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# ERCOT Monthly Operational Overview (**October 2013**)

ERCOT Public  
November 15, 2013

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# **Grid Operations & Planning**

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## Summary – October 2013

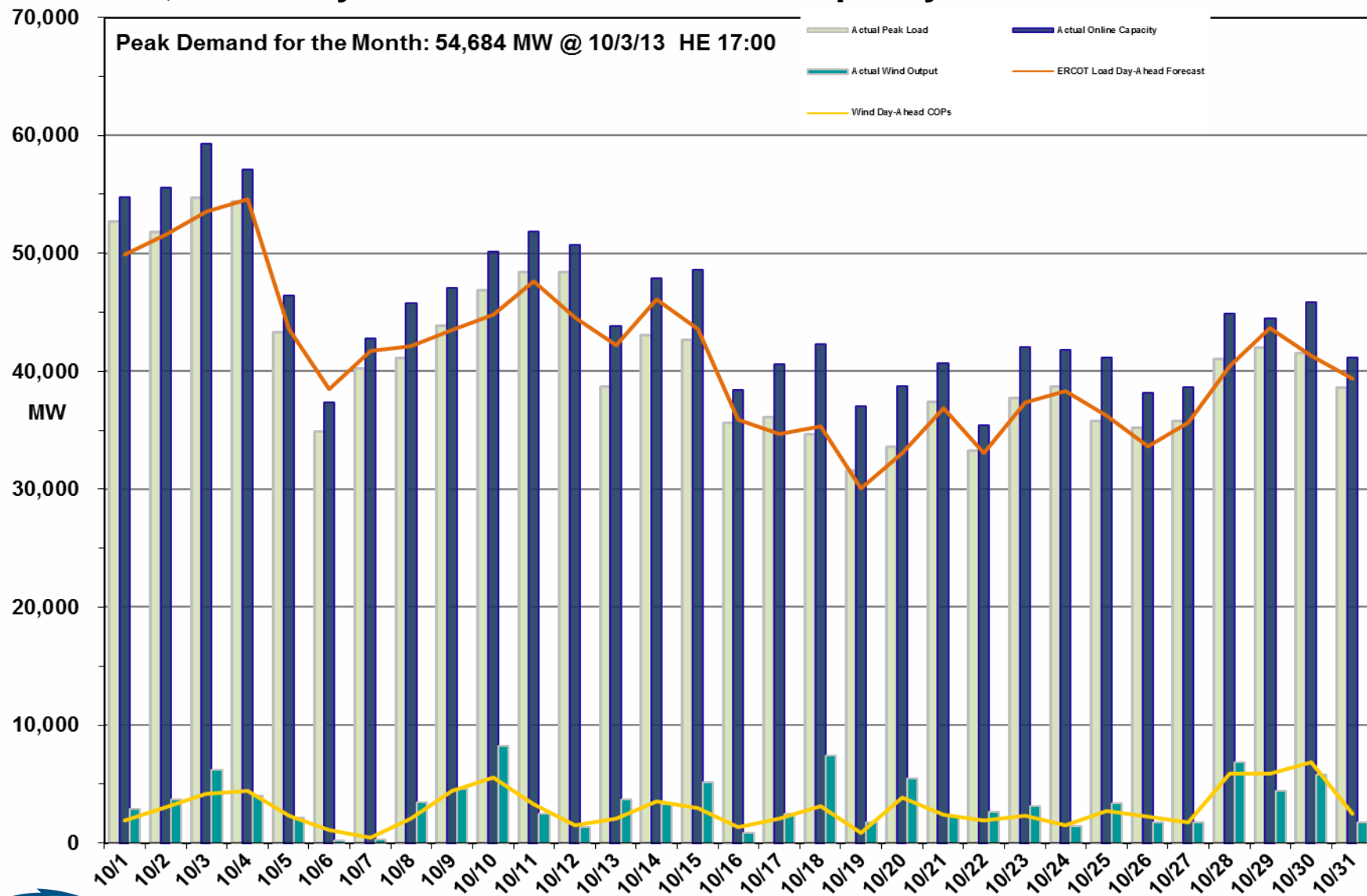
- **Operations**

- The peak demand of 54,684 MW on October 3<sup>rd</sup> was more than the mid-term forecast peak of 53,537 MW as well as the October 2012 actual peak demand of 48,274 MW. The instantaneous load on October 3<sup>rd</sup> was 54,830 MW.
- Day-ahead load forecast error for October was 2.87%
- ERCOT issued four advisories.
  - Single advisory for state estimator, RTCA and VSAT/TSAT not solved for 30 minutes
  - Three advisories for Physical Responsive Capability (PRC) below 3000 MW.
- No Watches were issued
- No Emergency Notices were issued
- No Energy Emergency Alert (EEA) events

- **Planning Activities**

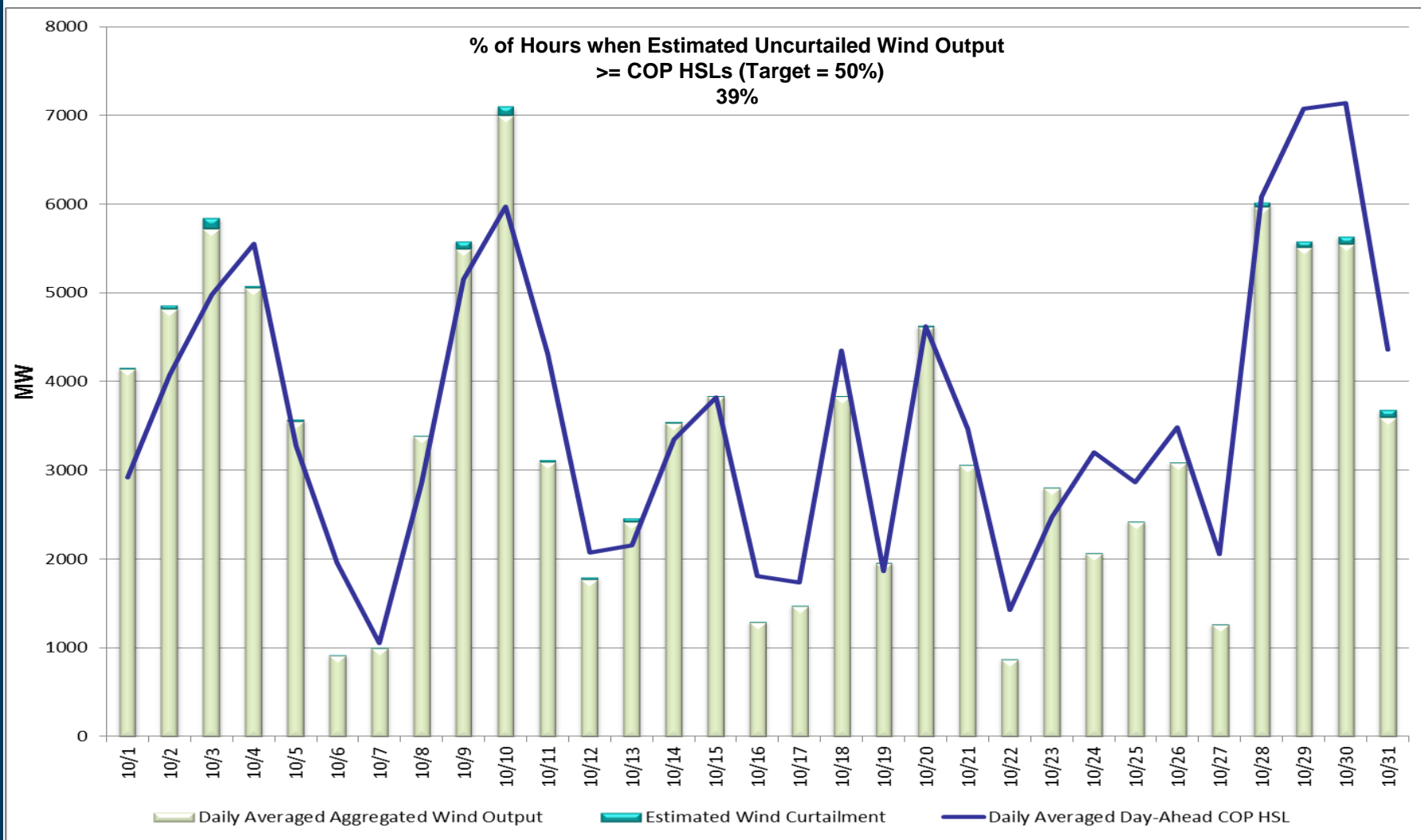
- 182 active generation interconnection requests totaling over 47,100 MW, including 22,800 MW of wind generation as of October 31, 2013. Fourteen more requests and 4,800 more MW from September 30, 2013.
- 10,970 MW wind capacity in commercial operation October 31, 2013; no change from September 30, 2013.

# Daily Peak Demand: Hourly Average Actual vs. Forecast, Wind Day-Ahead COPs & On-line Capacity at Peak – Oct. 2013



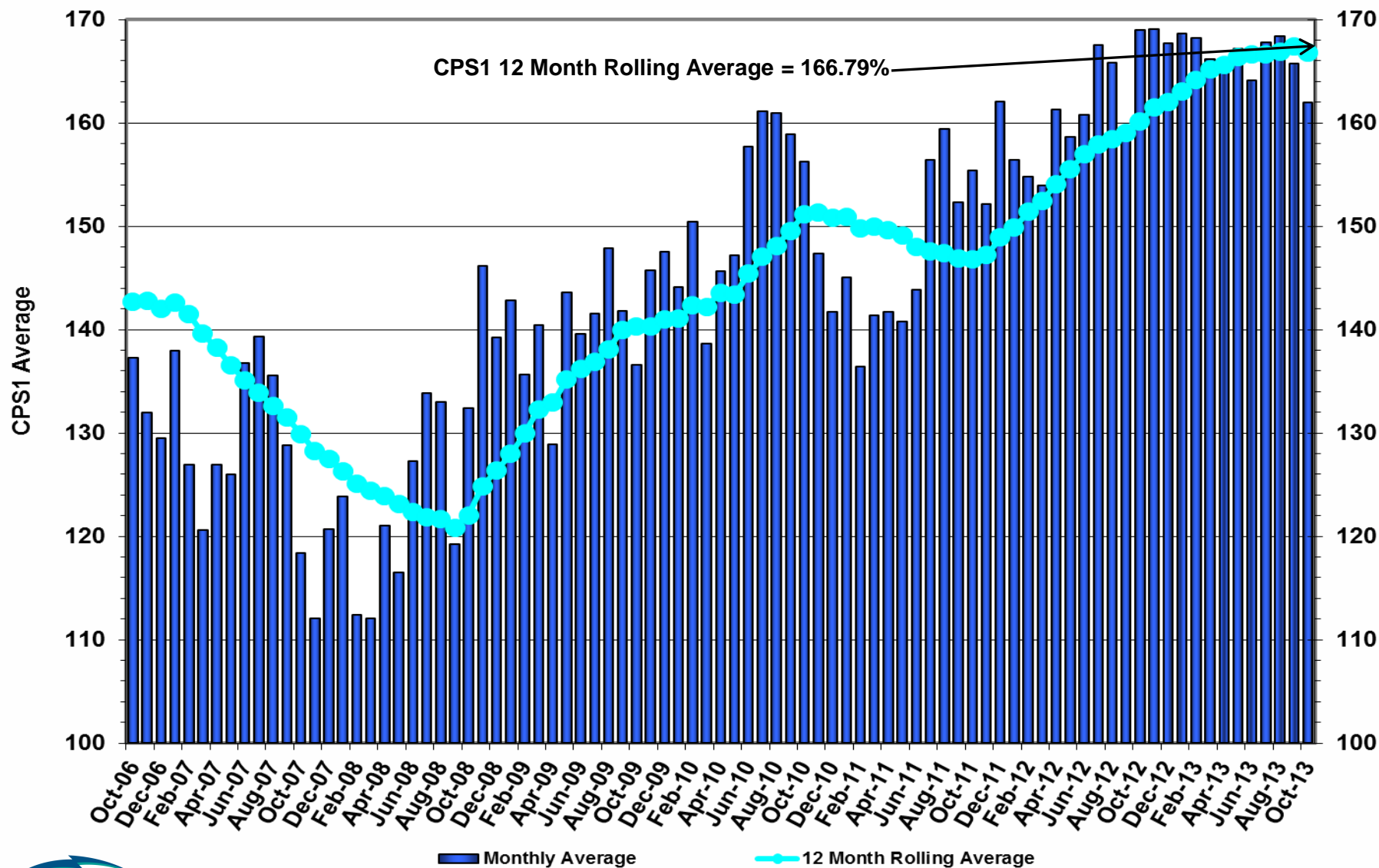
ERCOT Public Note: All data are hourly averages during the peak load hour obtained from COPs, and EMMS.

