



Grid Operations and Planning Report

ERCOT Board of Directors
June 16, 2009

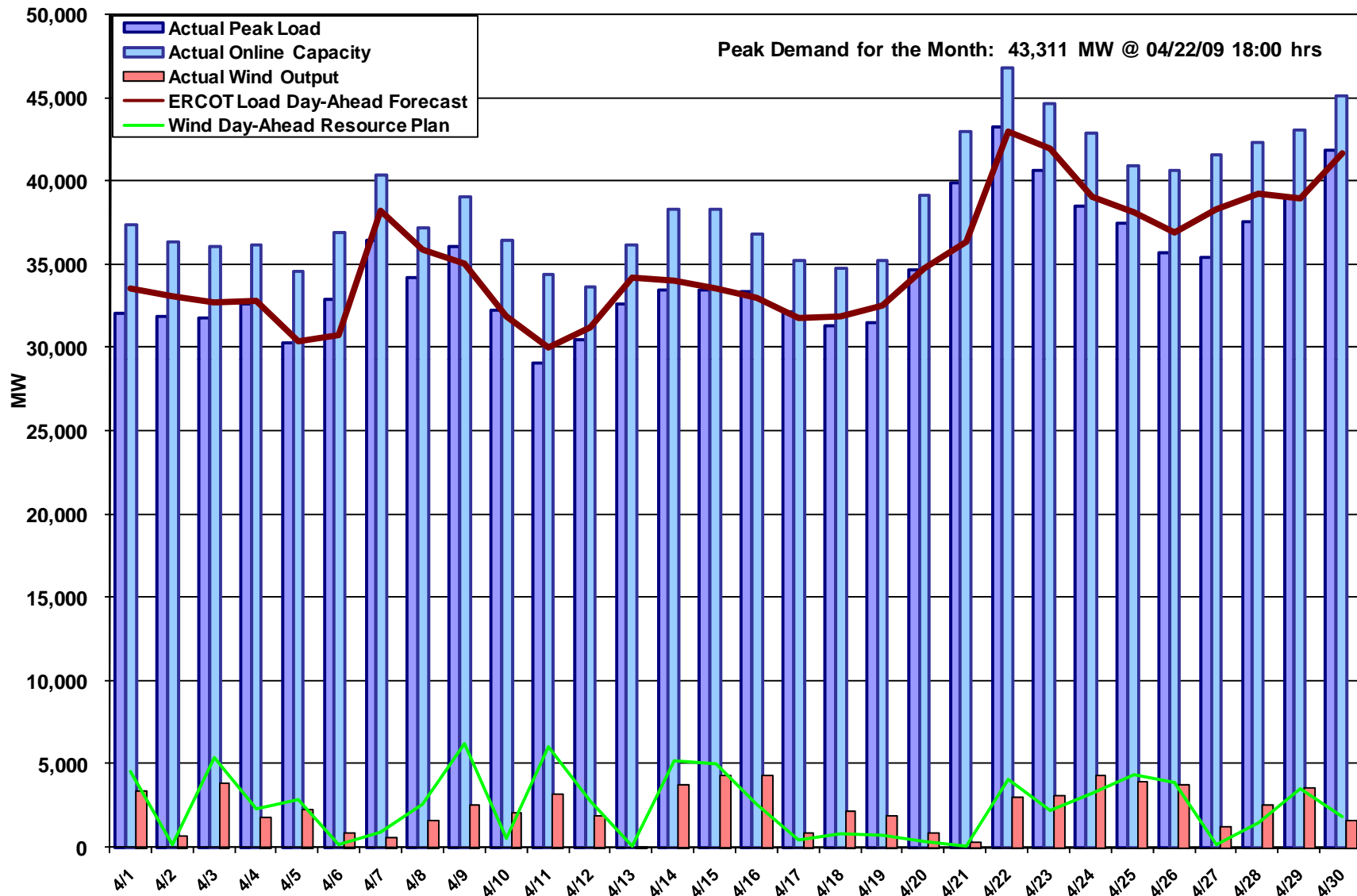
Kent Saathoff

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 - Summary
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- **April 2009 Operations**
 - The monthly peak demand of 43,311 MW on April 22nd was higher than both the most current long term demand forecast of 42,705 MW for the week of April 20th, and the day-ahead load forecast of 42,989 MW.
 - Day-ahead load forecast error for April was 2.66%.
 - Three Advisories for Adjusted Responsive Reserve (ARR) below 3000 MW. No Alerts for ARR under 2500 MW or EECF events.
 - Ten transmission alerts
- **242 active generation interconnect requests totaling over 97,000 MW as of May 31, 2009. No change from April.**
- **8,135 MW wind capacity on line May 31, 2009. No change from April.**

