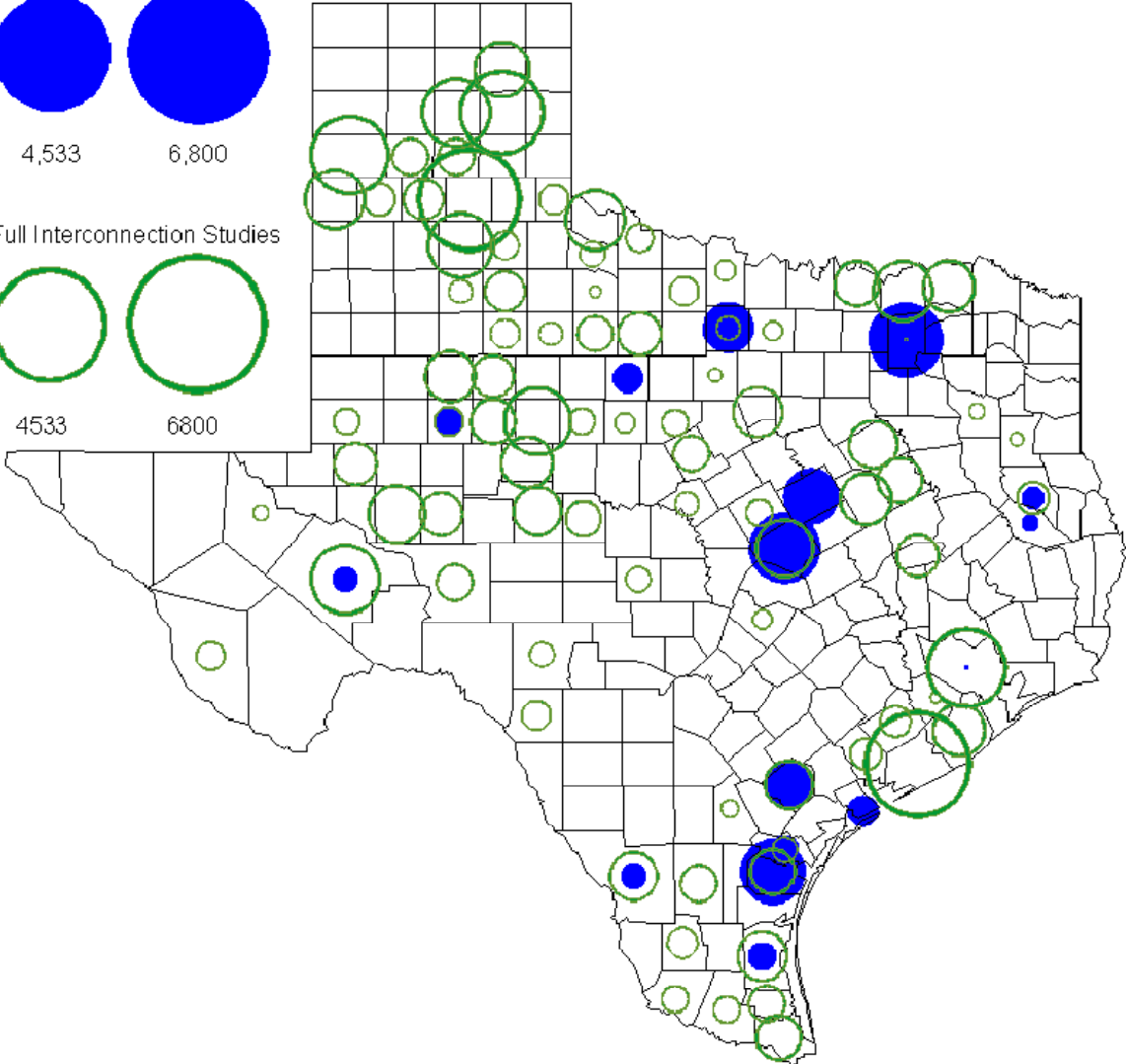
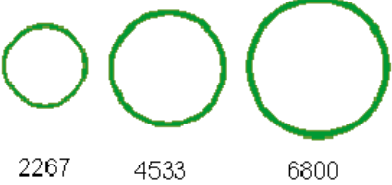
- **ERCOT is currently tracking 217 active generation interconnection requests totaling over 72,000 MW. This includes over 43,000 MW of wind generation.**
- **Regional Planning is currently reviewing proposed transmission improvements with a total of \$712.5 Million.**
- **Transmission Projects approved in 2010 total \$2.9 Million.**
- **All projects (in engineering, routing, licensing and construction) total approximately \$9.6 Billion.**
- **Transmission Projects energized in 2010 total about \$41.3 Million**