# Actual Wind Output plus Curtailments vs. Wind Day-Ahead COPs for All Hours – October 2013

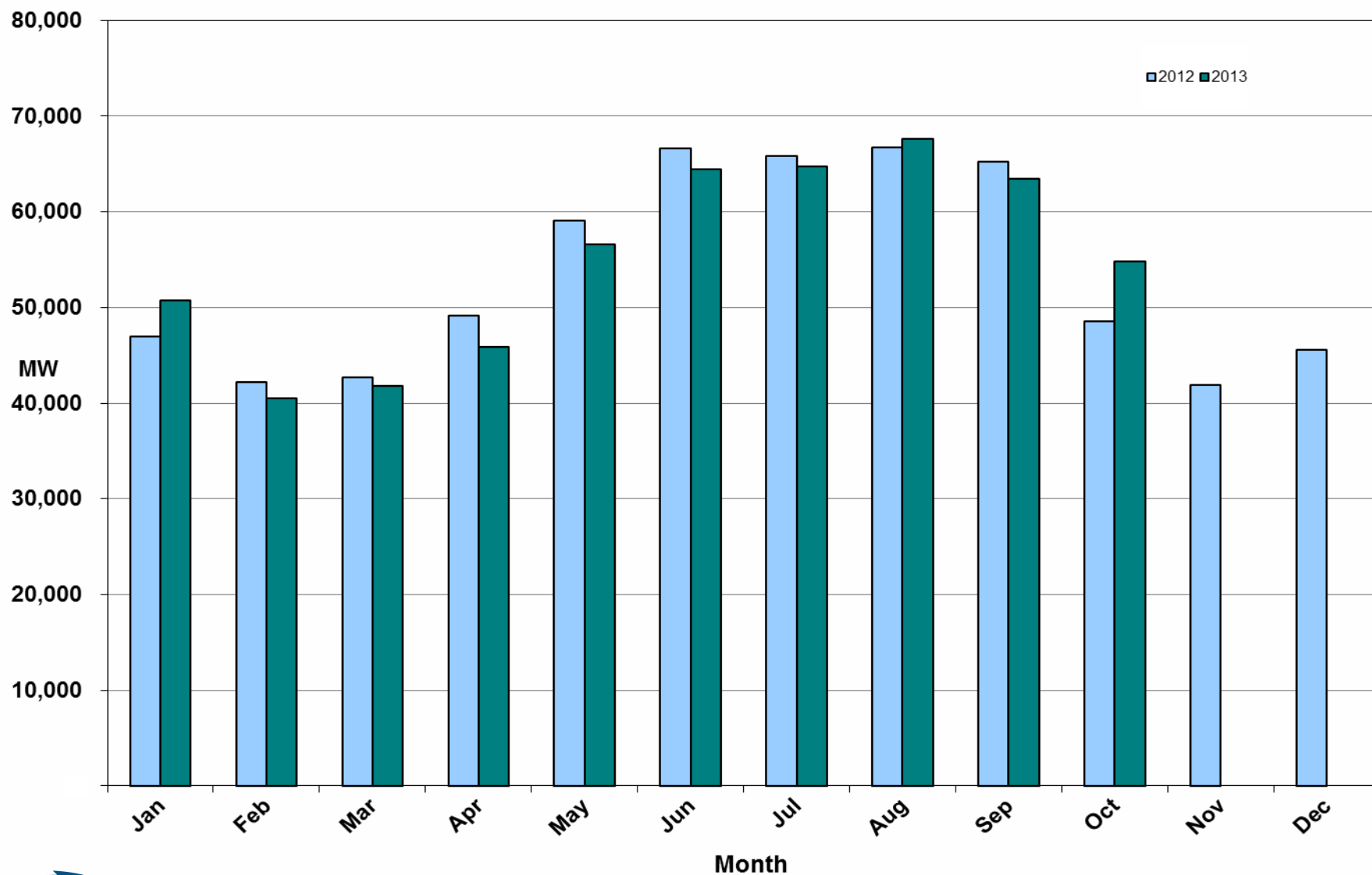


**Note: QSEs must use the AWST 50% probability of exceedance forecast as the HSL in their COPs**

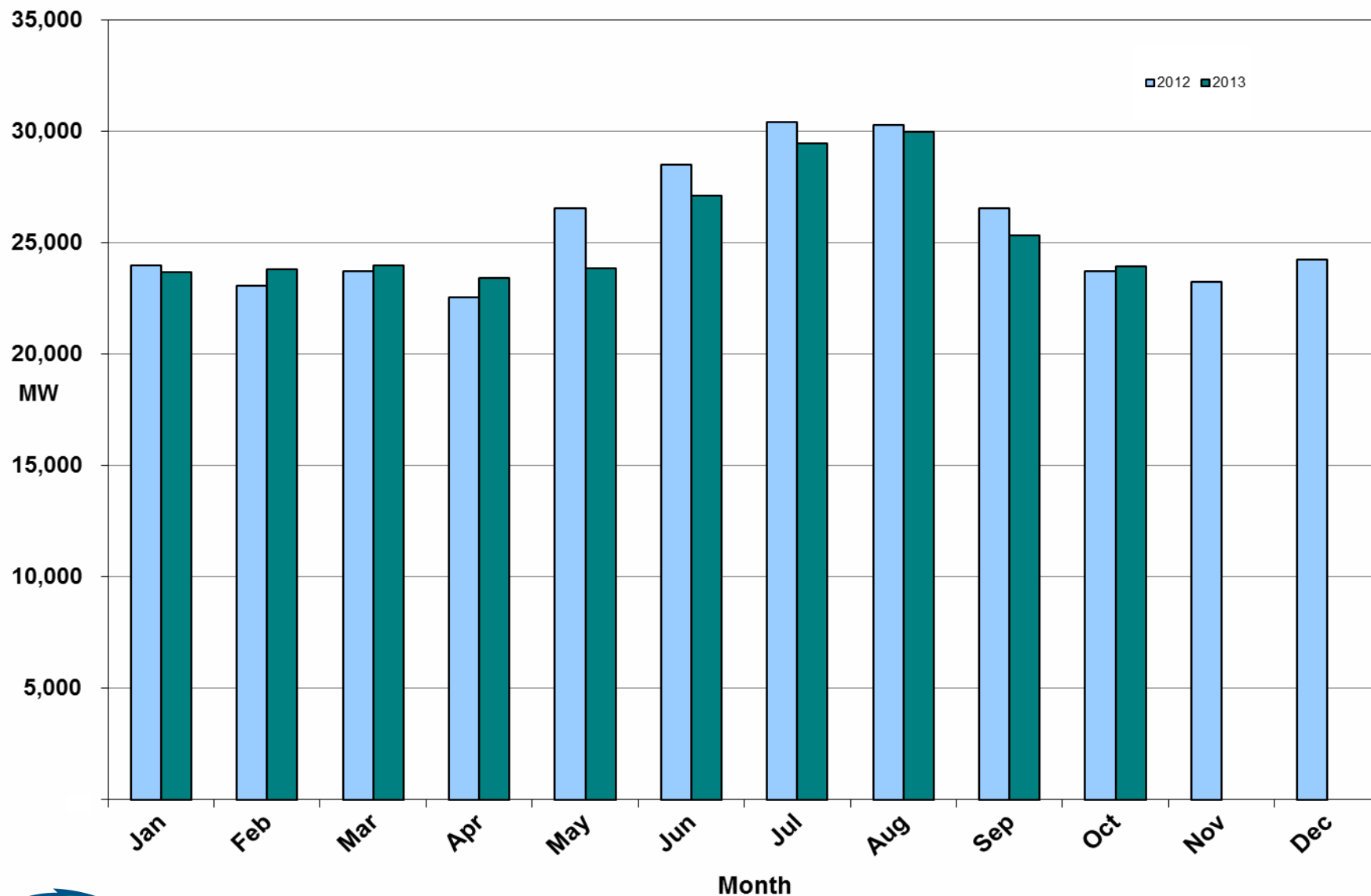
# ERCOT's CPS1 Monthly Performance – October 2013



## Monthly Peak Actual Demand – October 2013



## Monthly Minimum Actual Demand – October 2013



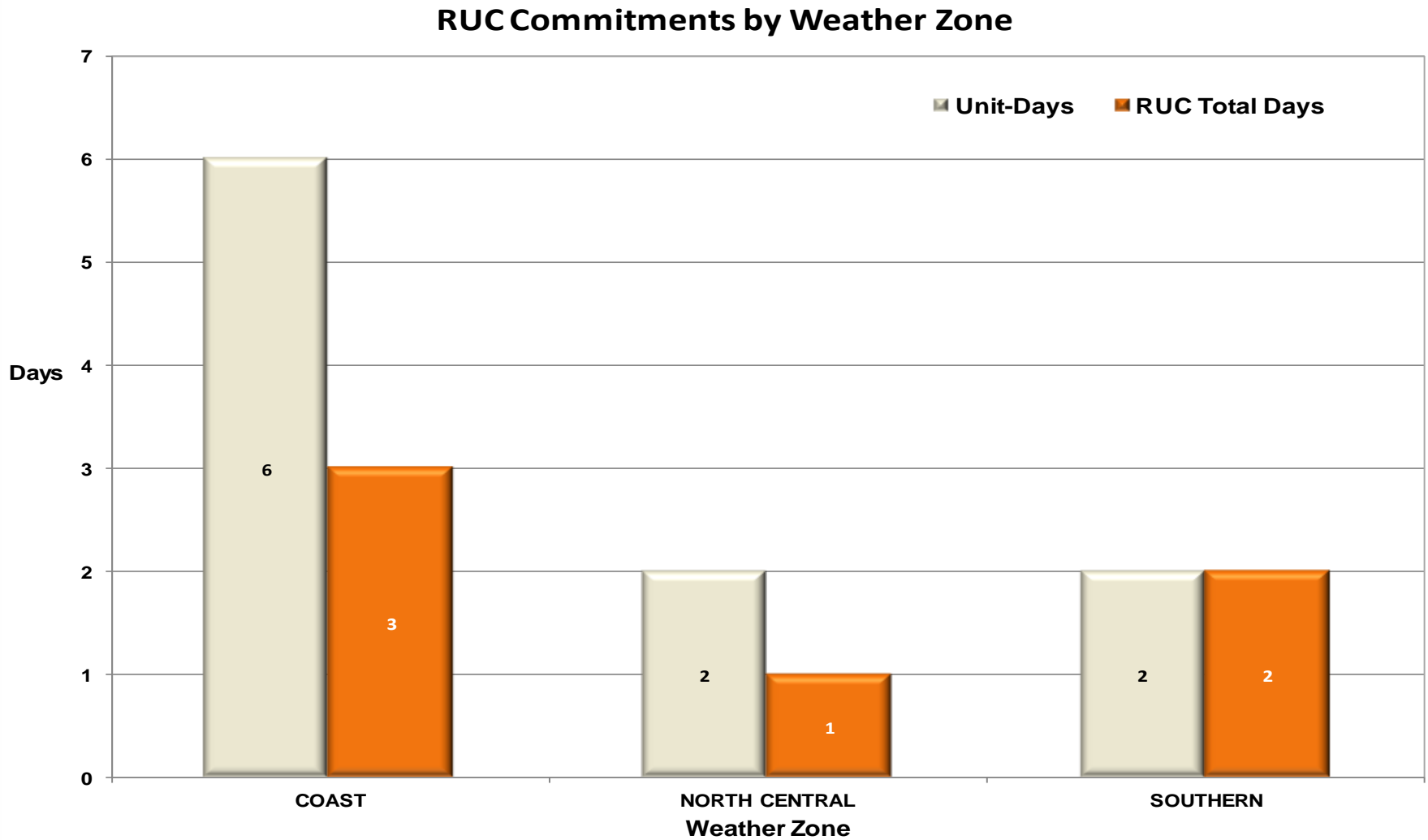


## Day-Ahead Load Forecast Performance - **October 2013**

**Mean Absolute Percent Error (MAPE) for ERCOT Mid-Term Load Forecast (MTLF)  
Run at 14:00 Day Ahead**

|                                     | <b>2010<br/>MAPE</b> | <b>2011<br/>MAPE</b> | <b>2012<br/>MAPE</b> | <b>2013<br/>MAPE</b> | <b>Oct 2013<br/>MAPE</b>          |                             |
|-------------------------------------|----------------------|----------------------|----------------------|----------------------|-----------------------------------|-----------------------------|
| <b>Average<br/>Annual<br/>MAPE</b>  | <b>2.83</b>          | <b>2.83</b>          | <b>3.02</b>          | <b>2.75</b>          | <b>2.87</b>                       |                             |
| <b>Lowest<br/>Monthly<br/>MAPE</b>  | <b>2.24</b>          | <b>1.63</b>          | <b>2.51</b>          | <b>2.07</b>          | <b>Lowest<br/>Daily<br/>MAPE</b>  | <b>0.73</b><br>October – 22 |
| <b>Highest<br/>Monthly<br/>MAPE</b> | <b>3.79</b>          | <b>3.55</b>          | <b>3.49</b>          | <b>3.50</b>          | <b>Highest<br/>Daily<br/>MAPE</b> | <b>9.93</b><br>October – 6  |

## Reliability Unit Commitment (RUC) Capacity by Weather Zone - October 2013



## Generic Transmission Limits (GTLs) – October 2013

| GTLs            | Oct 12<br>Days<br>GTLs | Aug 13<br>Days<br>GTLs | Sep 13<br>Days<br>GTLs | Oct 13<br>Days<br>GTLs | Last 12<br>Months<br>Total Days<br>(Sep12 – Sep13) |
|-----------------|------------------------|------------------------|------------------------|------------------------|--|
| North – Houston | 0                      | 0                      | 0                      | 0                      | 0  |
| West – North    | 14                     | 0                      | 1                      | 1                      | 62   |
| Valley Import   | 0                      | 0                      | 0                      | 0                      | 0  |

**GTL:** A transmission flow limit more constraining than a Transmission Element's normal limit established to constrain flow between geographic areas of the ERCOT Transmission System that is used to enforce stability and voltage constraints that cannot be modeled directly in ERCOT's transmission security analysis applications.

**Note:** This table lists how many times a constraint has been activated to avoid exceeding a GTL limit, it does not imply an exceedance of the GTL occurred.

## Advisories and Watches – October 2013

- Advisories issued for application issues.
  - Issued one day (10/02)
    - State Estimator, RTCA, and VSAT/TSAT not solved in 30 minutes.
- Advisories issued for Physical Responsive Capability (PRC) below 3000 MW.
  - Issued three instances over two days (10/26, 10/27, 10/27)
- Transmission Watches
  - None
- Emergency Notice
  - None
- Energy Emergency Alerts
  - None
- OCNs
  - Issued one day (10/01)
    - Projected Reserve Capacity Shortage

## Significant Events – October 2013

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- No significant events to report

## Lake Levels Update – November 1, 2013

| Surface Water & (MW)       | *Level @ Full Conservation Pool | *Level on Jan 1, 2011 | *Level on Oct 7, 2011 | *Level on Nov 1, 2013 |
|----------------------------|---------------------------------|-----------------------|-----------------------|-----------------------|
| Lake Texana (56)           | 44.50                           | 41.00                 | 32.81                 | 41.31                 |
| Bardwell Lake (312)        | 421.00                          | 420.71                | 416.23                | 416.57                |
| Lake Colorado City (407)   | 2,070.20                        | 2057.33               | 2052.4                | 2049.91               |
| Lake Ray Hubbard (916)     | 435.50                          | 432.37                | 429.22                | 428.78                |
| Lake Granbury (983)        | 693.00                          | 691.90                | 686.27                | 684.66                |
| Lake Houston (1016)        | 41.73                           | 42.10                 | 36.76                 | 43.09                 |
| Twin Oaks Reservoir (1616) | 400                             | 398.87                | 398.27                | 400.12                |
| Lake Limestone (1689)      | 363                             | 359.03                | 354                   | 363.33                |
| Martin Lake (2425)         | 306                             | 300.48                | 295.06                | 305.04                |