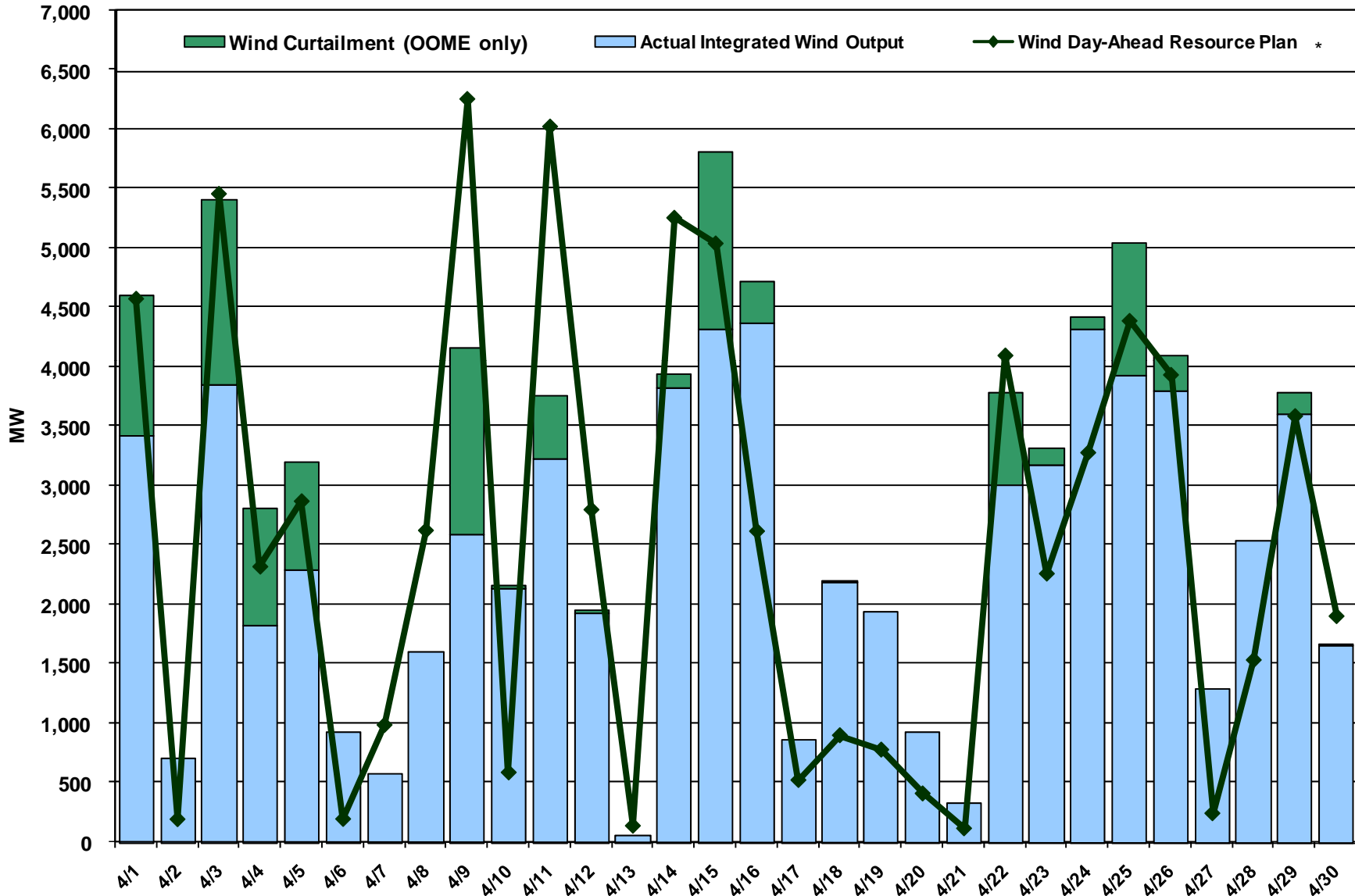
Daily Peak Demand: Hourly Average Actual vs Forecast, Resource Plan & On-line Capacity at Peak



