



# May 2008 Grid Operations

ERCOT Board of Directors

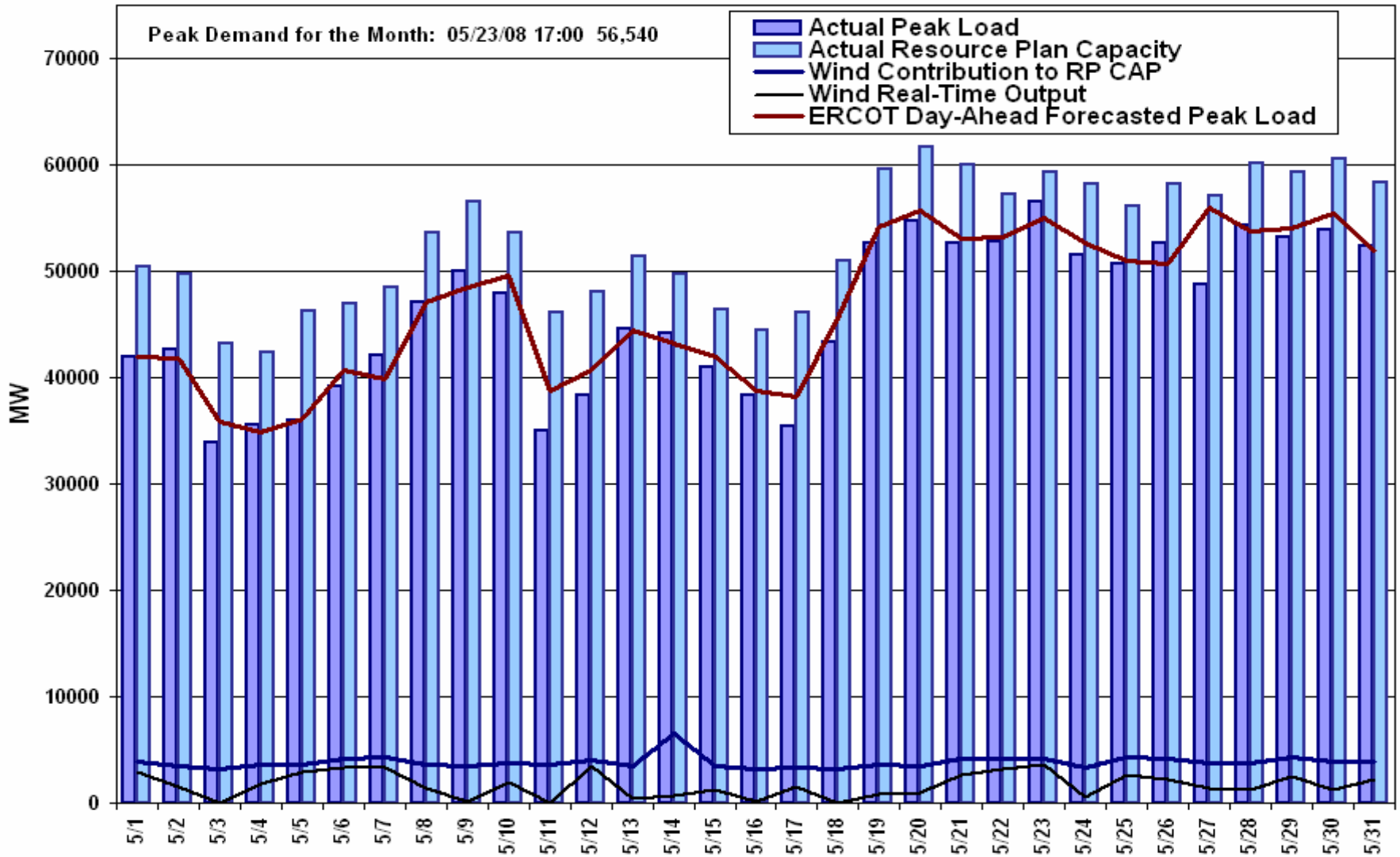
15 July 2008

**Kent Saathoff**

- **Peak Demand: Actual vs. Forecast**  
**On-line Resources: Total at Peak and Wind**
- **Day-Ahead Load Forecast Performance**
- **Out of Merit Capacity Order (OOMC) &  
Reliability Must Run (RMR) Purchases**
- **Zonal Congestion**
- **Significant System Incidents**
- **Advisories, Alerts and EECPs**
- **Other Items**
- **June 18<sup>th</sup> EECP Step One**