\* In Feet above Mean Sea Level

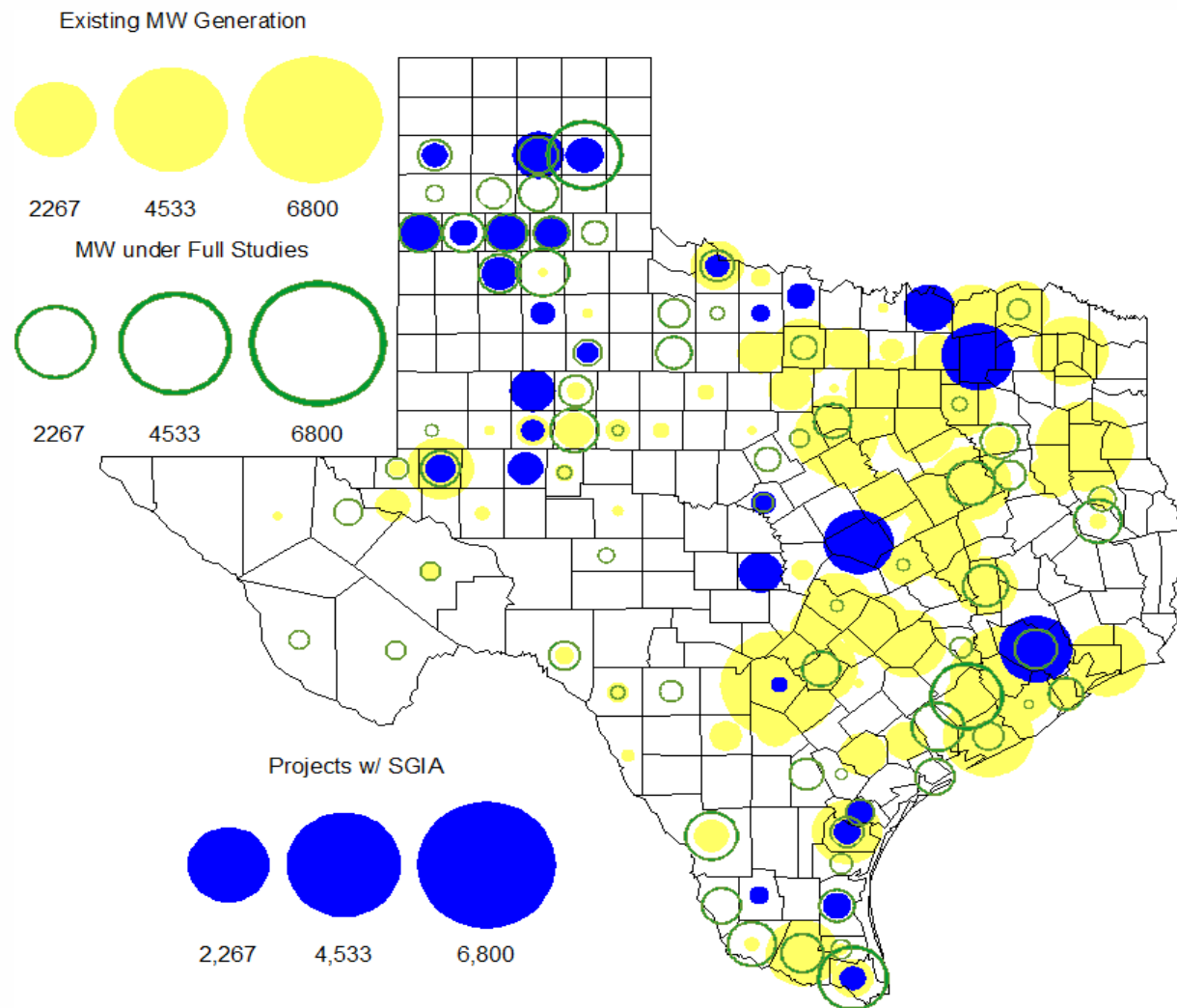


## Planning Summary – **October 2013**

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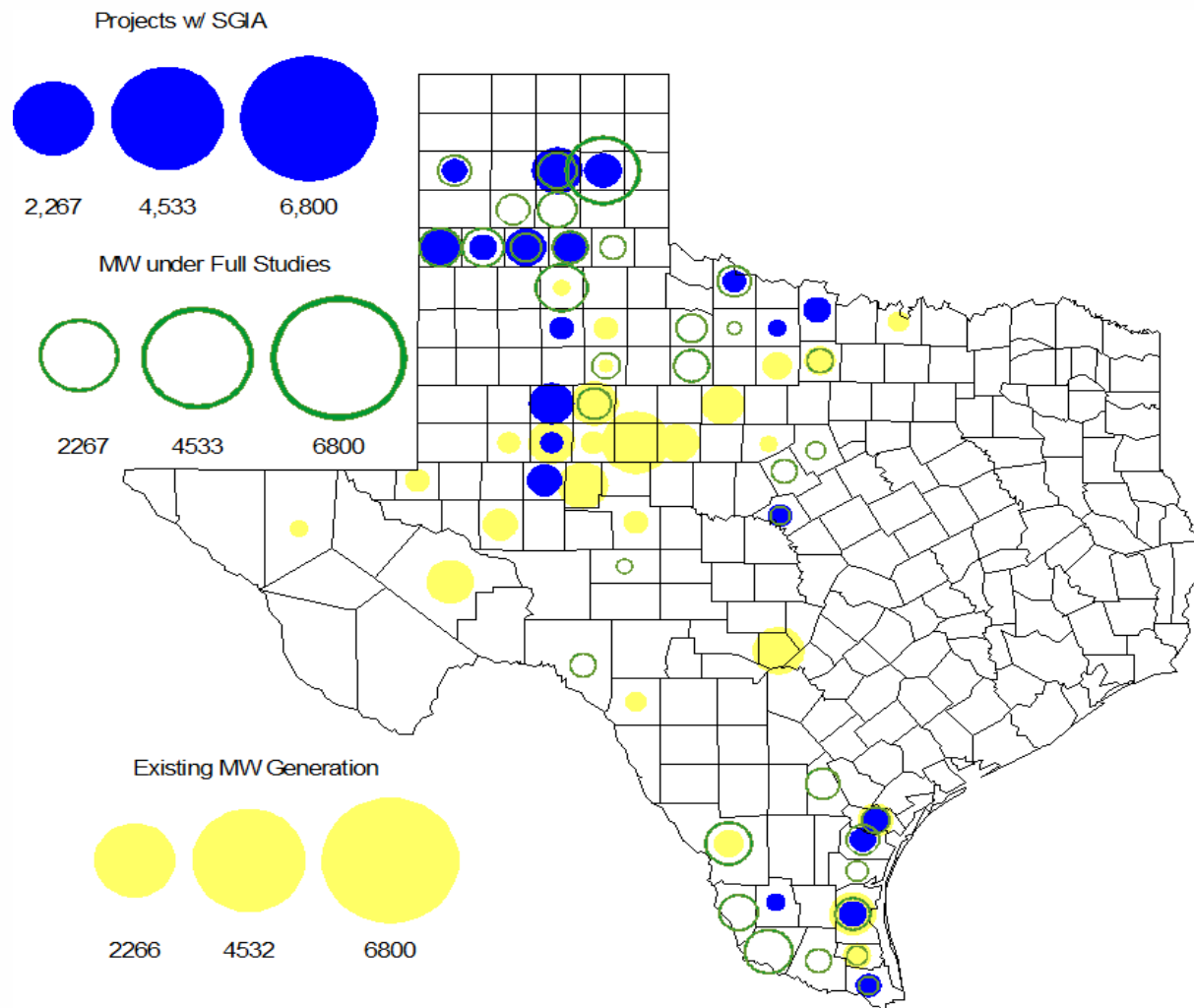
- **ERCOT is currently tracking 182 active generation interconnection requests totaling over 47,100 MW. This includes over 22,800 of wind generation.**
- **ERCOT is currently reviewing proposed transmission improvements with a total cost of \$675 Million**
- **Transmission Projects endorsed in 2013 total \$349.8 Million**
- **All projects (in engineering, routing, licensing and construction) total approximately \$6.23 Billion.**
- **Transmission Projects energized in 2013 total about \$3.17 Billion.**

# County Location of Installed Generation with Interconnection Requests (all fuels) – **October 2013**

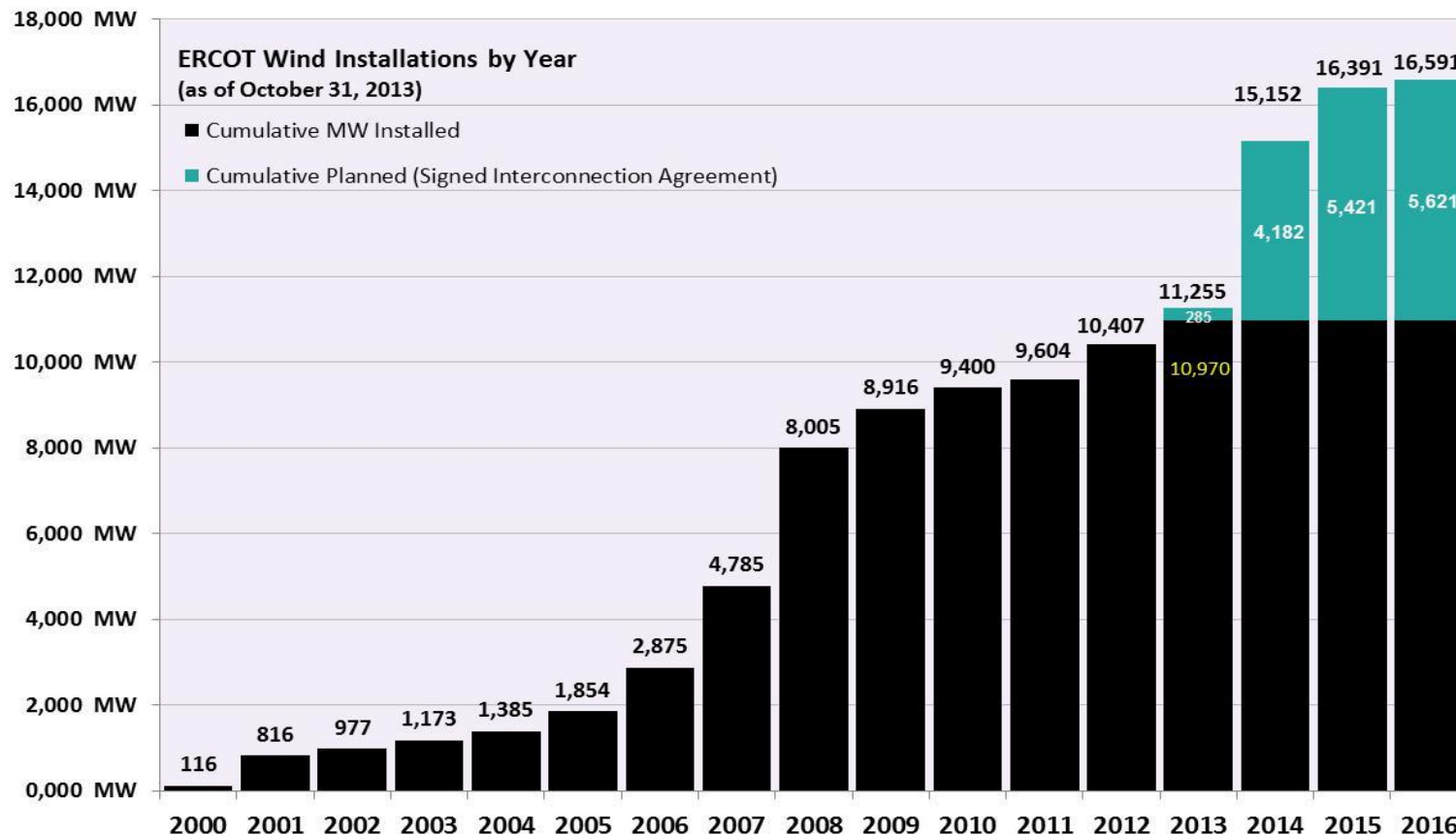




# County Location of Wind Generation – October 2013



# Wind Generation – October 2013



The data presented here is based upon the latest registration data provided to ERCOT by the resource owners and can change without notice. Any capacity changes will be reflected in current and subsequent years' totals. Scheduling delays will also be reflected in the planned projects as that information is received.

This chart reflects planned units in the calendar year of submission rather than installations by peak of year shown.

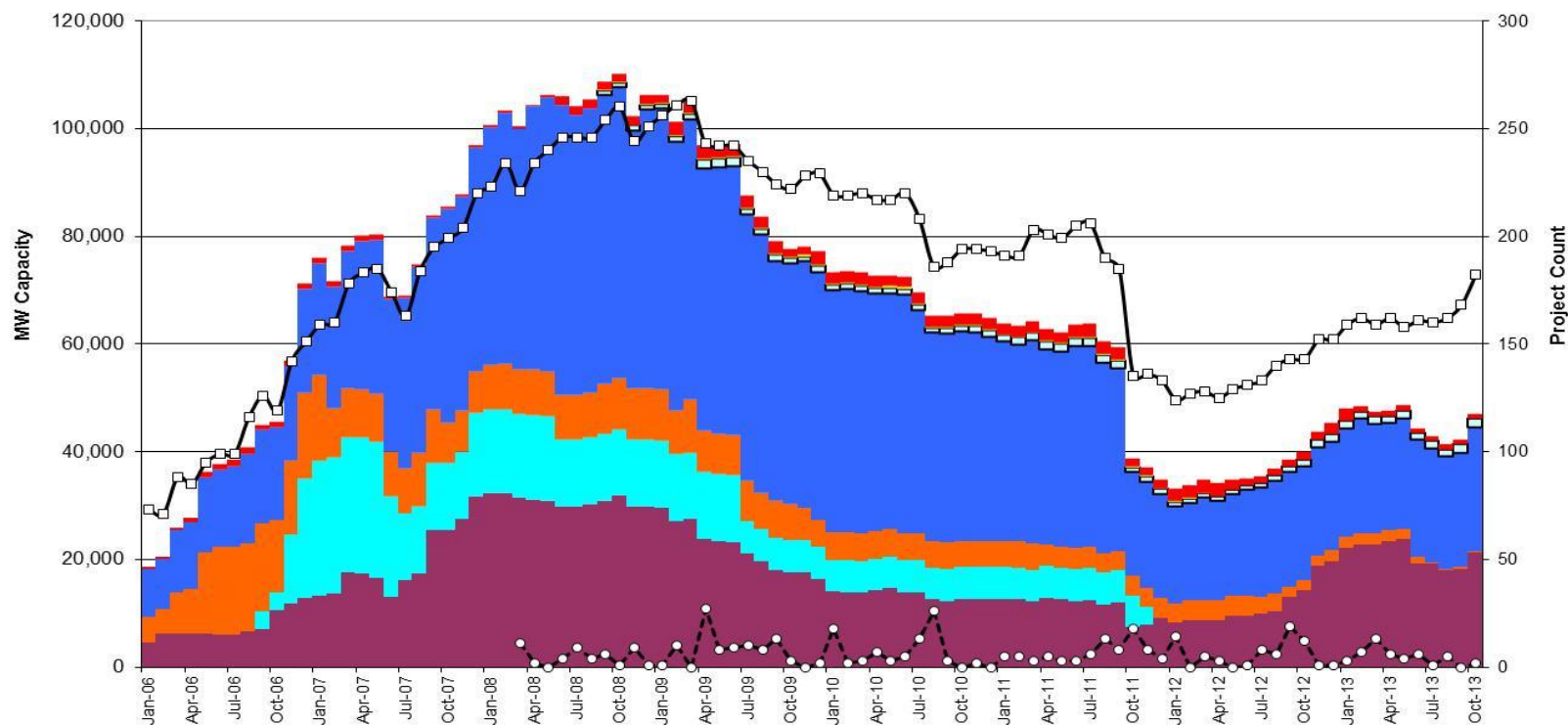


# Generation Interconnection Activity by Fuel – October 2013

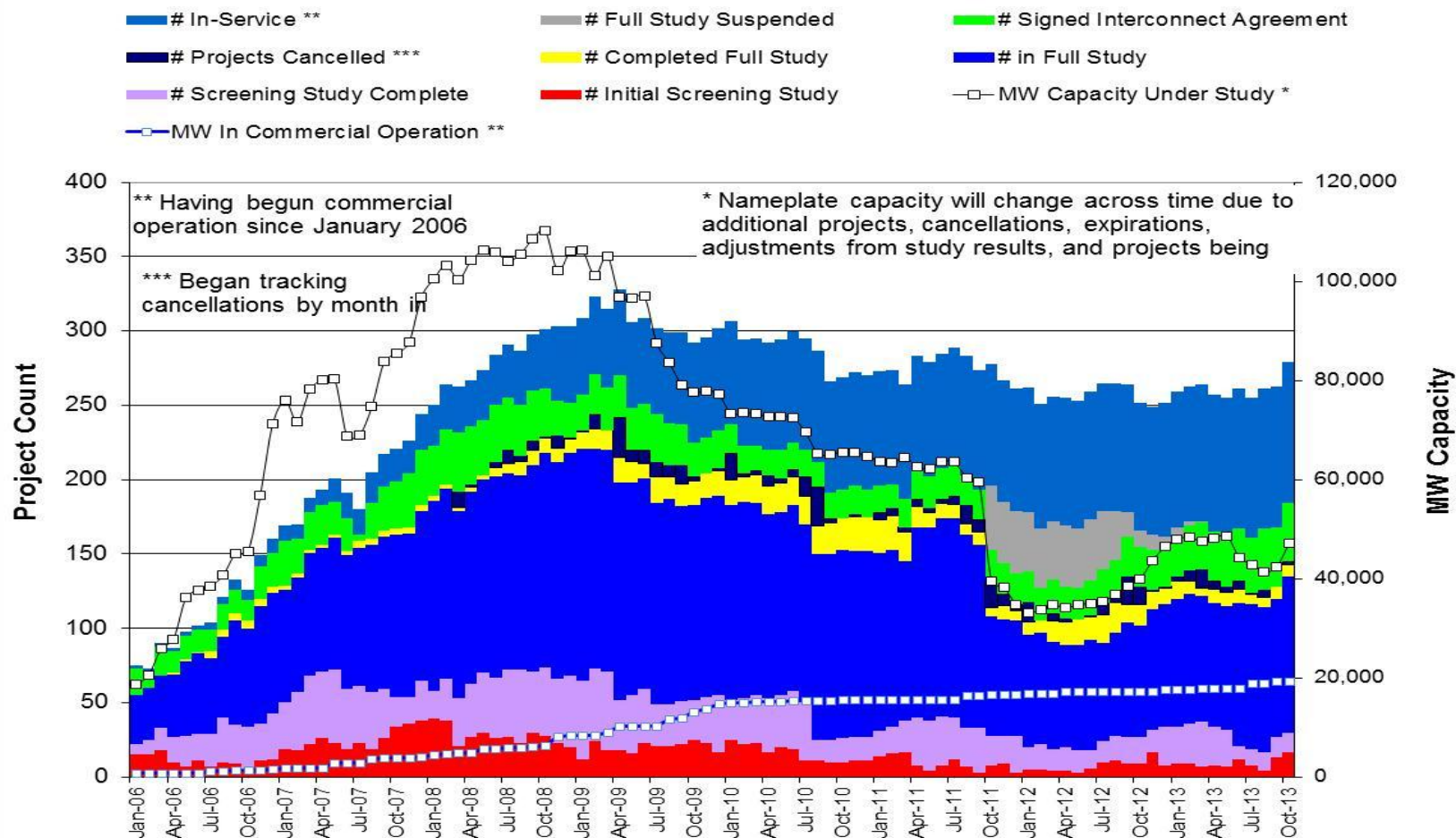


\* Prior to September 2008, Category "Other" included "Solar" and "Biomass"  
 Projects in all phases of interconnection study are reflected in this graph  
 Project cancellation tracking by month began in March 2008