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



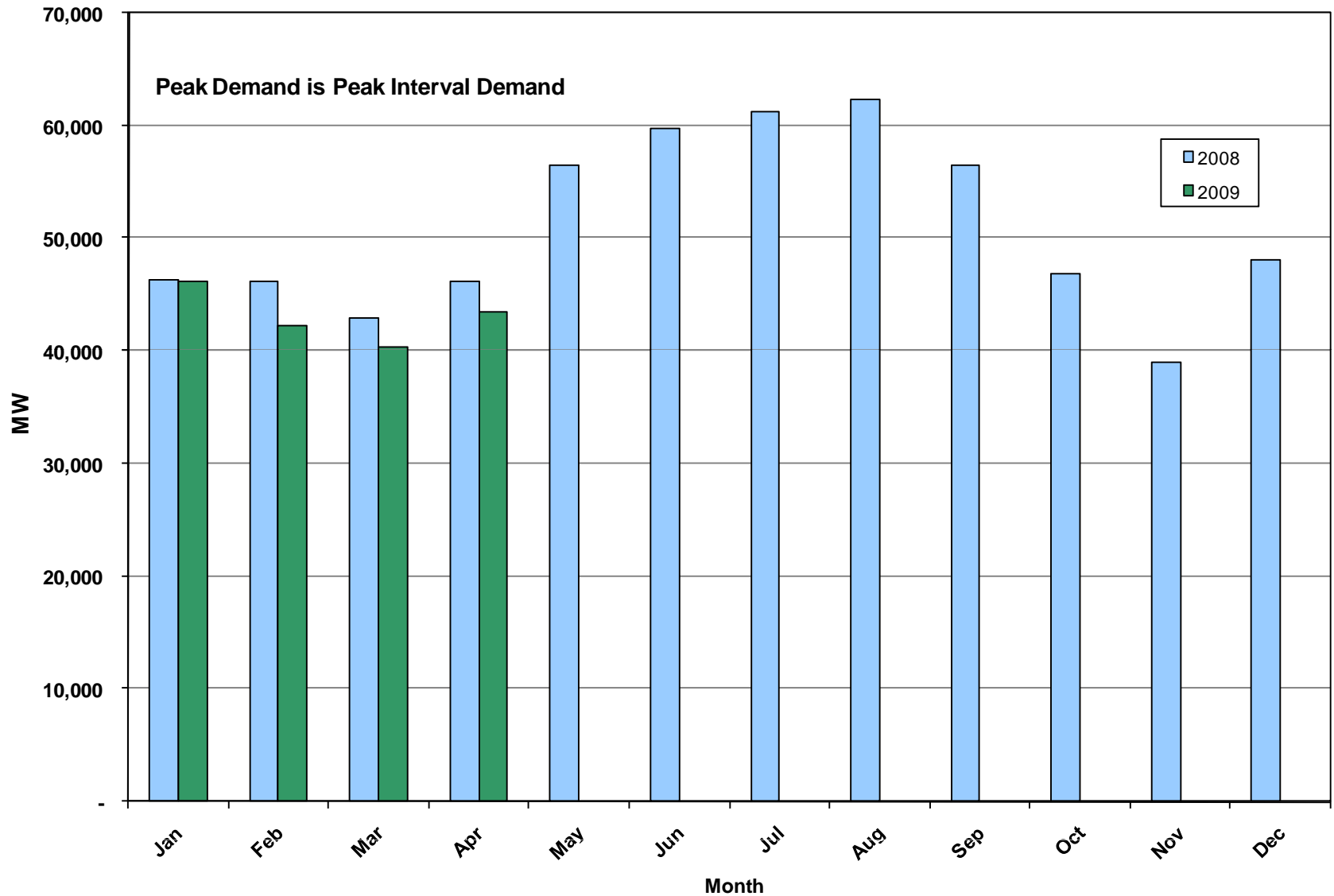
Actual Wind Output w/ Curtailment Added Back Vs Wind Day-Ahead Resource Plan Based on AWS Forecast at Peak Load Hour



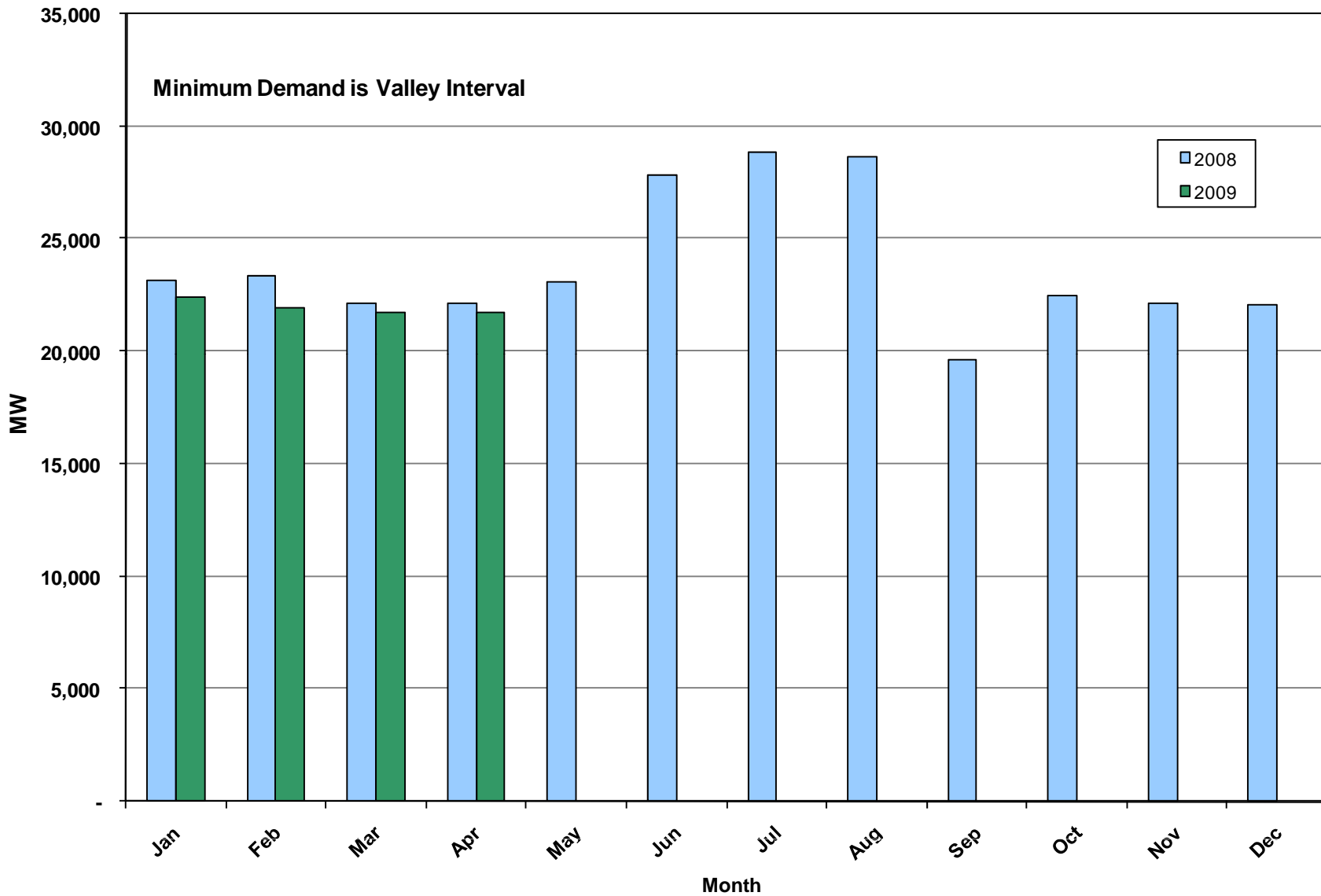
* Wind Day-Ahead Resource Plan values based on 80% probability of exceedance ERCOT forecast