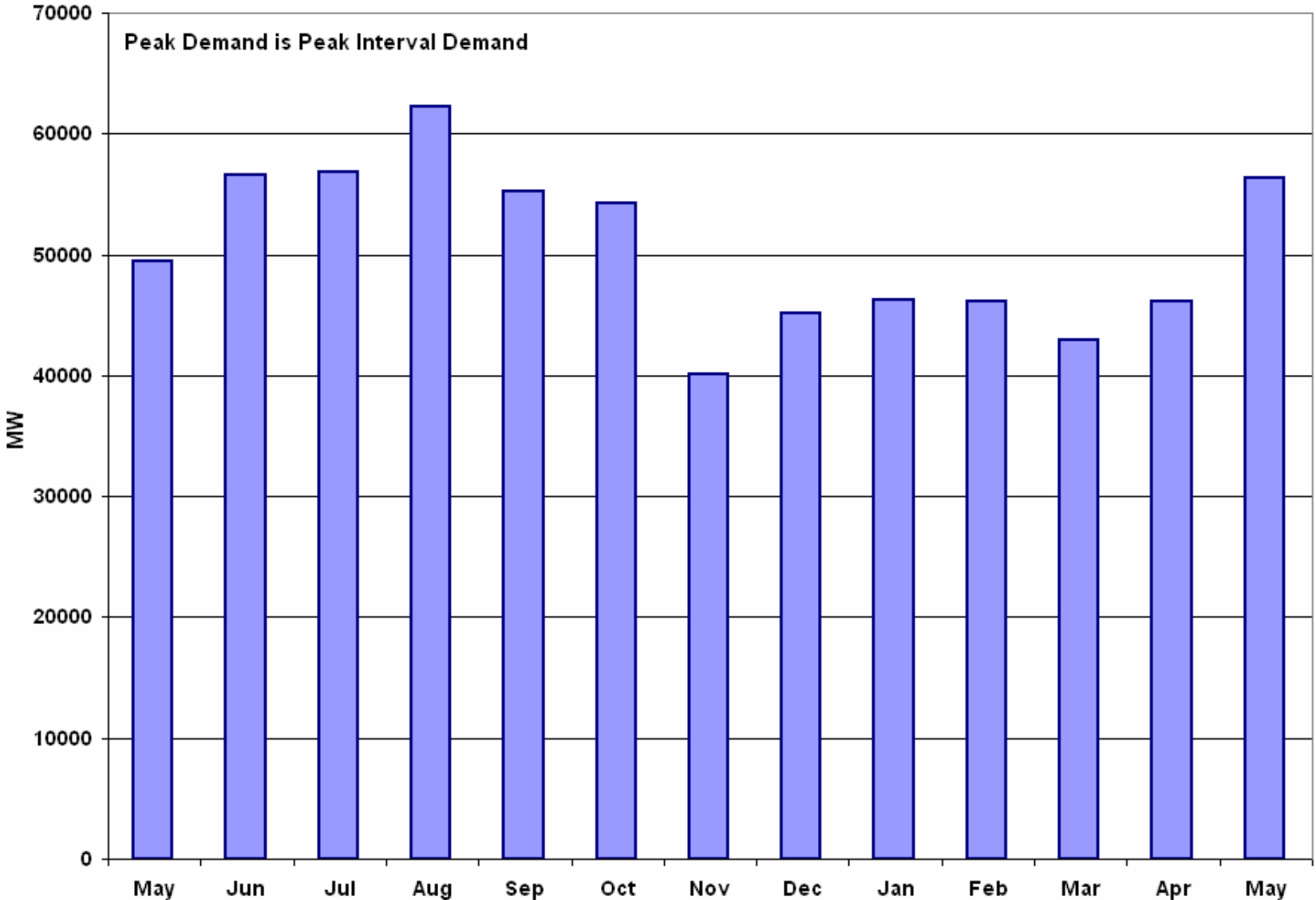
# Daily Peak Demand: Hourly Average Actual vs Forecast

## Resource Plan: On-line Capacity at Peak



Note: Preliminary data obtained from EMS hourly averages.