Note: Suspended Projects are not included in this



# Generation Interconnection Activity by Project Phase – October 2013

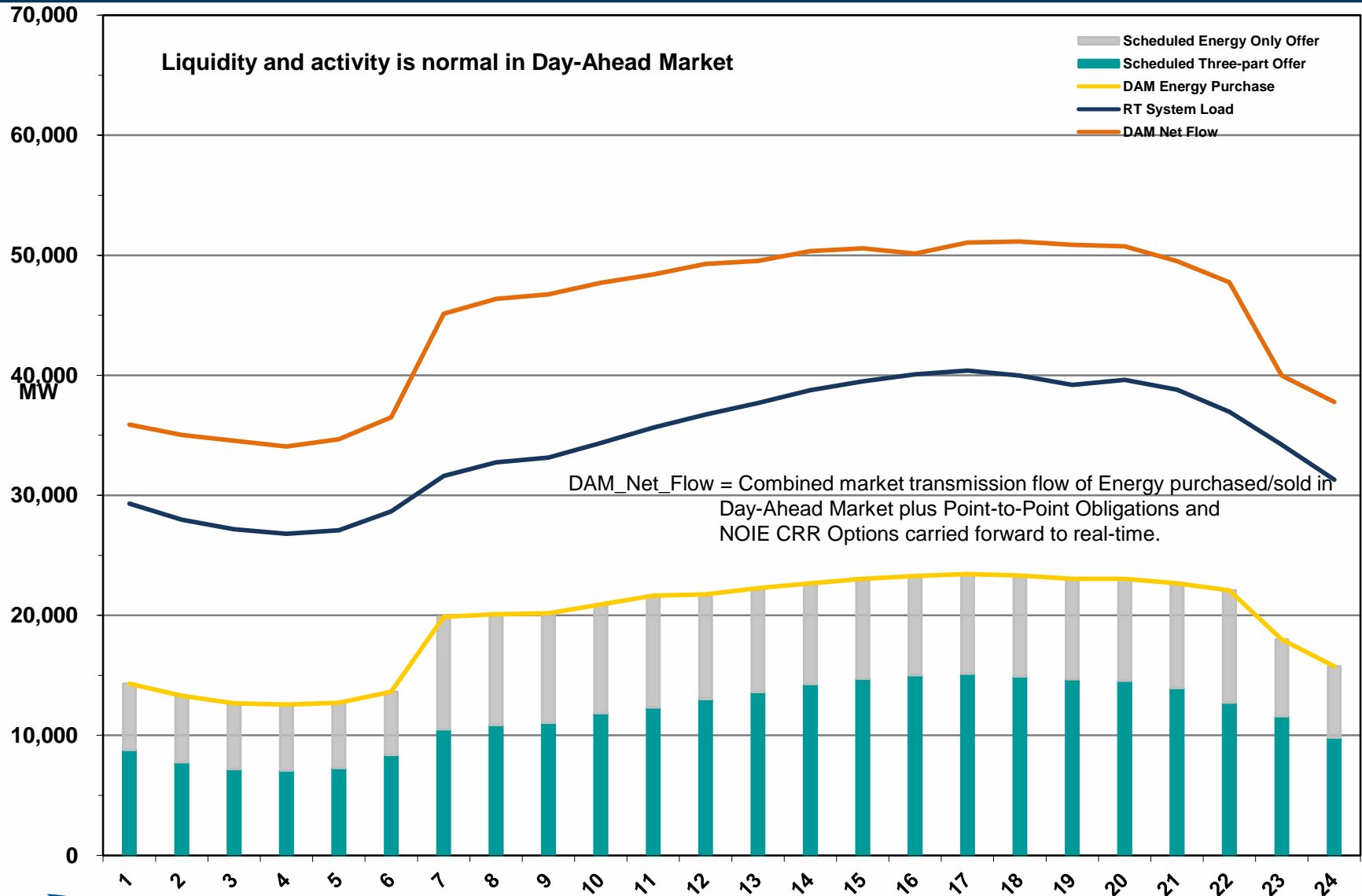


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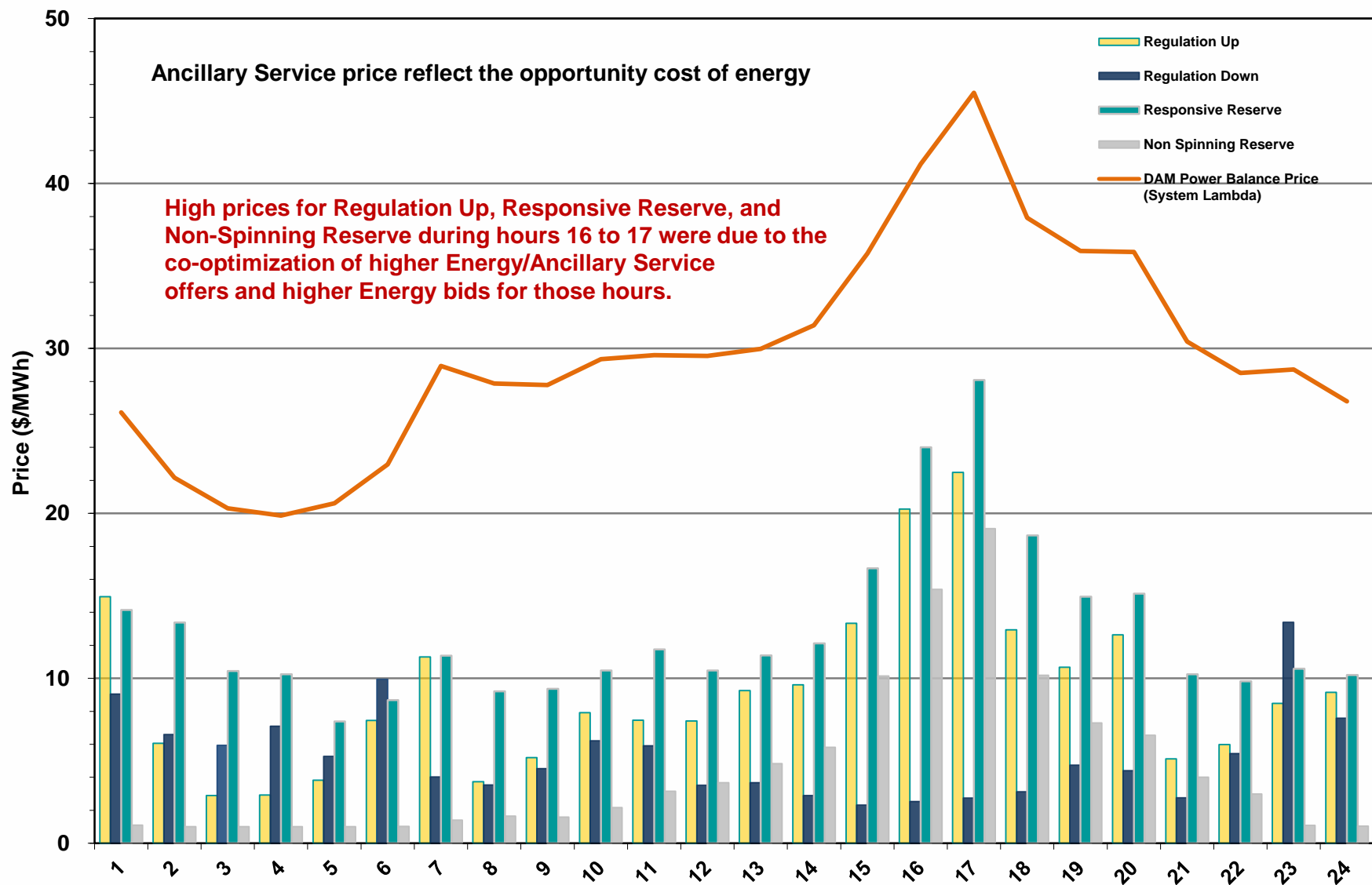
# **Market Operations**

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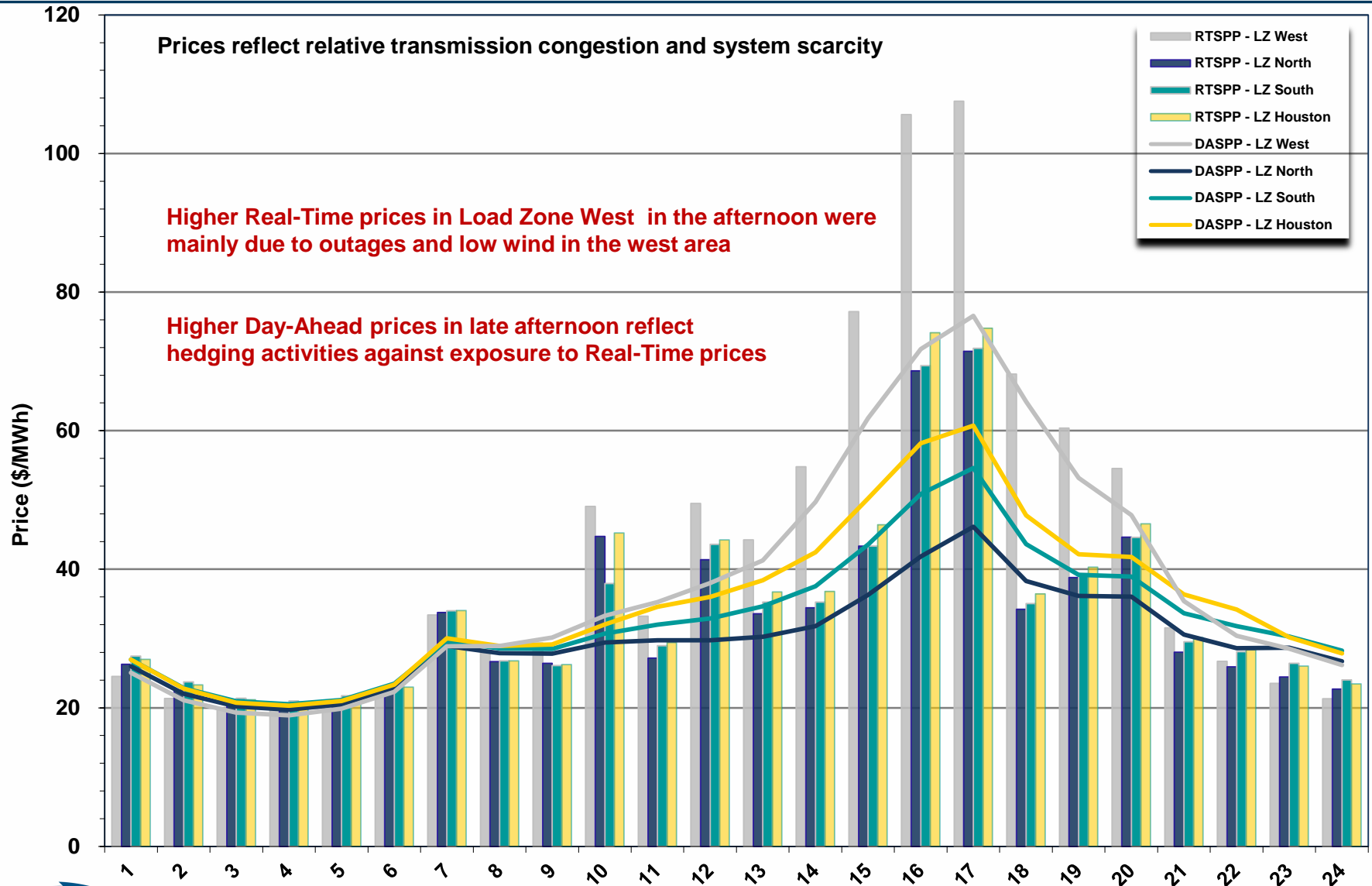
# Day-Ahead Schedule (Hourly Average) – October 2013