Monthly Peak Demand: Actual



Monthly Minimum Demand: Actual

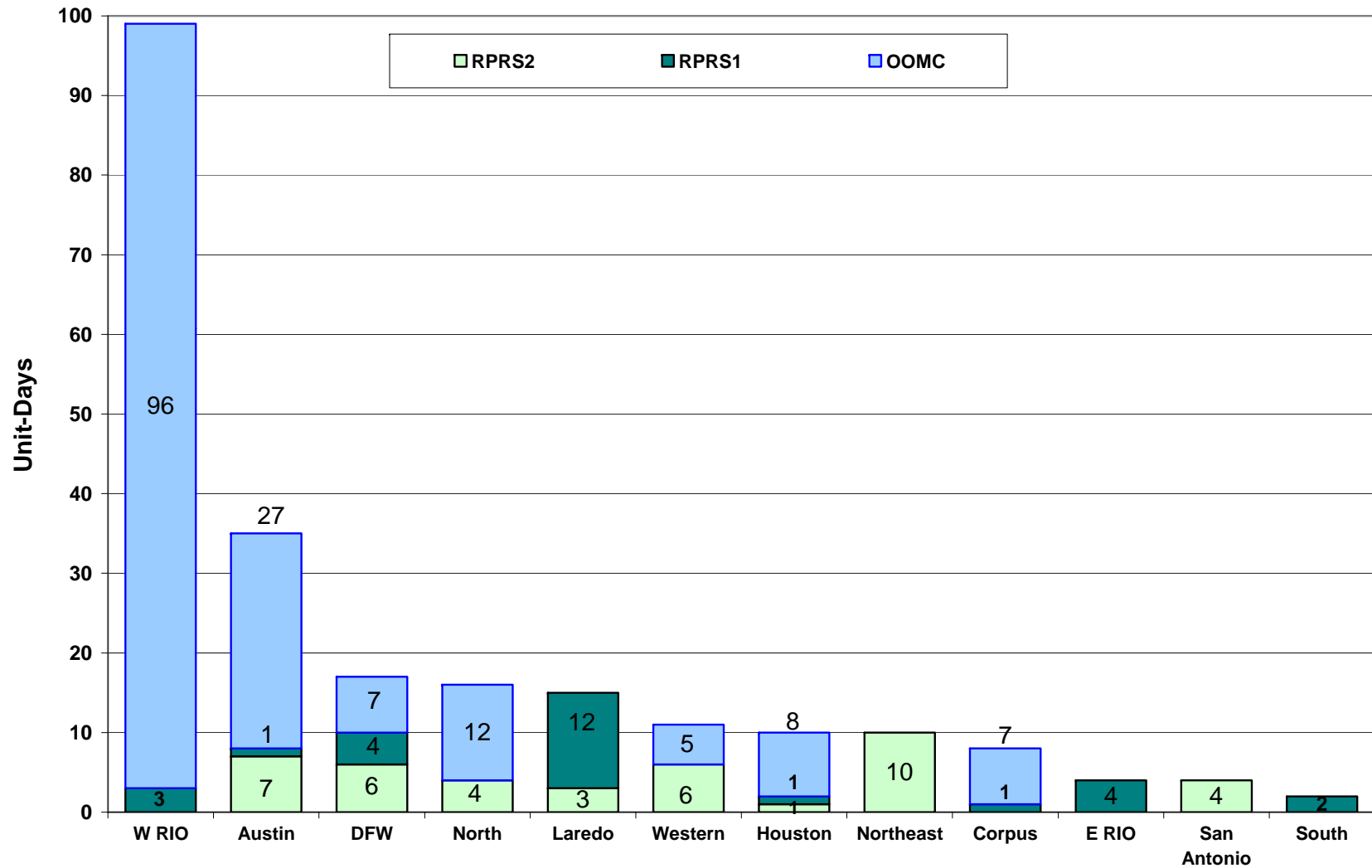


Day-Ahead Load Forecast Performance in April 2009

	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)	April 2009 MAPE
Average Annual MAPE	3.79	3.55	3.30	3.38	2.66