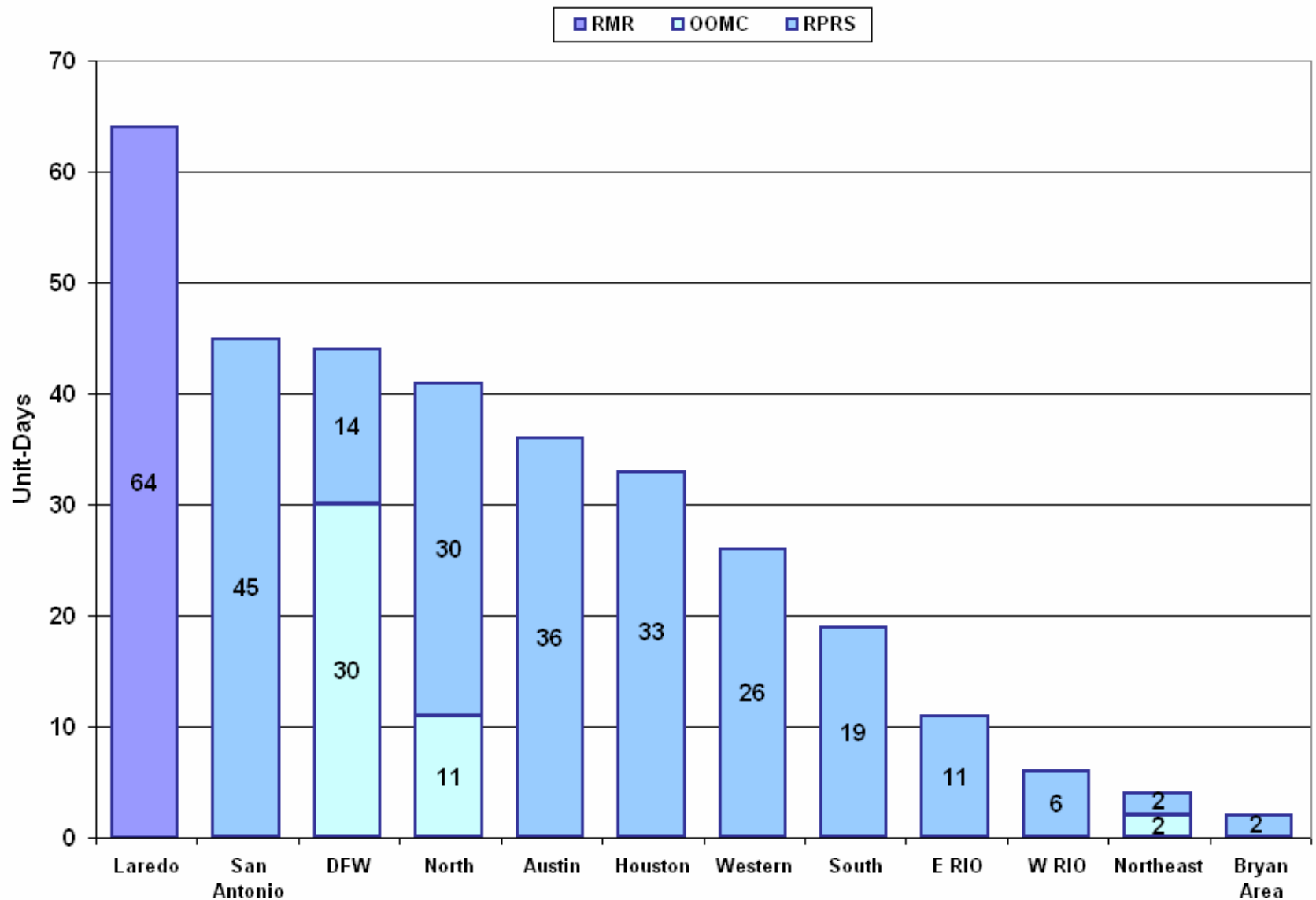
# Monthly Peak Demand: Actual



# Day-Ahead Load Forecast Performance in May 2008

|                                    | <b>Mean Absolute Percent Error (MAPE) for ERCOT Mid-Term Load Forecast (MTLF)<br/>Run at 16:00 Day Ahead</b> |                      |                      |                            |                          |
|------------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------|----------------------|----------------------------|--------------------------|
|                                    | <b>2005<br/>MAPE</b>                                                                                         | <b>2006<br/>MAPE</b> | <b>2007<br/>MAPE</b> | <b>2008<br/>MAPE (YTD)</b> | <b>May 2008<br/>MAPE</b> |
| <b>Average<br/>Annual<br/>MAPE</b> | 4.56                                                                                                         | 3.79                 | 3.55                 | 3.13                       | 3.01                     |

# Capacity Purchases of RMR, OOMC & RPRS to Manage Local Congestion in May 2008



# Zonal Congestion

| <b>CSC</b>             | <b>May 08<br/>Days</b>                                | <b>May 07<br/>Days</b> | <b>Last 12<br/>Months<br/>Total Days</b> |
|------------------------|-------------------------------------------------------|------------------------|------------------------------------------|
| <b>North – Houston</b> | <b>17</b><br>May – 1-5,7-9,14,15,19,20,24,27,28,30,31 | 13                     | 111                                      |
| <b>North – West</b>    | <b>1</b><br>May – 20                                  | 3                      | 61                                       |
| <b>West – North</b>    | <b>20</b><br>May – 1-3,5-7,11-14,21-26,28-31          | 2                      | 133                                      |
| <b>South – North</b>   | <b>8</b><br>May – 5,6,15-18,20,24                     | 2                      | 42                                       |