# Day-Ahead Electricity And Ancillary Service Hourly Average Prices – October 2013

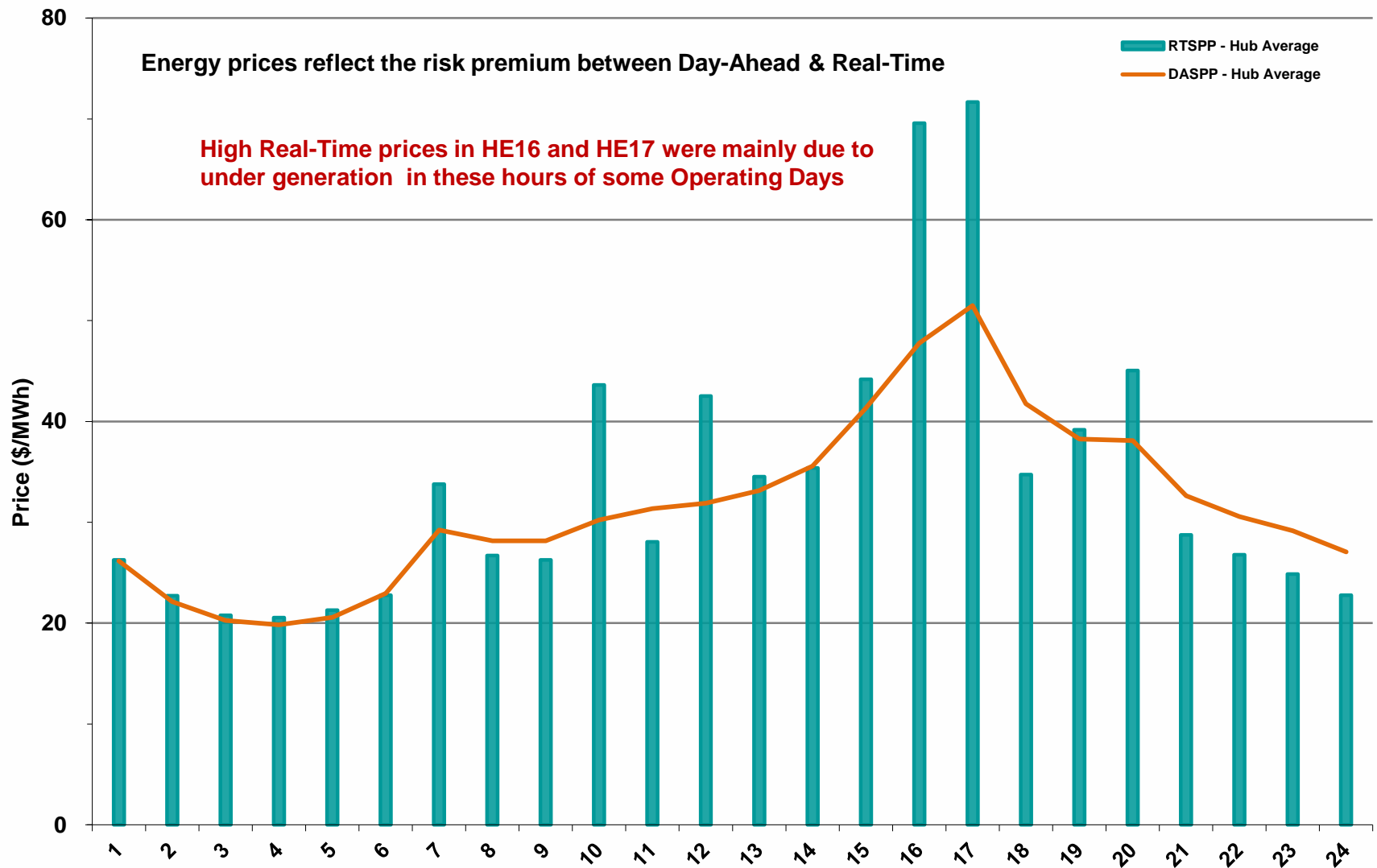


# Day-Ahead Vs Real-Time Load Zone SPP (Hourly Average) – October 2013

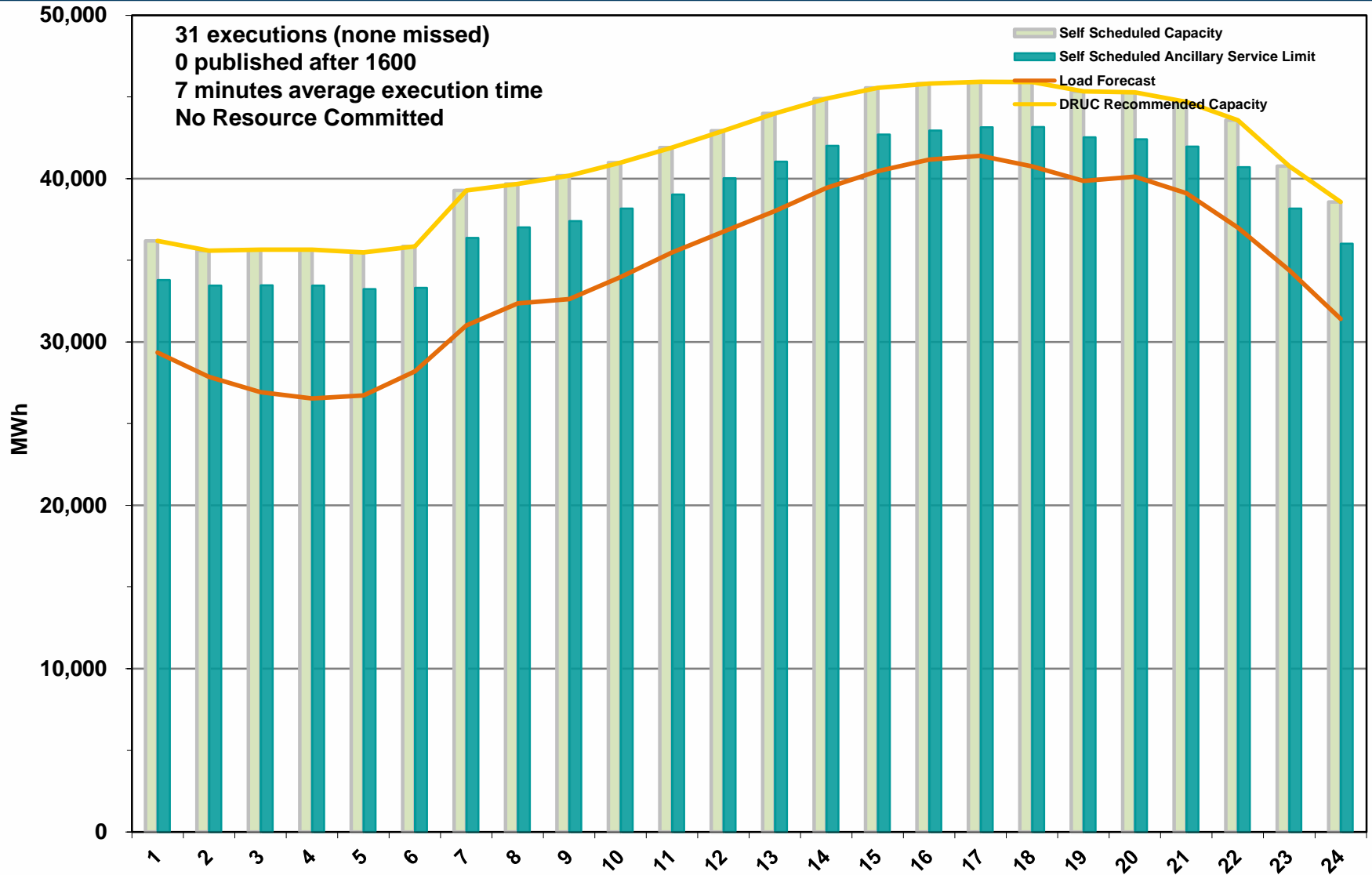




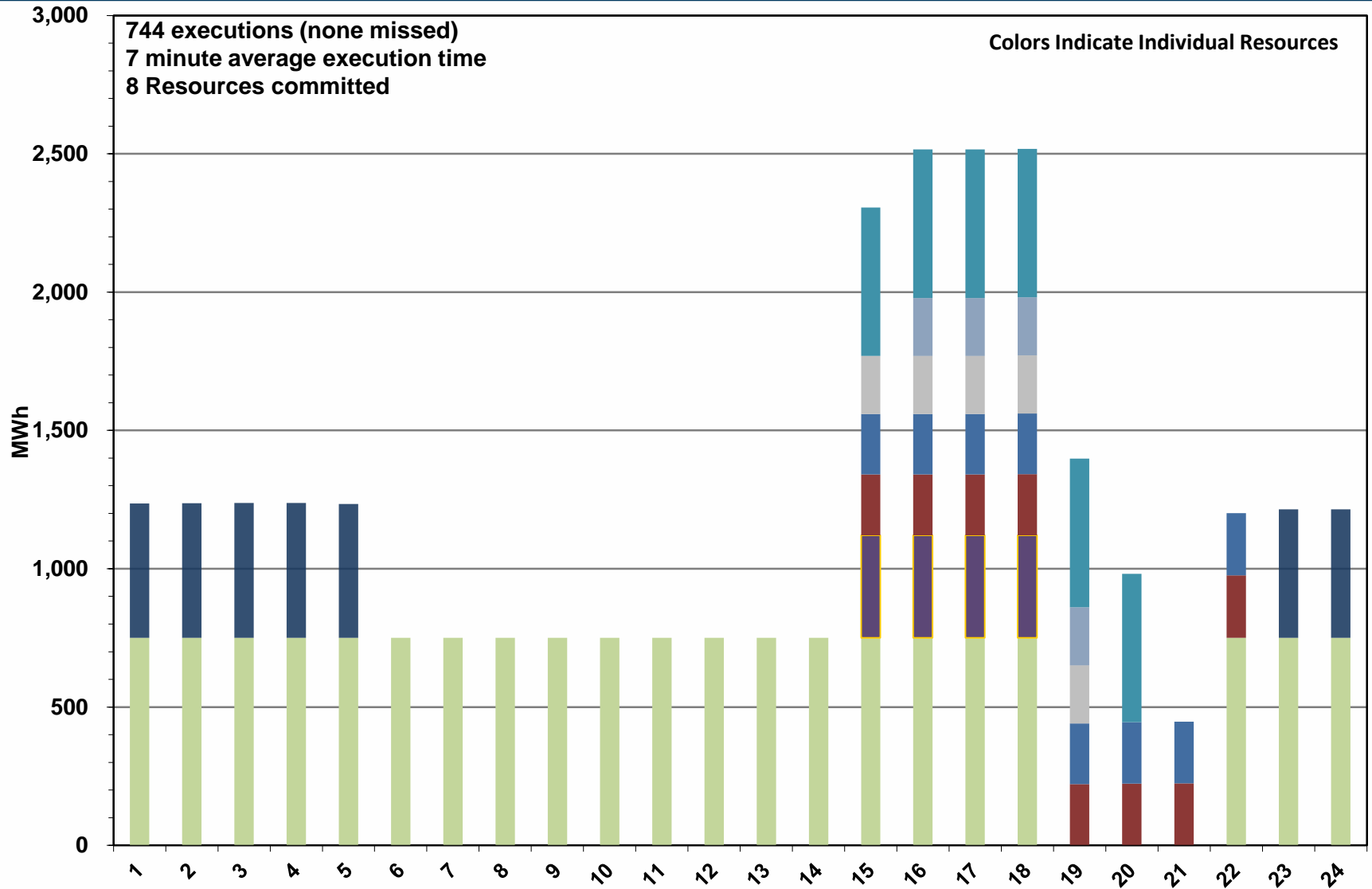
# Day-Ahead Vs Real-Time Hub Average SPP (Hourly Average) – October 2013



# DRUC Monthly Summary (Hourly Average) – October 2013



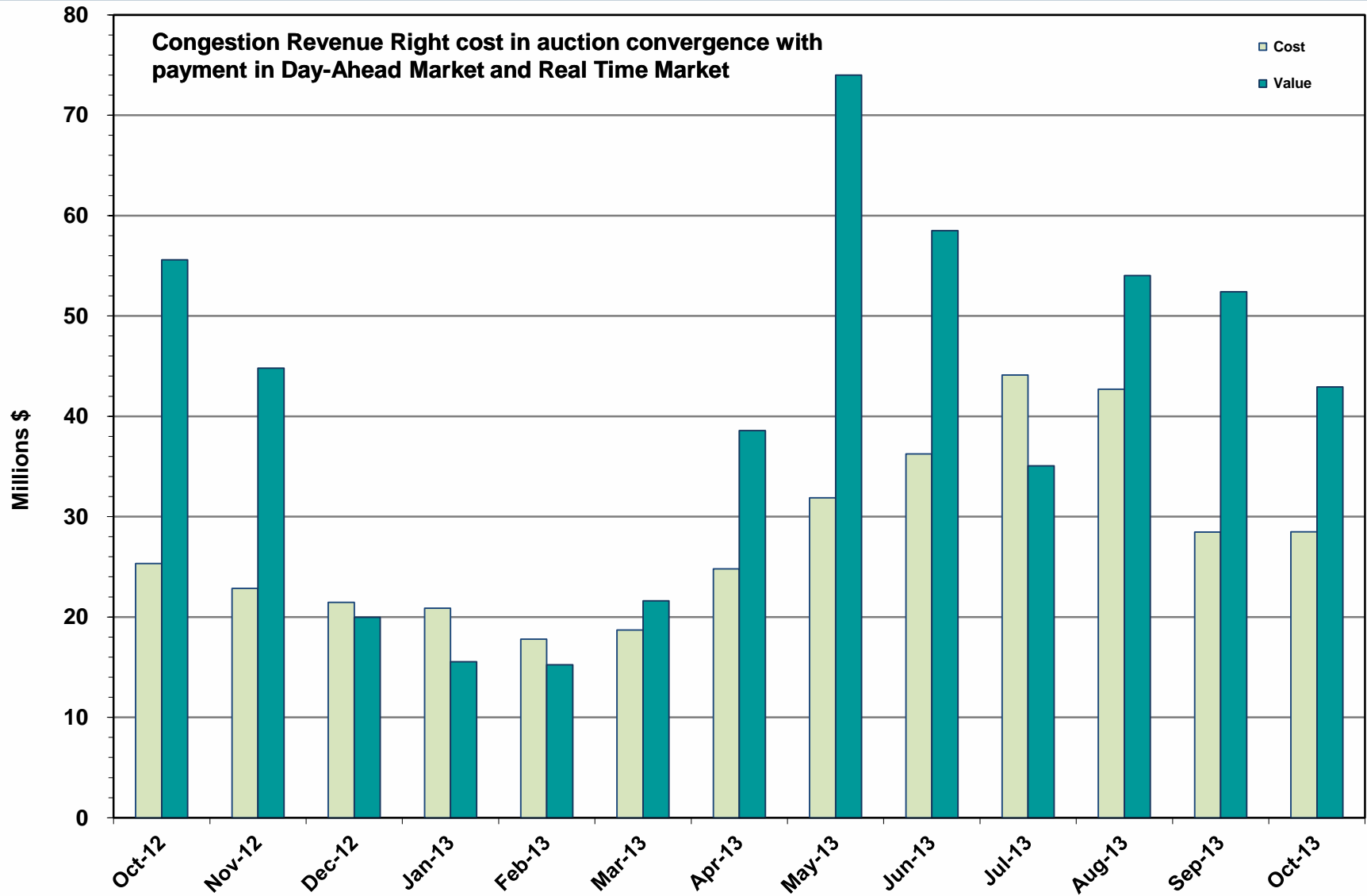
# HRUC Monthly Summary – October 2013



## Non-Spinning Reserve Service Deployment – October 2013

| Deployment Start Time | Deployment End Time | Deployment Duration (Hours) | Max Deployment (MW) | Reason |
|-----------------------|---------------------|-----------------------------|---------------------|--------|
| None                  |                     |                             |                     |        |

# CRR Price Convergence – October 2013



# ERS Procurement for **October 2013 – January 2014**

## 10-Minute ERS

|  | BH1     | BH2     | BH3     | NBH     |
|--|---------|---------|---------|---------|
| MW Procured                                | 589.095 | 582.995 | 568.470 | 510.320 |
| Average Price Per MW per Hour <sup>1</sup> | \$8.01  | \$8.37  | \$8.44  | \$7.98  |

Note: Four Generators procured with an average of 150 MW across all 4 time periods

## 30-Minute ERS Pilot

|                             |         |         |         |         |
|-----------------------------|---------|---------|---------|---------|
| MW Procured                 | 134.252 | 136.348 | 122.565 | 111.671 |
| Clearing Price <sup>2</sup> | \$8.00  | \$8.50  | \$8.80  | \$8.00  |

BH1 - Business Hours 1

BH2 - Business Hours 2

BH3 - Business Hours 3

NBH - Non-Business Hours

HE 0900 through 1300, Monday thru Friday except ERCOT Holidays

HE 1400 through 1600, Monday thru Friday except ERCOT Holidays

HE 1700 through 2000, Monday thru Friday except ERCOT Holidays

All other hours

<sup>1</sup> Procured on a Pay-AS-Offer basis

<sup>2</sup> Procured on a Clearing Price Mechanism



# Market Enhancements to Address IMM Recommendations – October 2013

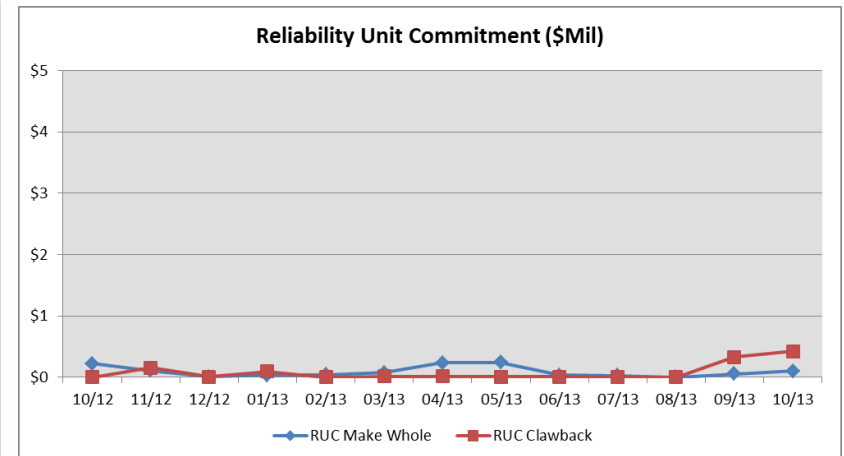
| Enhancement   | Further Information  |
|---|--|
| Adequate scarcity pricing in SCED using Operating Reserve Demand Curve: Hogan solution      | <ul style="list-style-type: none"> <li>On 9-19-20103, ERCOT submitted NPRR 568 (RT Reserve Price Adder based on ORDC) and corresponding Other Binding Document (OBD) that would implement Hogan B+ as described in the white paper</li> <li>RATF workshops were conducted on this NPRR on 10-4-2013 and 10-11-2013</li> <li>PRS approved this NPRR on 10-18-2013 and it will be discussed at November TAC and BOD meetings</li> <li>ERCOT is providing data and support for the Economically Optimal Reserve Margin (EORM) study by Brattle</li> </ul> |
| Potential solutions to prevent price reversals due to deployment of existing load resources | <ul style="list-style-type: none"> <li>NPRR 508 – Setting of Real-Time LMPs during EEA ERS/Load Resource Deployment</li> <li>At the 6-6-13 TAC meeting, the NPRR failed to get sufficient votes for approval (14 yes/13 no/2 abstain)</li> <li>NPRR 508 has a status of “rejected”</li> </ul>  |
| “Over-mitigation” in SCED   | <ul style="list-style-type: none"> <li>NPRR 520 – Real-Time Mitigation Rules and Creation of a Real-Time Constraint Competitiveness was approved by BOD 3-19-13</li> <li>MMS functionality was implemented on 6-12-13</li> <li>The last remaining part of the NPRR which provides additional informational telemetry to QSEs has been migrated in Release 4 (7-31-13)</li> <li>ERCOT is analyzing the results with stakeholders to identify any need for further improvements.</li> </ul>  |

# Reliability Services – October 2013

## Reliability Unit Commitment (RUC)

\$ in Millions

|                                       |               |
|---------------------------------------|---------------|
| RUC Make-Whole Payments               | (\$0.10)      |
| RUC Clawback Charges                  | \$0.42        |
| <b>RUC Commitment Settlement</b>      | <b>\$0.32</b> |
| RUC Capacity Short Charges            | \$0.10        |
| RUC Make-Whole Uplift                 | \$0.00        |
| <b>RUC Commitment Cost Allocation</b> | <b>\$0.10</b> |
| RUC Decommitment Payments             | \$0.00        |



RUC Cost continues to trend low.

RUC Costs were a charge of \$0.32M in October 2013, compared to:

- A charge of \$0.28 in September 2013
- A charge of \$0.22 in October 2012



# Ancillary Services – October 2013

| Capacity Services                   | \$ in Millions |
|-------------------------------------|----------------|
| Regulation Up Service               | \$3.28         |
| Regulation Down Service             | \$1.69         |
| Responsive Reserve Service          | \$22.0         |
| Non-Spinning Reserve Service        | \$4.84         |
| Black Start Service                 | \$0.52         |
| Voltage Services - Reactive Power   | \$0.0          |
| Voltage Services - Lost Opportunity | \$0.0          |
| <b>Total Capacity Service</b>       | <b>\$32.33</b> |

Capacity Services costs were up from last month and from September 2012.