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

Relative Activity Capacity Purchases for OOMC & RPRS



Zonal Congestion

CSC	April 08 Days	Feb 09 Days	Mar 09 Days	April 09 Days	Last 12 Months Total Days (Apr 08 – Apr 09)
North – Houston	15	0	9	6 April – 2, 4, 5, 13-15	71
North – West	4	1	2	0	12
West – North	26	14	13	20 April – 5, 7-14, 16 18, 19, 22, 24-30	189
South – North	11	0	3	2 April – 6, 7	26
North - South	16	0	7	4 April – 18, 19, 28, 29	98

Significant System Incidents in April 2009

- **April 05th at 07:09**
 - Morgan Creek-Longshore 345 kV line tripped due to a phase to ground fault associated with a turkey vulture roost. This resulted in a loss of two generating units due to relay setting issues.
- **April 09th at 23:03**
 - One 138 kV bus tripped at Permian Basin due to breaker failure and seven 138 kV lines open-ended.
- **April 17th at 15:01**
 - Unit trip along with associated transmission equipment due to static wire down caused by thunderstorms.
 -
- **April 20th at 05:06**
 - Simultaneous loss of two 345/138 kV transformers and eight 138 kV lines. Instrument transformer failure caused the buses and lines to trip at Centerville Road Switch.

Advisories and Alerts in April 2009

- **Advisories issued for Adjusted Responsive Reserve (ARR) below 3000 MW.**
 - Issued 3 Days.
- **No Alerts issued for ARR below 2500 MW in April 2009.**
- **Transmission Alerts (operation beyond n-1 criteria):**
 - 04/09 Multiple forced transmission outages in West Texas caused by wild fires.
 - 04/09 Post contingency overload of Odessa North 138/69KV autotransformer due to generating unit trip.
 - 04/13 Loss of Lon Hill - North Edinburg 345KV overloads Lon Hill - Nelson Sharpe 345KV.
 - 04/30 Loss of Munday East - Paducah Claire St. 138KV overloads Benjamin - Munday 69KV.
 - 04/13,15,24,25,26,27 Emergency Notices issued for the Laredo Area. Initiated Emergency Schedules from Comision Federal de Electricidad to ERCOT utilizing the Laredo Variable Frequency Transformer.
- **No EECs in April 2009**

Other Items

- **April 15th**
 - ERCOT held Real-time Balancing Market Interval Ending (IE) 14:45 for IE 15:00 due to incorrect offset, resumed with IE 15:15.
 - ERCOT held Real-time Balancing Market IE 18:30 for IE 18:45 due to late deployments, resumed with IE 19:00.

Planning Summary

- **ERCOT is currently tracking 242 active generation interconnection requests totaling almost 97,000 MW. This includes over 39,000 MW of wind generation.**
- **Regional Planning is currently reviewing proposed transmission improvements with a total cost of \$948.3 Million**
- **Transmission Projects approved in 2009 total \$105 Million**
- **All projects (in engineering, routing, licensing and construction) totals approximately \$4.1 Billion**
- **Transmission Projects energized in 2008 total about \$453 Million**

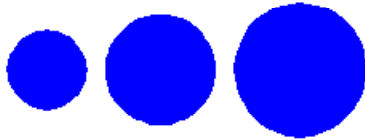
County Location of Installed Generation and Interconnection Requests (Wind) May 2009