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

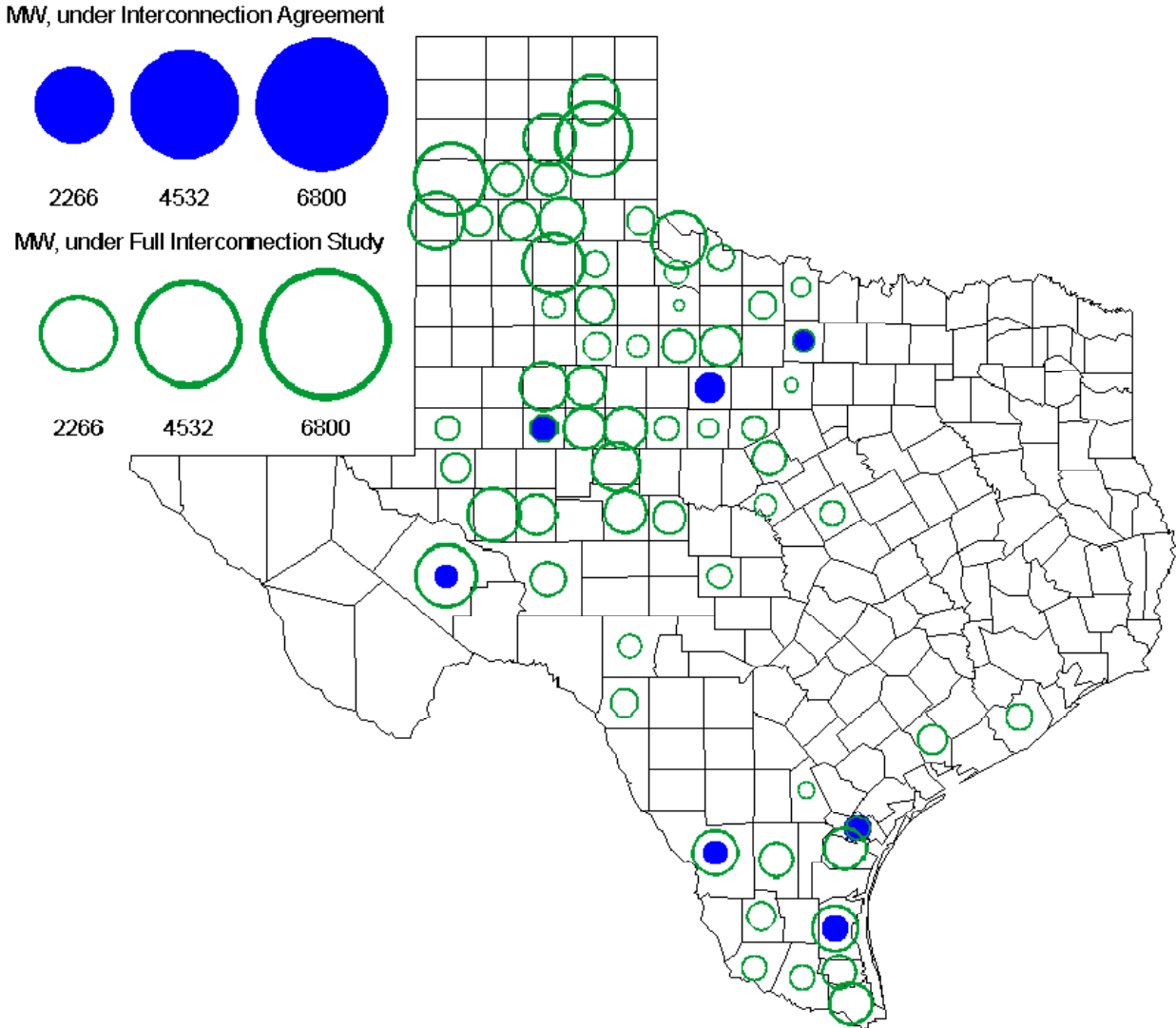
MW under Interconnection Agreements