October 2013 cost was \$32.33M, compared to:

- A charge of \$23.94M in September 2013
- A charge of \$23.94M in October 2012

# Energy Settlement – October 2013

| Day-Ahead Market Energy Settlement   | \$ in Millions |
|--------------------------------------|----------------|
| Energy Purchases                     | \$498.39       |
| Point to Point Obligation Purchases  | \$33.17        |
| RMR Day-Ahead Revenue                | \$0.00         |
| Energy Sales                         | (\$483.57)     |
| <b>Day-Ahead Congestion Rent</b>     | \$47.98        |
|                                      |                |
| Day-Ahead Market Make-Whole Payments | (\$0.15)       |

Day-Ahead and Real-Time energy settlement decreased from last month.

Day-Ahead and Real-Time energy settlement increased from October 2012.

| Real-Time Market Energy Settlement             | \$ in Millions |
|--|----------------|
| Energy Imbalance at a Resource Node            | (\$547.15)     |
| Energy Imbalance at a Load Zone                | \$779.96       |
| Energy Imbalance at a Hub                      | (\$198.56)     |
| Real Time Congestion from Self Schedules       | \$0.18         |
| Block Load Transfers and DC Ties               | (\$ 7.39)      |
| <b>Impact to Revenue Neutrality</b>            | \$26.68        |
|  |                |
| Emergency Energy Payments                      | (\$0.17)       |
| Base Point Deviation Charges                   | \$0.28         |
|  |                |
| Real-Time Metered Generation (MWh in millions) | 25.59          |

# Congestion Revenue Rights (CRR) – October 2013

| <b>Auction Disbursements</b>                    | <b>\$ in Millions</b> |
|---|-----------------------|
| Annual Auction                                  | (\$18.03)             |
| Monthly Auction                                 | (\$7.63)              |
| <b>Total Auction Revenue</b>                    | <b>(\$25.66)</b>      |
| Day-Ahead CRR Settlement                        | (\$42.35)             |
| Day-Ahead CRR Short-Charges                     | \$0.48                |
| Day-Ahead CRR Short-Charges Refunded            | (\$0.48)              |
| Real-Time CRR Settlement                        | (\$0.00)              |
| Real-Time CRR Short-Charges                     | \$0.00                |
| Real-Time CRR Short-Charges Refunded            | (\$0.00)              |
| <b>Total CRR Proceeds</b>                       | <b>(\$42.35)</b>      |
| Day-Ahead Point to Point Obligations Settlement | \$33.17               |
| Real-Time Point to Point Obligation Settlement  | (\$30.36)             |
| <b>Net Point to Point Obligation Settlement</b> | <b>\$2.80</b>         |

Congestion Revenue Rights were fully funded and excess funds were available for distribution to load.

Distribution of Balancing Account funds to load for October 2013 was \$5.67, compared to:

- \$0 M in September 2013
- \$0 M in October 2012

Point to Point Obligations settled with a net charge of \$2.80M compared to a net gain of \$4.19M last month.

# Revenue Neutrality – October 2013

## Revenue Neutrality Settlement

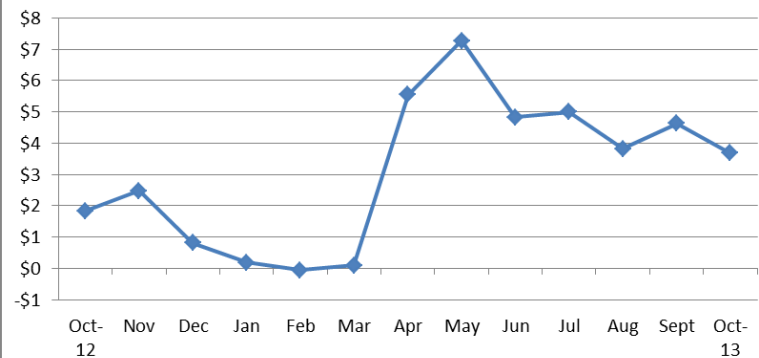
|   | \$ in Millions |
|---|----------------|
| Real-Time Point to Point Obligation Settlement                      | (\$30.36)      |
| Real-Time Point to Point Options and Options with Refund Settlement | (\$0.00)       |
| Real-Time Energy Imbalance Settlement                               | \$32.43        |
| Real-Time Congestion from Self-Schedules Settlement                 | (\$0.18)       |
| DC Tie & Block Load Transfer Settlement                             | (\$7.39)       |
| <b>Charge to Load</b>   | <b>\$3.68</b>  |

Revenue Neutrality charges to load decreased compared to last month and increased to October 2012.

October 2013 was a charge of \$3.68M, compared to:

- \$ 4.63M charge in September 2013
- \$1.84M charge in October 2012

Revenue Neutrality Uplift (\$Mil)



# Net Uplift to Load – October 2013

## Market-Based Uplifts

\$ in Millions

|   |           |
|---|-----------|
| CRR Auction Revenue Disbursement Settlement | (\$25.66) |
| Balancing Account Proceeds Settlement       | (\$5.67)  |
| Net Reliability Unit Commitment Settlement  | (\$0.32)  |
| Ancillary Services Settlement               | \$32.33   |
| Reliability Must Run Services Settlement    | \$0.0     |
| Reliability Must Run for Capacity           | \$0.0     |
| Real-Time Revenue Neutrality Settlement     | \$3.68    |
| Emergency Energy Settlement                 | \$0.17    |
| Base Point Deviation Settlement             | (\$0.28)  |

**Total \$4.25**

## Fee Uplifts

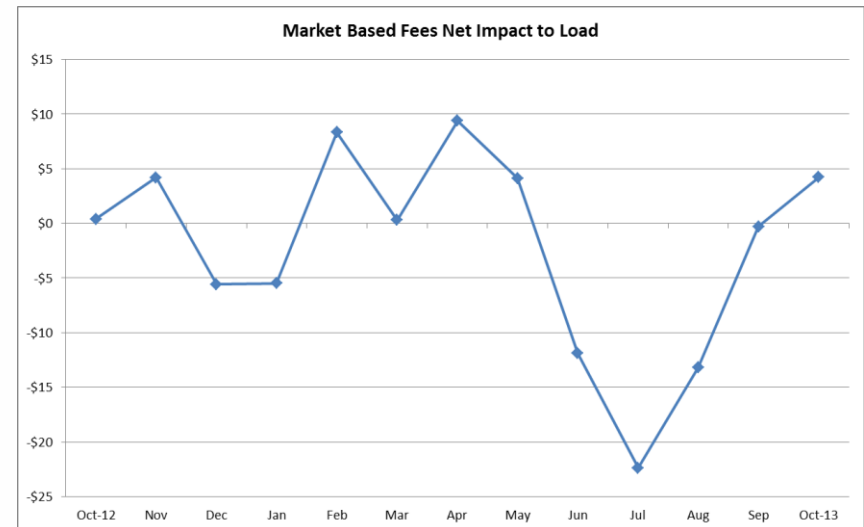
|                                     |         |
|-------------------------------------|---------|
| ERCOT Administrative Fee Settlement | \$10.77 |
|-------------------------------------|---------|

**Net Uplift Charge to Load \$15.02**

Net uplift to Load increased from last month and from October of 2012

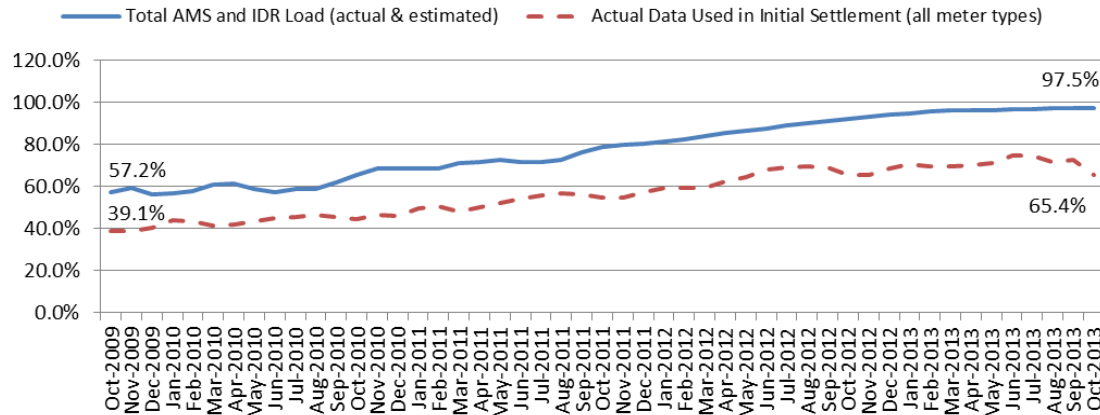
October 2013 was a charge of \$15.02M, compared to:

- A charge of \$12.75M in September 2013
- A charge of \$10.93M in October 2012



# Advanced Meter Settlement Impacts – October 2013

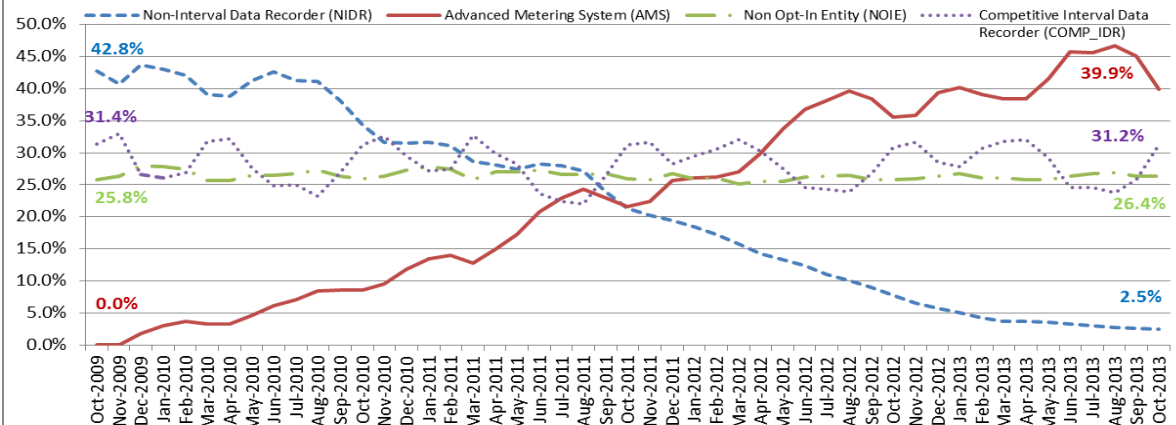
Percent Actual/Percent Interval Data Recorder (IDR)



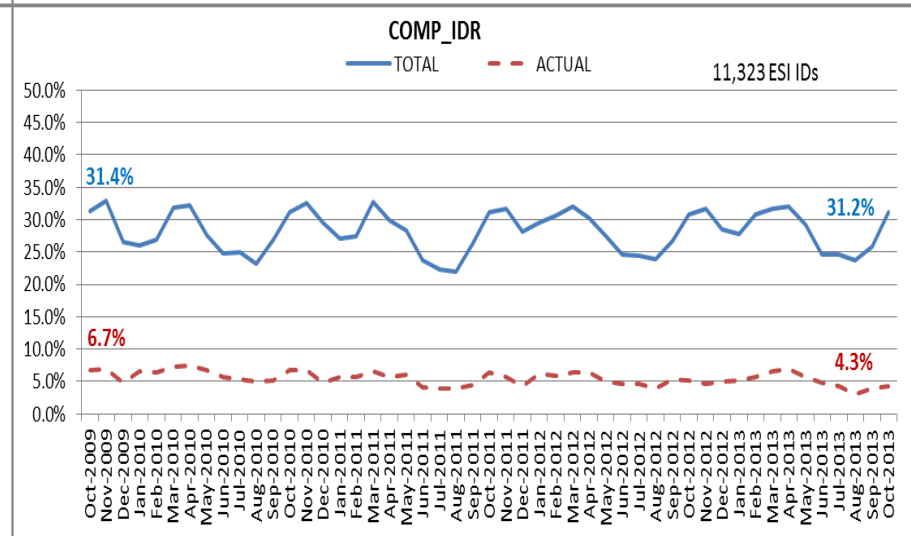
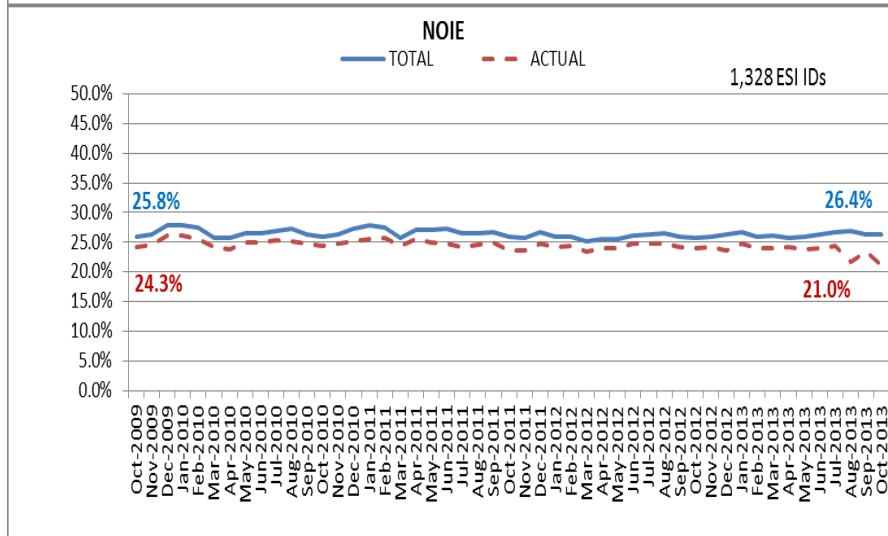
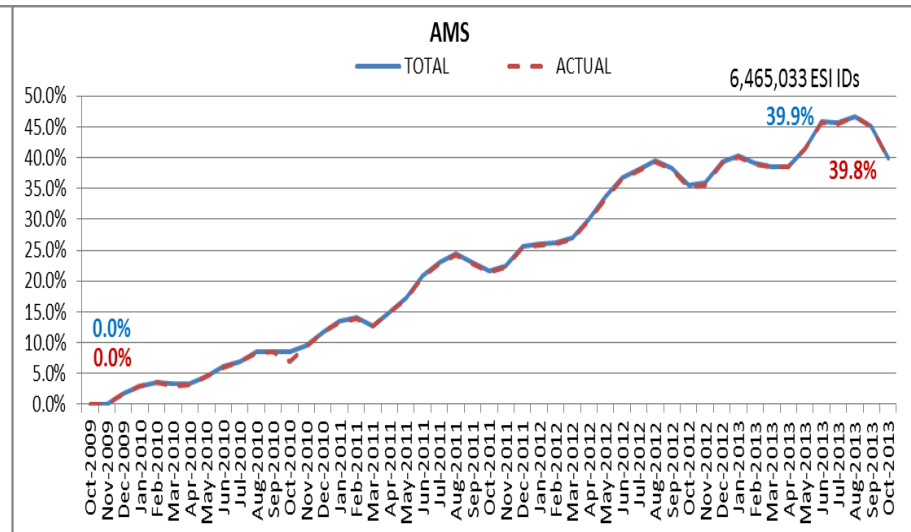
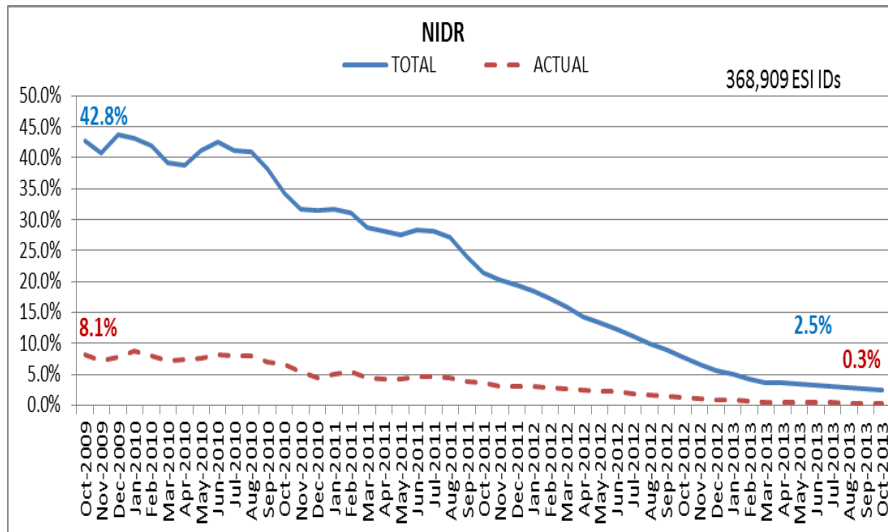
October 2013: At month end, settling 6.4M ESIIDs using Advanced Meter data.