Wind Projects MW under Full Studies

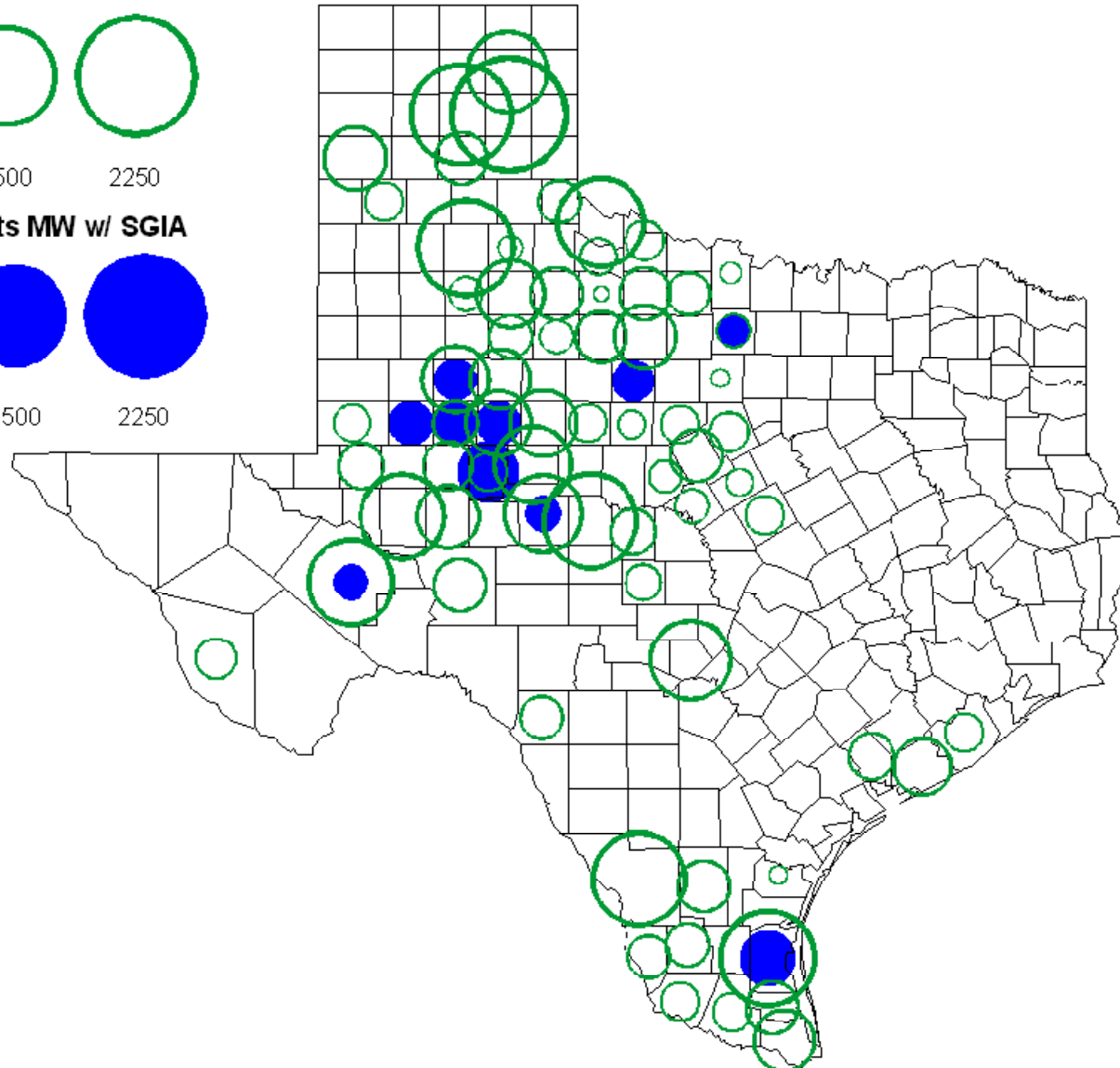


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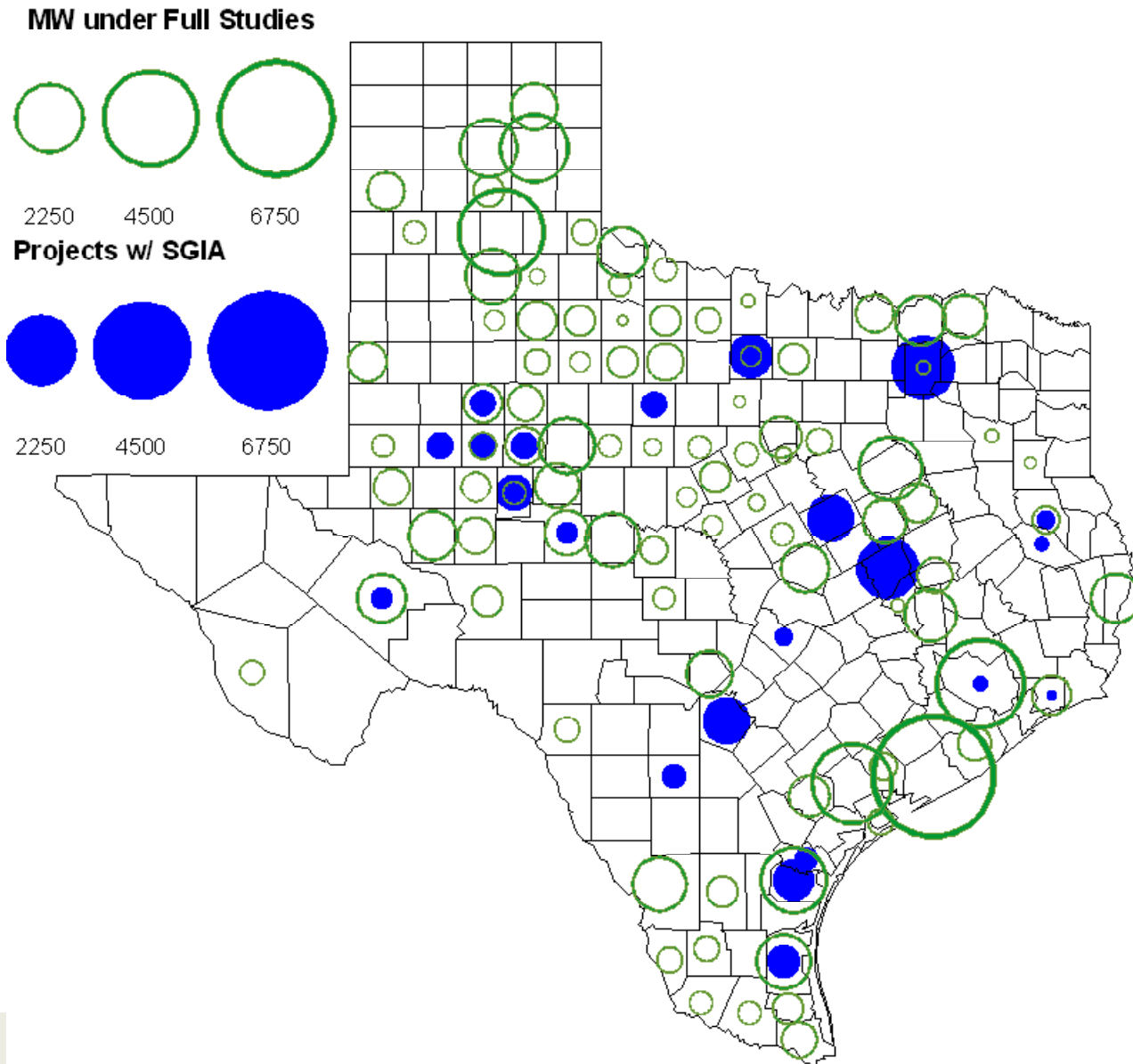
Wind Projects MW w/ SGIA



