



## Item 8.3: Operations Report (Dec 2012)

H.B. "Trip" Doggett  
President & Chief Executive Officer

Board of Directors Meeting  
ERCOT Public  
January 15, 2013

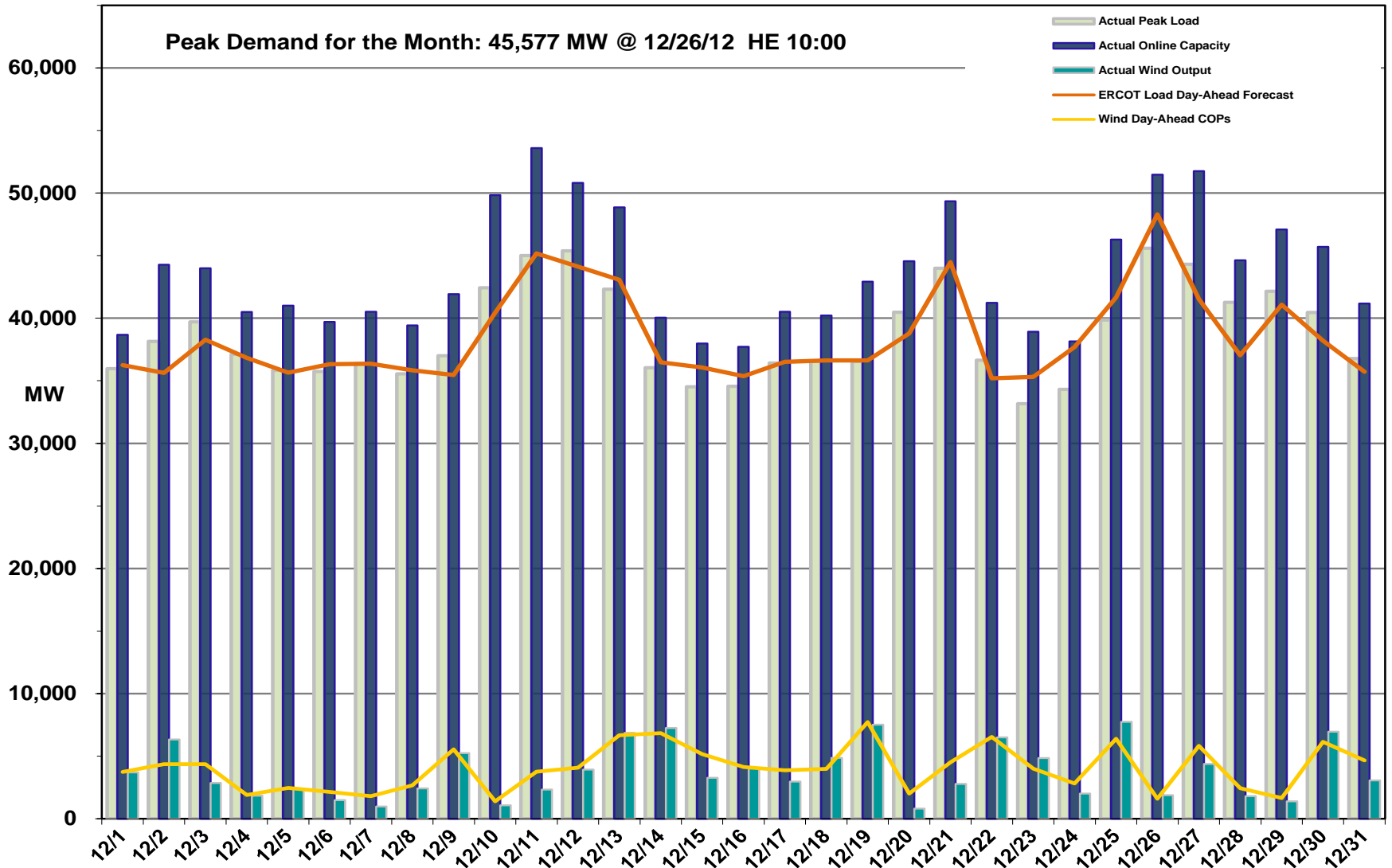
- **December 2012 Operations**

- The peak demand of 45,577 MW on December 26th was less than the mid-term forecast peak of 48,299 MW and less than the December 2011 actual peak demand of 50,100 MW. The instantaneous load on December 26<sup>th</sup> was 45,769 MW
- Day-ahead load forecast error for December was 3.47%
- No Advisories issued for Physical Responsive Capability (PRC) below 3000 MW
- No Watches were issued for PRC under 2500 MW
- No Energy Emergency Alert (EEA) events issued

- **Planning Activities**

- 152 active generation interconnection requests totaling over 46,000 MW, including 20,000 MW of wind generation as of December 31, 2012. The same number of requests but 3,000 MW additional total MW since November 30, 2012
- 10,407 MW wind capacity on line December 31, 2012; 372 MW more than November 30, 2012