October 2013: 97.5% of the load in ERCOT is settled with 15-min interval data (AMS, Competitive IDR, and NOIE IDR).

Percent of Load by Meter Type



# ERCOT Wide Load Volumes by Meter Type – INITIAL Settlement – October 2013



# Retail Transaction Volumes – Summary – October 2013

| Transaction Type                    | Year-To-Date      |                  | Transactions Completed |                |
|-------------------------------------|-------------------|------------------|------------------------|----------------|
|                                     | October 2013      | October 2012     | October 2013           | October 2012   |
| Switches                            | 837,244           | 815,394          | 124,970                | 65,798         |
| Acquisition                         | 134               | 0                | 0                      | 0              |
| Move - Ins                          | 2,001,546         | 1,909,610        | 201,377                | 202,300        |
| Move - Outs                         | 977,433           | 944,803          | 98,301                 | 101,881        |
| Continuous Service Agreements (CSA) | 514,109           | 607,106          | 127,836                | 51,742         |
| Mass Transitions                    | 0                 | 5,518            | 0                      | 0              |
| <b>Total</b>                        | <b>4,330,466</b>  | <b>4,282,431</b> | <b>552,484</b>         | <b>421,721</b> |
|                                     |                   |                  |                        |                |
| <b>Total since June 1, 2001</b>     | <b>54,221,992</b> |                  |                        |                |

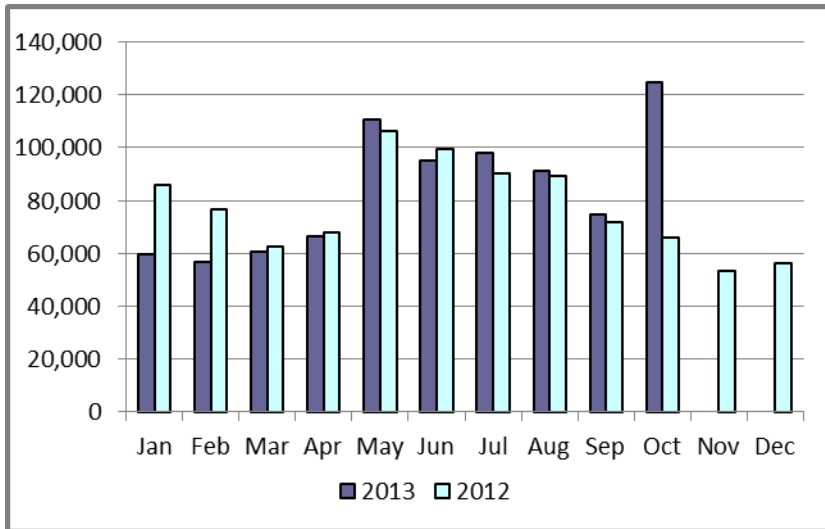
**Note:** During 10/28/2013 – 10/30/2013 ERCOT retail systems experienced performance degradations that primarily impacted the processing of 867 transactions. Processing for approximately 7% of the 7.9M “867 – Meter Read” transactions did not meet the performance requirements.