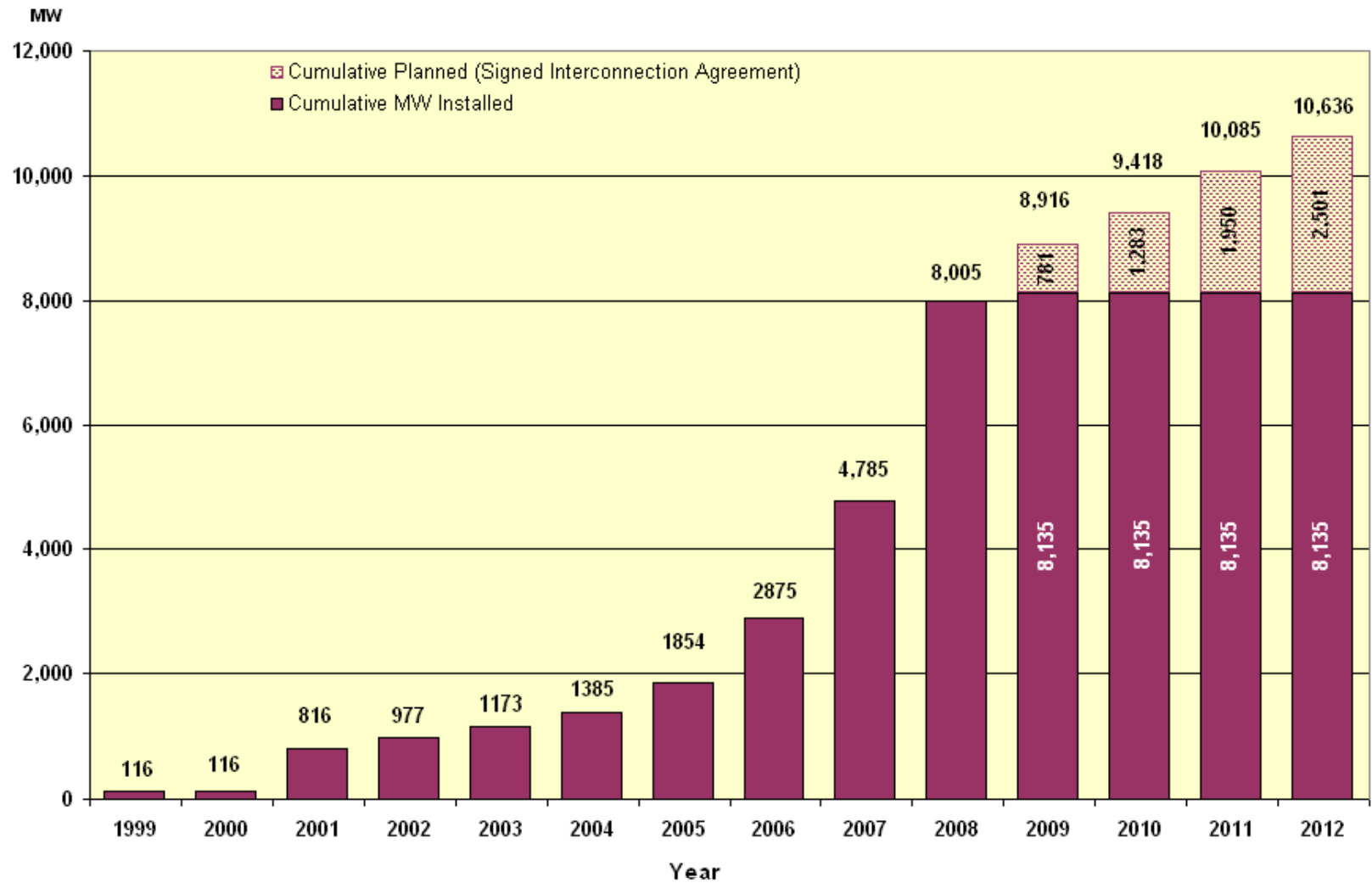
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County Location of Installed Generation and Interconnection Requests (all fuels) May 2009