# December 2012 Daily Peak Demand: Hourly Average Actual vs. Forecast, Wind Day-Ahead COPs & On-line Capacity at Peak



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



# Market Statistics – December 2012

<b>Market Statistics</b>	<b>Dec 2011</b>	<b>Dec 2012</b>	<b>2011 Average</b>	<b>2012 YTD Average</b>
Percentage of Real-Time load hedged in Day-Ahead Market	132.58%	121.71%	115.13%	122.66%
Average 'ERCOT Hub Average 345 kV Hub' Settlement Point Price in Day-Ahead Market (\$/MWh)	26.25	26.30	55.19	30.18
Average 'ERCOT Hub Average 345 kV Hub' Settlement Point Price in Real-Time (\$/MWh)	26.04	24.69	50.83	26.49

# Operational Performance Measures – December 2012

Performance Measure	Target Met	Further Information
Retail Transaction Performance (Target 98%)	No	<ul style="list-style-type: none"><li>• Retail transaction processing performance was 100% within protocol timelines for periods outside of the 12/3/2012 system outage.</li><li>• However, during the system outage on 12/3/2012 it was not possible for ERCOT systems to receive or process transactions.</li></ul>
Settlements Performance (Target 99%)	No	<ul style="list-style-type: none"><li>• 93.79% timely statement and invoice posting</li><li>• The reduced performance is a result of the system outages on 12/3/12 which caused a delay in posting RTM Settlement Statements and Settlement Invoices.</li></ul>

# Operational Dashboard – December 2012

Metric	Trending as Expected	Further Information
Day-Ahead Schedule	Yes	<ul style="list-style-type: none"> <li>• Normal level of market activity and liquidity</li> <li>• Loads appear to have hedged against exposure to Real-Time prices</li> </ul>
Day-Ahead Electricity And Ancillary Service Hourly Average Prices	Yes	<ul style="list-style-type: none"> <li>• Hourly average prices correctly reflect the opportunity cost of energy</li> </ul>
Day-Ahead vs Real-Time Load Zone Settlement Point Price (Hourly Average)	Yes	<ul style="list-style-type: none"> <li>• Day-Ahead &amp; Real-Time prices for different Load Zones reflect relative transmission congestion</li> <li>• Prices for Load Zone South higher due to outage related congestion in the Valley area</li> <li>• Day-Ahead prices in Load Zone West were higher due to thermal congestion in the DAM</li> </ul>
Day-Ahead vs Real-Time Trading Hub Settlement Point Price (Hourly Average)	Yes	<ul style="list-style-type: none"> <li>• The average energy price across the system reflects marginal offers and scarcity pricing impacts</li> <li>• Higher average Day-Ahead energy prices reflect the risk premium between Day-Ahead &amp; Real-Time</li> </ul>
Day-Ahead Reliability Unit (DRUC) Commitment Monthly Summary	Yes	<ul style="list-style-type: none"> <li>• Capacity committed by the DRUC process indicates the level of out of market activity needed Day-Ahead to maintain reliability</li> <li>• No resource was committed in DRUC in this month</li> </ul>

# Operational Dashboard – December 2012

Metric	Trending as Expected	Further Information
Hourly Reliability Unit Commitment (HRUC) Monthly Summary	Yes	<ul style="list-style-type: none"> <li>Capacity committed by the HRUC process indicates the level of out of market activity needed during the Operating Day to maintain reliability</li> <li>Two resources were committed in this month, one for the Valley Import constraint and one for a thermal constraint</li> </ul>
Supplemental Ancillary Service Market Monthly Summary	Yes	<ul style="list-style-type: none"> <li>Normal trend indicates that deliverability was not a major concern</li> <li>SASMs occurred for failures to provide and AS infeasibility</li> <li>AS infeasibility primarily occurred as a result of congestion in the Valley area</li> </ul>
Non-Spinning Reserve Service Deployment	Yes	<ul style="list-style-type: none"> <li>Offline Non-Spin was deployed once for congestion</li> </ul>
Congestion Revenue Rights Price Convergence	Yes	<ul style="list-style-type: none"> <li>Normal trend indicates good ability of market participants to estimate value of hedges</li> </ul>