| <b>North - South</b>   | <b>28</b><br>May – 1-14,18-31                         | N/A                    | 69                                       |

# Significant System Incidents in May 2008

- **May 1<sup>st</sup>**
  - High Voltage event at Tonkawa 345 kV substation during switching.
- **May 9<sup>th</sup>**
  - Loss of Tradinghouse #2 345 kV bus and subsequent lines.
- **May 27<sup>th</sup>**
  - Loss of 345 kV line in West Texas tripping 301 MW of generation. Storms were active in the area.



- **Advisories issued for Adjusted Responsive Reserve (ARR) below 3000 MW.**
  - Issued on 8 Days.
- **No alerts issued for ARR below 2500 MW.**
- **Transmission Emergency Notices (unable to operate without post-contingency overloads):**
  - 5/14 Emergency Notice issued for the Rio Grande Valley due to forced outage at Pharr Magic Valley.
  - 5/20 Emergency Notice for Laredo Area due to RMR unit forced outage. ERCOT received 50 MW of emergency energy from CFE.
- **No EECs implemented for the month of May.**

- **Held the following Balancing Energy intervals due to input error:**
  - Held IE 05:00 on May 1
  - Held IE 11:30 and 17:30 on May 6<sup>th</sup>
  - Held IE 13:30 on May 12<sup>th</sup>
- **May 12<sup>th</sup>**
  - Held 19:00 interval due to software problems.

- **Implemented at 16:25 and terminated at 18:15**
- **Primary factors:**
  - Peak load 2100 MW higher than the Day-Ahead Load forecast due to temperature predictions being lower than actual (forecast precipitation failed to materialize).
- **Operational Response:**
  - Non-Spin Service deployed in all zones.
  - 3003 MW of additional capacity was procured collectively from RPRS, ERCOT OOMC, and QSE Self Committed units for Hour Ending 17:00.
- **Action Items**
  - ERCOT developing a methodology for taking into account forecast risks.
  - Implementation of PRR 763 will incorporate the AWS Truewind Forecast into day-ahead resource procurements (RPRS).

Questions ?