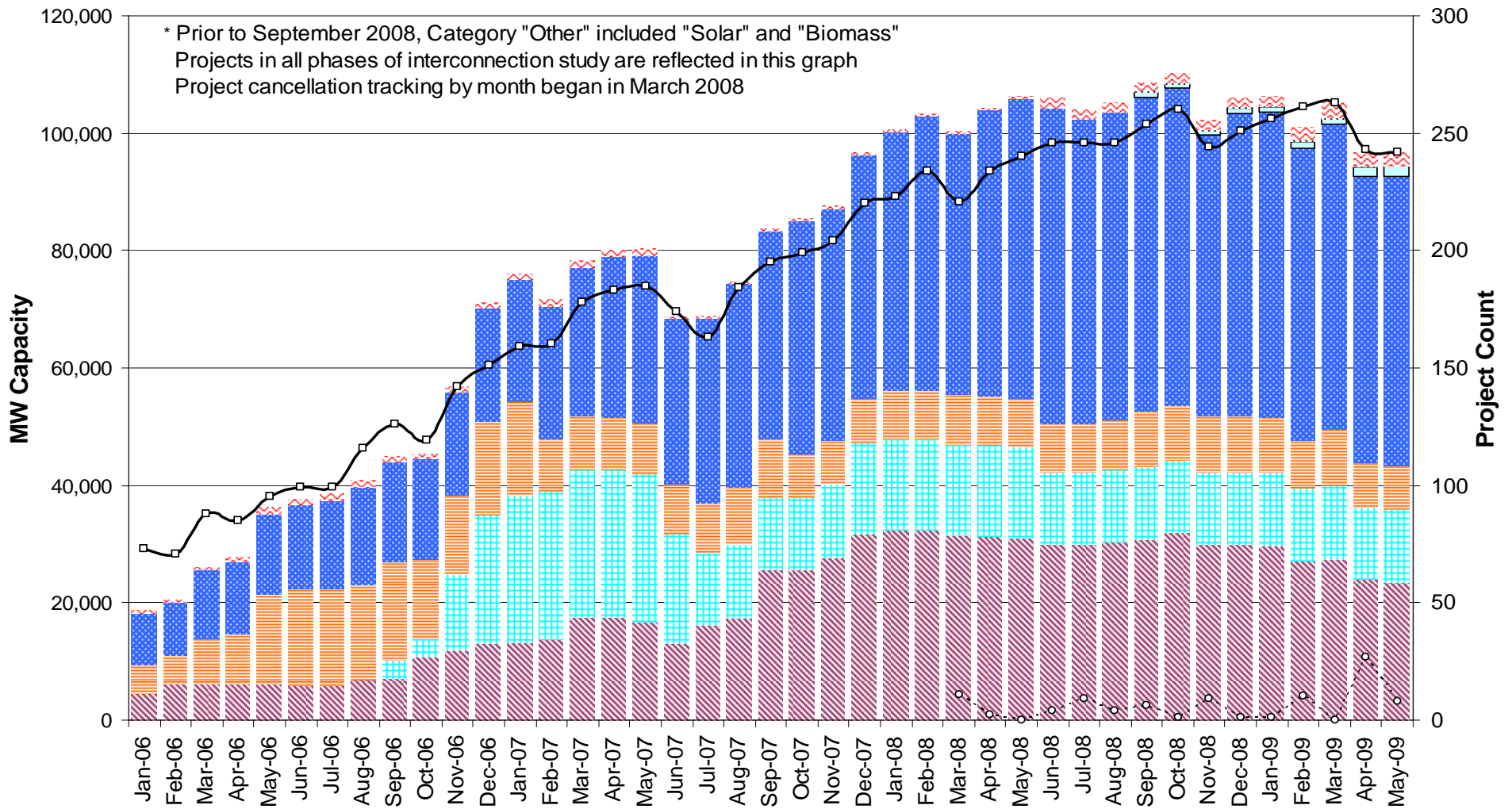
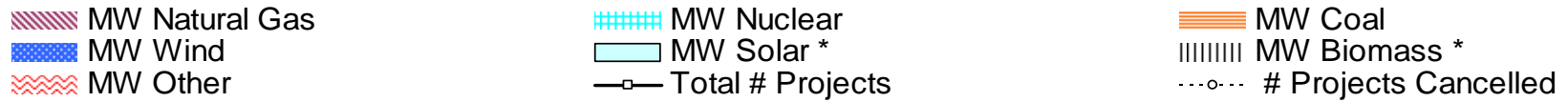


Wind Generation



(as of May 31, 2009)

Generation Interconnection Activity by Fuel



Generation Interconnection Activity by Project Phase