# Operational Dashboard – December 2012

Metric	Trending as Expected	Further Information
Retail Transactions	Yes	<ul style="list-style-type: none"> <li>Seasonal variations in transaction volumes trending as expected</li> </ul>
Advanced Metering	Yes	<ul style="list-style-type: none"> <li>94.2% of ERCOT load settled with 15-minute interval data.</li> <li>6.1M Advanced Metering System (AMS) Electric Service Identifier (ESIIDs) included in settlement as of 12/26/12*</li> </ul>
Settlement Dollars	Yes	<ul style="list-style-type: none"> <li>As of settlement of Operating Day 12/22/12*, the daily average settlement dollars are trending to be near \$7.9M, which is down from \$9.7M in November and expected to be higher than December 2011.*</li> </ul>
Revenue Neutrality	Yes	<ul style="list-style-type: none"> <li>As of settlement of Operating Day 12/22/12*, Revenue Neutrality uplift is trending as a charge of nearly \$.67M, which is up slightly from last month and down significantly to December 2011.</li> </ul>
Market-Based Uplift to Load	Yes	<ul style="list-style-type: none"> <li>As of settlement of Operating Day 12/22/12*, the market-based uplift to load is trending as a credit of \$7M, as opposed to a \$.95M charge in November and a credit of 8.59M in December 2011</li> </ul>

\* For full month detail refer to the Monthly Operational Overview.



# Market Enhancements Under Consideration

Enhancement	Further Information
Evaluating market design improvement proposals	<ul style="list-style-type: none"><li>• Ongoing discussions with stakeholders on<ul style="list-style-type: none"><li>• Over mitigation in Real Time Market</li><li>• Price reversal during ERS deployments</li><li>• Reduction to settlement timeline</li><li>• Competitive Constraint Test design improvements</li></ul></li></ul>
Evaluating Pilot Project Feasibility	<ul style="list-style-type: none"><li>• FRRS pilot project and governing document approved at November Board meeting</li><li>• Expected to start first quarter of this year</li></ul>
Look-Ahead SCED	<ul style="list-style-type: none"><li>• Analyzing performance of the future indicative prices that are currently being posted by ERCOT</li><li>• Working with Market Participants to improve the quality of future indicative prices</li></ul>

# Major Project Highlights

Project	Trending as Expected	Further Information
SCR760 – Recommended Changes Needed for Information Model Manager and Topology Processor for Planning Models	Yes	Vendor development work for SCR760-1 and SCR760-6, the final two enhancements, is in progress. Schedule and budget on track, with a target release to production by end of June 2013.
EMS Upgrade – Upgrade EMS and OTS from ALSTOM EMP 2.3 to EMP 3.0	Yes	<p>Phase 1 Planning is on schedule to complete code comparison activities between the ALSTOM base product and ERCOT’s production version. Operator Training Simulator, Load Forecast and SCADA comparisons are completed, other comparisons for Generation and Network Applications on track. A Statement of Work package, including cost and schedule from ALSTOM, is also on track for delivery in January.</p> <p>Phase 2 Planning, leveraging results of the comparisons from Phase 1, will start in Q1, 2013.</p>
Oracle 11g Upgrade – Upgrade Oracle databases and related tools that support ERCOT’s application portfolio from Oracle 10g to Oracle 11g	Yes	<p>Overall schedule and budget remain intact, however the database upgrades planned for December and January were delayed due to impacts from December’s production storage event and associated recovery efforts.</p> <p>The team is currently reviewing the schedule to identify windows of opportunity that can accommodate the delayed upgrades with the intent to keep overall project schedule and budget intact. Impacts to overall schedule and budget, if any, will be confirmed by February.</p>
CRR Upgrade – Upgrades the CRR clearing engine and associated components to Linux in order to provide measurable performance improvements in the annual auction	No	<p>As previously reported, the production launch in Q4 2012 was delayed due to defects in the vendor’s code. The vendor delivered the anticipated defect patch in December and testing on this patch has been progressing well with no major issues.</p> <p>Based on these latest developments, the team is tentatively targeting April for the revised production launch, but will confirm the schedule and budget impacts upon completion of re-plan efforts later this month.</p>

# Major Project Highlights

Project	Trending as Expected	Further Information
<p>Settlement System Upgrade – Replace proprietary code, data structures and tools with an ERCOT supported solution</p>	<p>Yes</p>	<p>Re-plan efforts are continuing and will complete on schedule by end of January.</p> <p>The team was able to test and confirm significant pieces of the re-design in December and is currently finalizing the documentation for the change in approach for the processing engine/framework. A key focus of December’s re-design work was purposefully targeted and completed in order to avoid additional delays to business logic coding efforts. These business logic efforts are also moving forward, leveraging the design output from December.</p> <p>Key management is now reviewing the overall schedule and resource allocations to confirm production launch dates, with the goal of minimizing further delays. Additional development resources have been added to the project team to not only support target delivery timelines, but also to minimize lock-down periods that could impact NPRR or other Market-driven changes. The team is also taking opportunities to account for known NPRR work in the revised schedule.</p> <p>Final schedule and budget impacts will be known by end of January and a full detail of any impacts to schedule and budget is still on target for delivery to the Board in March.</p>

The ***ERCOT Monthly Operational Overview*** will be posted to (<http://www.ercot.com/committees/board/>) on the 15<sup>th</sup> day of the following month