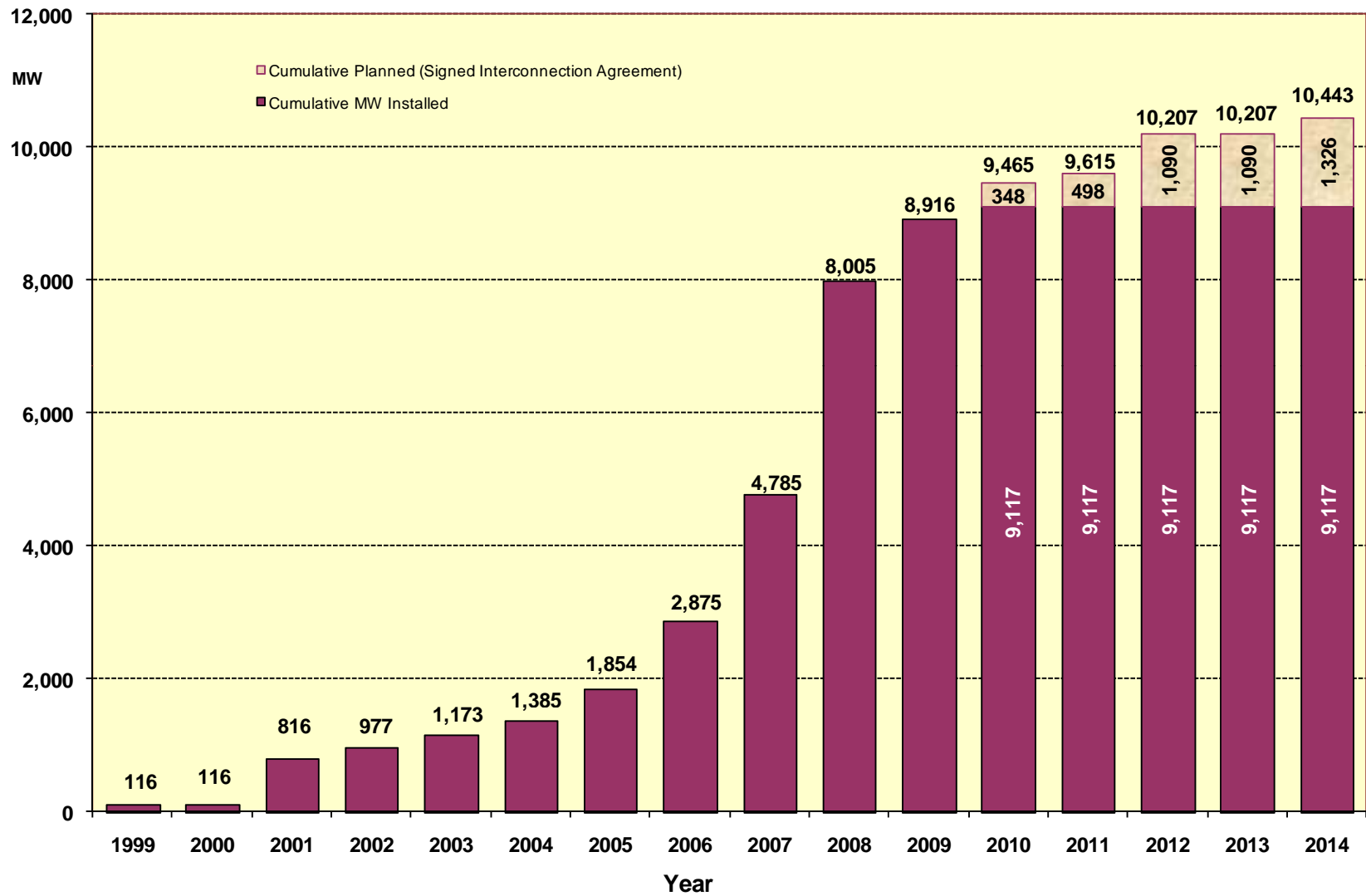
MW under Full Interconnection Studies



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



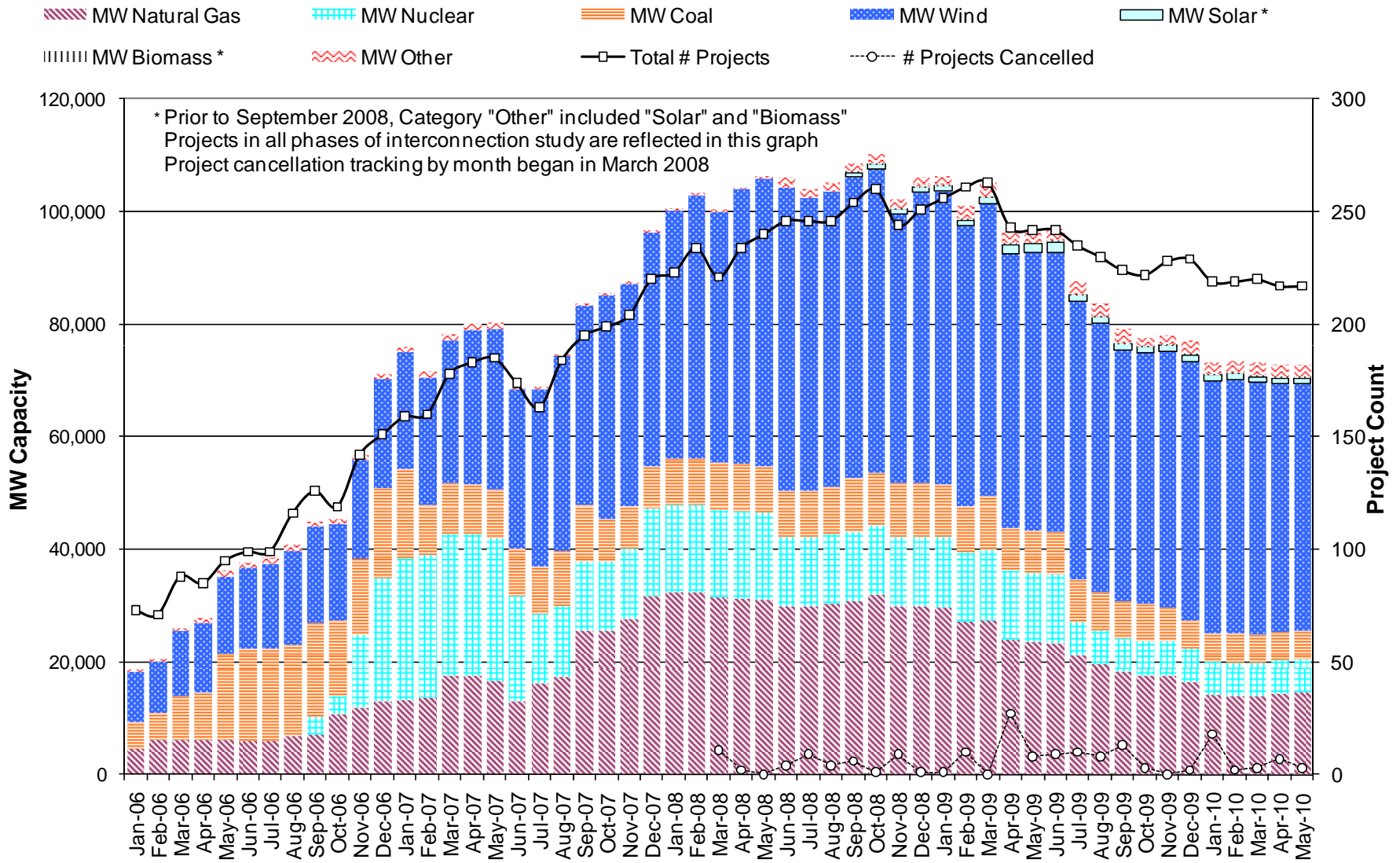
Wind Generation



as of May 31, 2010



Generation Interconnection Activity by Fuel



Generation Interconnection Activity by Project Phase