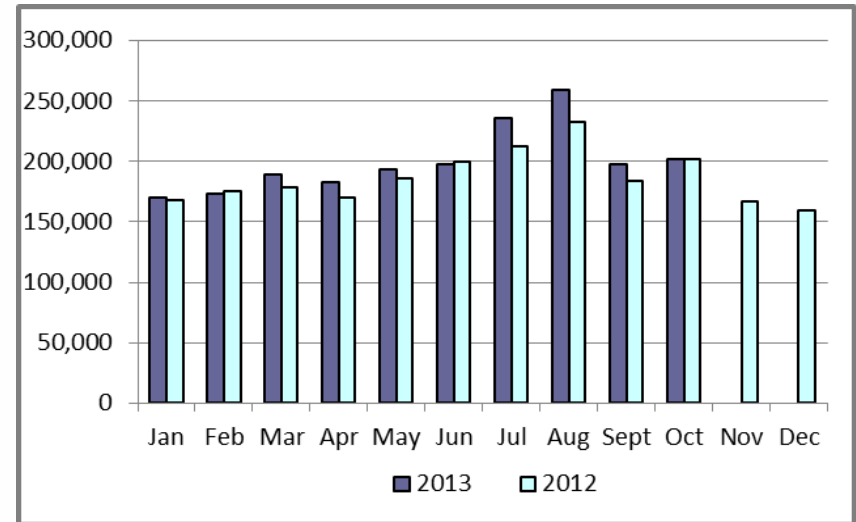


# Retail Transaction Volumes – Summary – October 2013

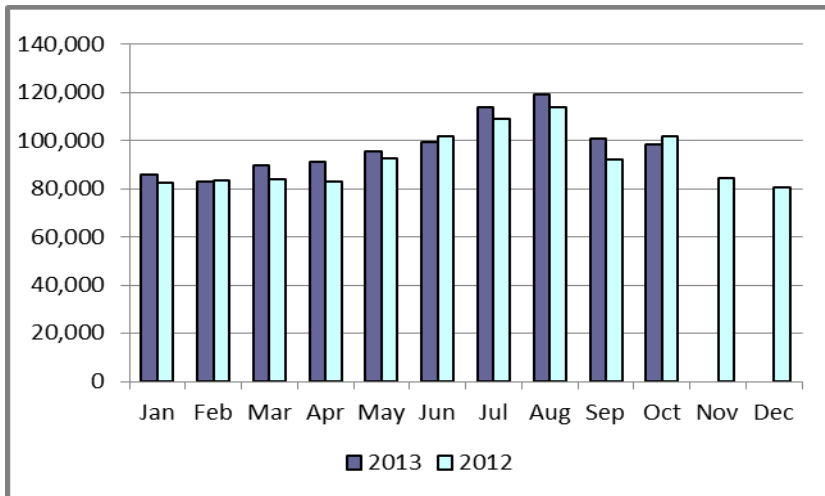
## Switches/Acquisitions



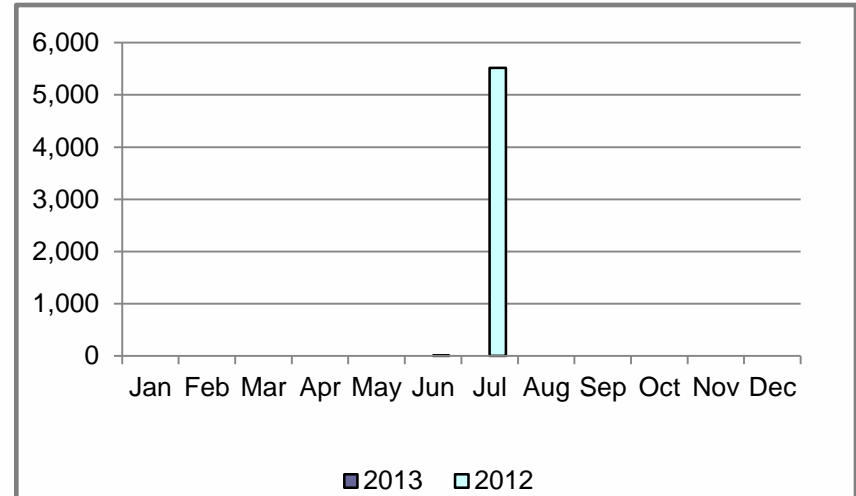
## Move-Ins



## Move-Outs

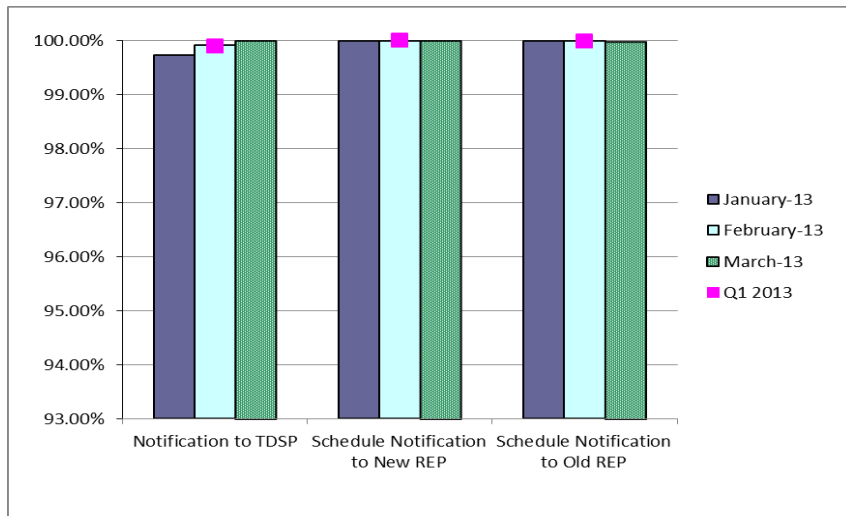


## Mass Transition

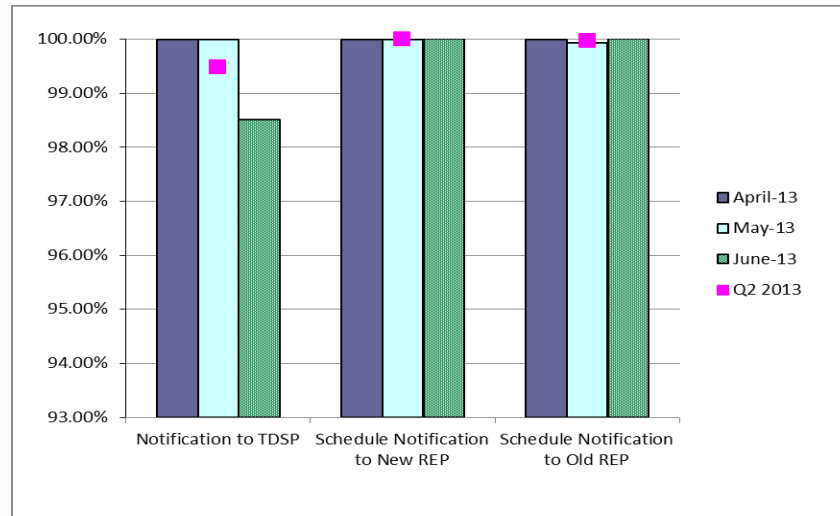


# Retail Performance Measures – Switch – October 2013

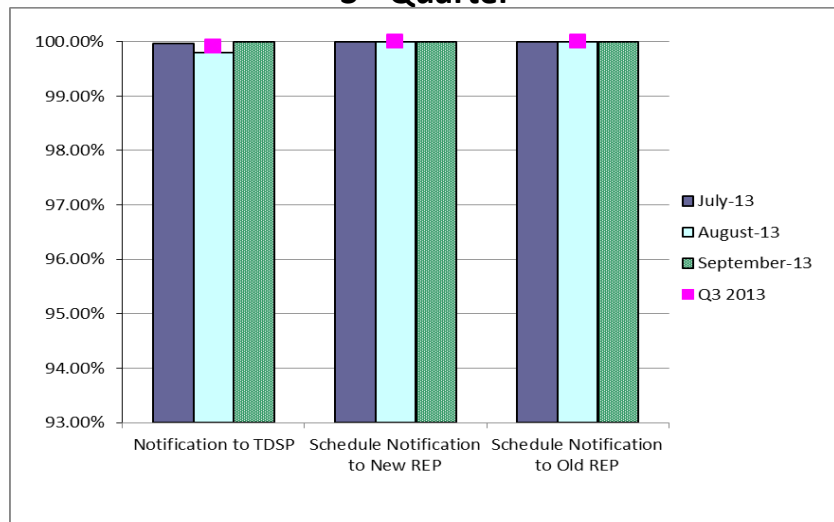
## 1<sup>st</sup> Quarter



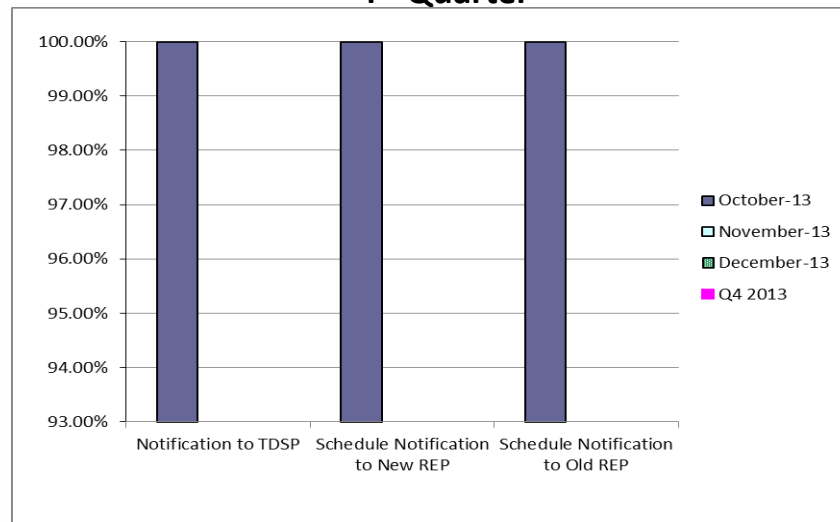
## 2<sup>nd</sup> Quarter



## 3<sup>rd</sup> Quarter

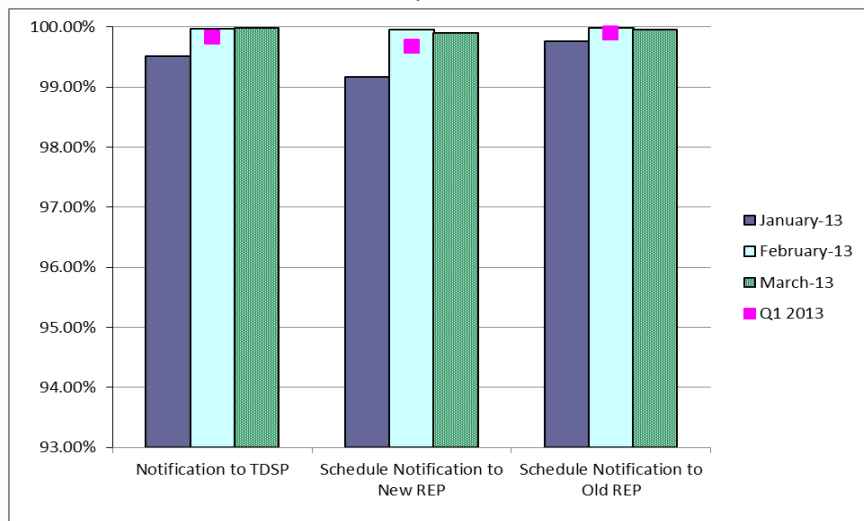


## 4<sup>th</sup> Quarter

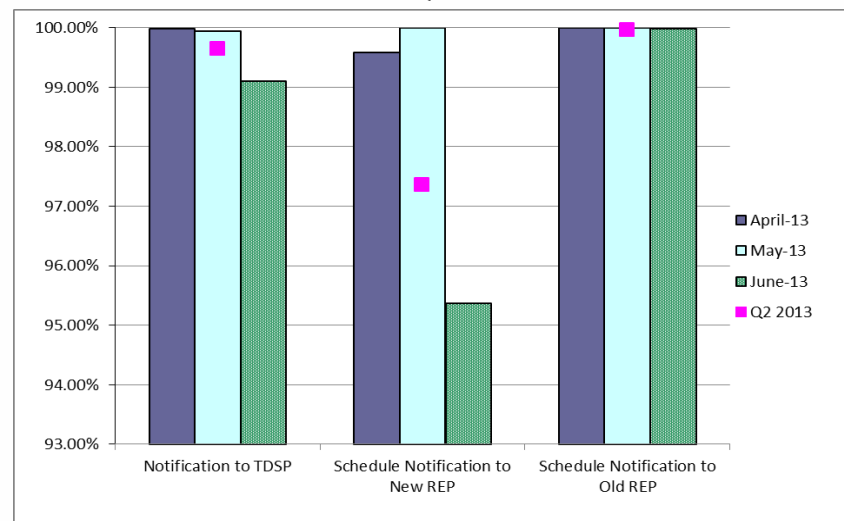


# Retail Performance Measures (Same Day Move-In) – October 2013

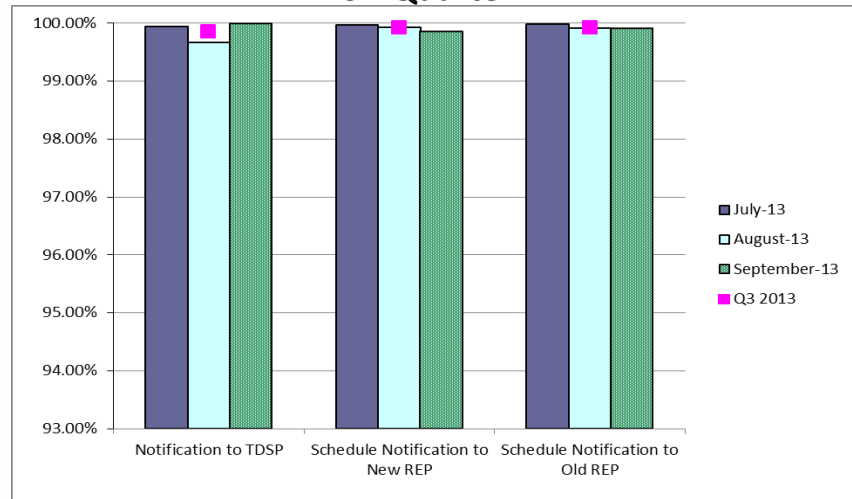
## 1<sup>st</sup> Quarter



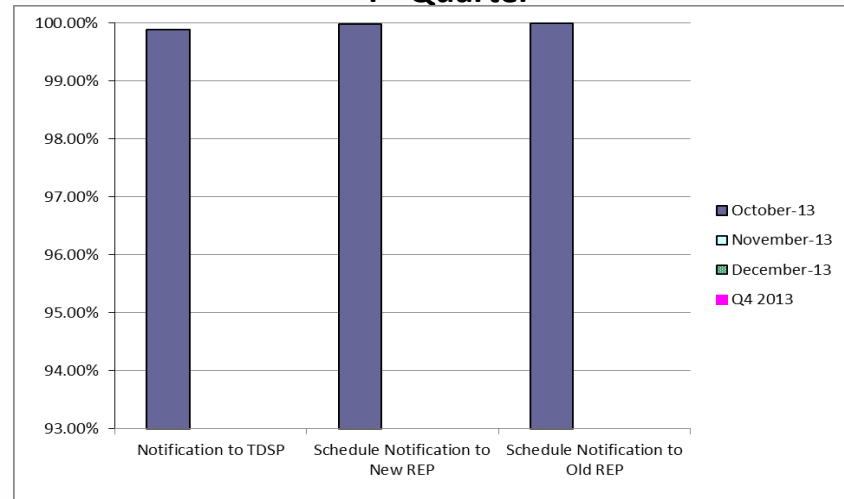
## 2<sup>nd</sup> Quarter



## 3<sup>rd</sup> Quarter

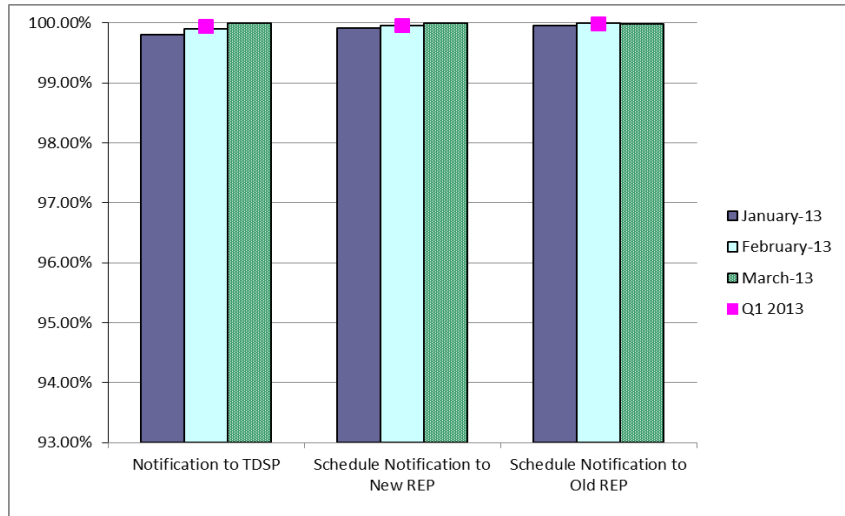


## 4<sup>th</sup> Quarter

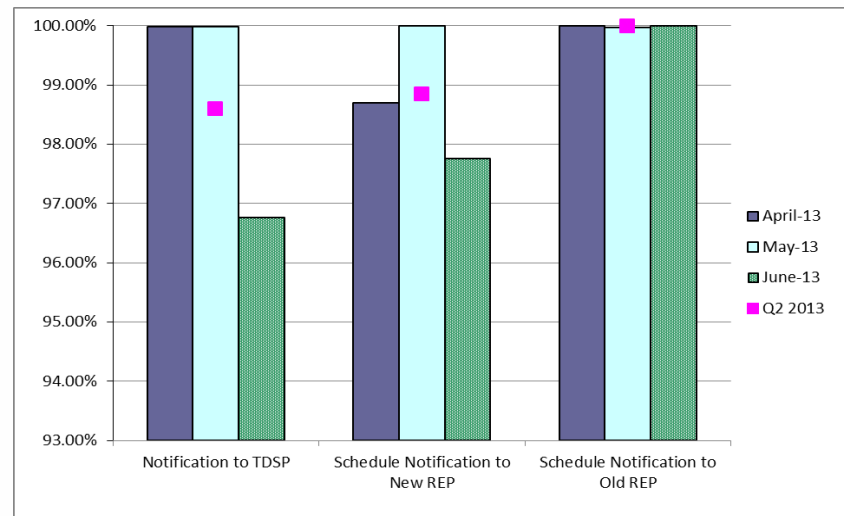


# Retail Performance Measures (Standard Move-In) – October 2013

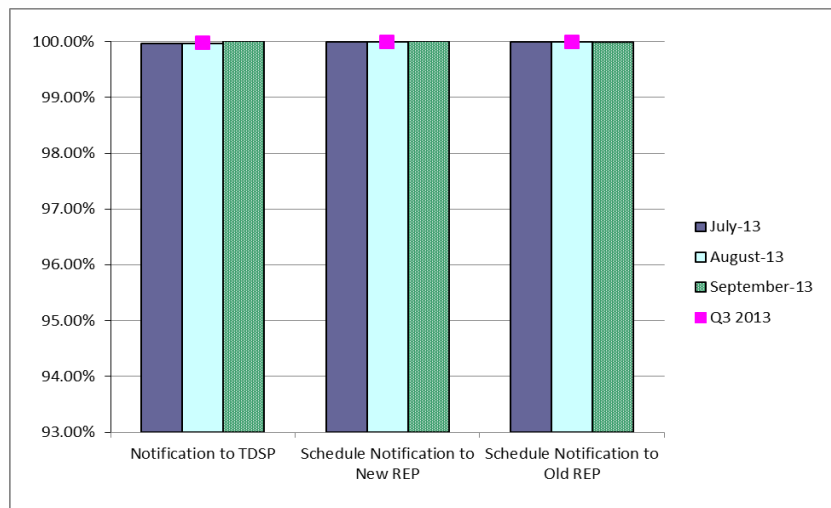
## 1<sup>st</sup> Quarter



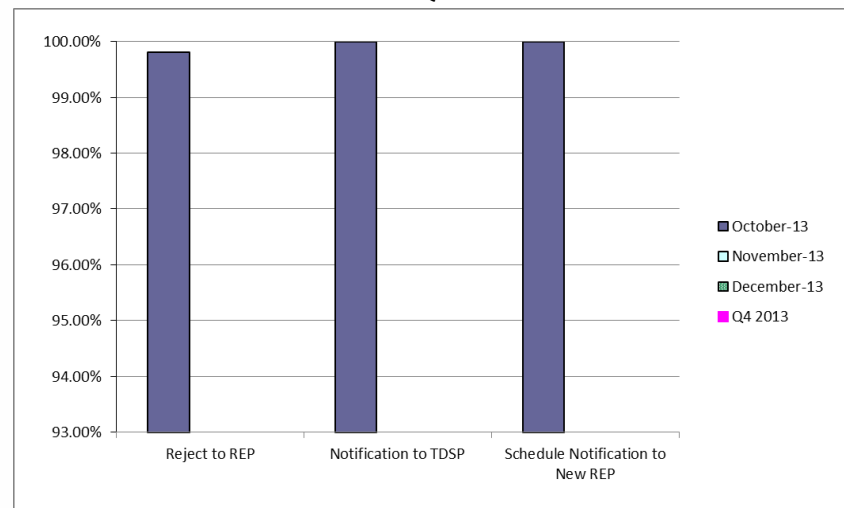
## 2<sup>nd</sup> Quarter



## 3<sup>rd</sup> Quarter



## 4<sup>th</sup> Quarter



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# **Projects Report**

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# ERCOT Portfolio Stoplight Report (as of 11/11/2013)

| PROJECTS IN FLIGHT (Count = 55) Sorted by Phase / Project Num |   |              |                                |                       |                        |                        |                 | \$ 15,715,351 | \$ 13,939,833 | 11%           | \$ 40,952,427 | \$ 38,646,812 | 5%             |
|---|---|--------------|--------------------------------|-----------------------|------------------------|------------------------|-----------------|---------------|---------------|---------------|---------------|---------------|----------------|
| Project Number  | Projects in Initiation Phase  | Phase        | Schedule dates as of 11/5/2013 |                       |                        |                        |                 |               |               | 2013 Variance |               |               | Total Variance |
| 123-01  | ERCOT Native Load Calculation   | Initiation   |                                |                       |                        |                        |                 |               |               | 0%            |               |               | 0%             |
| 122-01  | Infoblox DNS/DHCP   | Initiation   |                                |                       |                        |                        |                 |               |               | 0%            |               |               | 0%             |
| Various   | 2014 Market System Enhancements   | Initiation   |                                |                       |                        |                        |                 |               |               | 0%            |               |               | 21%            |
| 074-02  | Mobile Device Management  | Initiation   |                                |                       |                        |                        |                 |               |               | 0%            |               |               | 0%             |
| 115-01  | Intrusion Prevention System   | Initiation   |                                |                       |                        |                        |                 |               |               | 0%            |               |               | 0%             |
| 118-01  | Mitigation Plan RTCA Enhancements   | Initiation   |                                |                       |                        |                        |                 |               |               | 0%            |               |               | 0%             |
| 119-01  | CREZ Voltage Control and Coordination   | Initiation   |                                |                       |                        |                        |                 |               |               | 0%            |               |               | 0%             |
| 120-01  | IT Production Hardening   | Initiation   |                                |                       |                        |                        |                 |               |               | 0%            |               |               | 0%             |
| 121-01  | 2013/2014 Network Refresh   | Initiation   |                                |                       |                        |                        |                 |               |               | 0%            |               |               | 0%             |
| NPRR240   | Proxy Energy Offer Curve  | Initiation   |                                |                       |                        |                        |                 |               |               | 0%            |               |               | 0%             |
| NPRR495   | Changes to Ancillary Services Capacity Monitor  | Initiation   |                                |                       |                        |                        |                 |               |               | 0%            |               |               | 0%             |
| NPRR532   | Performance Measurement and Verification and Telemetry Requirements for Load Resources Providing Non-Spin | Initiation   |                                |                       |                        |                        |                 |               |               | 0%            |               |               | 0%             |
| NPRR555   | Load Resource Participation in Security-Constrained Economic Dispatch                                     | Initiation   |                                |                       |                        |                        |                 |               |               | 0%            |               |               | 0%             |
| OBD   | Setting the Shadow Price Caps and Power Balance Penalties in Security-Constrained Economic Dispatch       | Initiation   |                                |                       |                        |                        |                 |               |               | 0%            |               |               | 0%             |
|   |   |              |                                |                       |                        |                        |                 |               |               |               |               |               |                |
| Project Number  | Projects in Planning Phase  | Phase        | Baseline Phase Start           | Baseline Phase Finish | Scheduled Go-Live Date | Scheduled Phase Finish | Schedule Status |               |               | 2013 Variance |               |               | Total Variance |
| 052-01  | EMS Upgrade   | Planning Ph2 | 8/7/2013                       | 6/30/2014             | TBD                    | 6/30/2014              | 0%              |               |               | 12%           |               |               | 0%             |
| 065-01  | NMMS Upgrade  | Planning     | 5/1/2013                       | 3/1/2014              | TBD                    | 2/26/2014              | 0%              |               |               | 4%            |               |               | 7%             |
| 089-01  | Information Technology Change Management  | Planning     | 4/10/2013                      | 4/2/2014              | TBD                    | 4/3/2014               | 0%              |               |               | 0%            |               |               | 10%            |
| 097-01  | ABB MMS OS Technology Refresh   | Planning     | 5/29/2013                      | 2/4/2014              | TBD                    | 2/4/2014               | 0%              |               |               | 53%           |               |               | 65%            |
| 104-01  | Disaster Recovery: S&B, RTL, MDT  | Planning     | 5/15/2013                      | 11/15/2013            | TBD                    | 11/19/2013             | -2%             |               |               | 2%            |               |               | -3%            |
| 106-01  | MP Online Data Entry - Ph 1   | Planning     | 10/9/2013                      | 3/5/2014              | TBD                    | 3/5/2014               | 0%              |               |               | 0%            |               |               | 0%             |
| 107-01  | IBM AIX Operating System Upgrades   | Planning     | 10/16/2013                     | 11/20/2013            | TBD                    | 11/20/2013             | 0%              |               |               | 9%            |               |               | 0%             |
| 108-01  | Alstom Load Forecasting Upgrade   | Planning     | 9/11/2013                      | 11/27/2013            | TBD                    | 11/20/2013             | 9%              |               |               | 51%           |               |               | 0%             |
| 110-01  | Taylor Control Room Upgrade   | Planning     | 10/9/2013                      | 2/19/2014             | TBD                    | 2/19/2014              | 0%              |               |               | 40%           |               |               | 2%             |
| 113-01  | Dev Hardware Refresh and Virtualization Expansion   | Planning     | 9/11/2013                      | 11/6/2013             | TBD                    | 12/4/2013              | -34%            |               |               | 49%           |               |               | 0%             |
| 114-01  | Lawson Security   | Planning     | 10/16/2013                     | 1/29/2014             | TBD                    | 1/29/2014              | 0%              |               |               | 52%           |               |               | 2%             |
| 116-01  | Collage Replacement   | Planning     | 10/23/2013                     | 2/5/2014              | TBD                    | 1/30/2014              | 5%              |               |               | 0%            |               |               | 0%             |
| NOGRR105  | Generation Resource Frequency Response Test Procedure   | Planning     | 10/30/2013                     | 11/27/2013            | TBD                    | 11/27/2013             | 0%              |               |               | 0%            |               |               | 0%             |
| SCR756  | MarkeTrak Enhancements - Remaining SCR756 Items   | Planning     | 10/16/2013                     | 1/15/2014             | TBD                    | 1/15/2014              | 0%              |               |               | -3%           |               |               | 3%             |



# ERCOT Portfolio Stoplight Report (as of 11/11/2013)

| Project Number | Projects in Execution Phase   | Phase     | Baseline Phase Start           | Baseline Go-Live Target | Scheduled Go-Live Date | Scheduled Phase Finish           | Schedule Status |  |  | 2013 Variance |  |   | Total Variance |
|----------------|---|-----------|--------------------------------|-------------------------|------------------------|----------------------------------|-----------------|--|--|---------------|--|---|----------------|
| 016-01         | ADP-IDM Interface   | Execution | 11/6/2013                      | 3/13/2014               | 3/13/2014              | 3/13/2014                        | 0%              |  |  | 8%            |  |   | 10%            |
| 017-01         | Oracle 11g Upgrade  | Execution | 10/10/2012                     | 4/2/2014                | 3/31/2014              | 3/31/2014                        | 0%              |  |  | 0%            |  |   | 0%             |
| 038-01         | Macomber Map NERC SA/Compliance Enhancements                            | Execution | 9/19/2012                      | 12/7/2012               | 12/4/2013              | 1/3/2014                         | 1 -458%         |  |  | 1 -27%        |  | 1 | -8%            |
| 047-01         | CMSDK/MIR Replacement   | Execution | 4/24/2013                      | 12/8/2013               | 12/11/2013             | 3/12/2014                        | -1%             |  |  | 3 -22%        |  | 3 | -18%           |
| 057-01         | EPS Metering DB Redesign  | Execution | 4/17/2013                      | 9/6/2013                | 7/28/2014              | 8/7/2014                         | 3 -228%         |  |  | 3 -34%        |  | 3 | -138%          |
| 059-01         | Security Information and Event Management (SIEM) Upgrade                | Execution | 5/8/2013                       | 11/15/2013              | 11/15/2013             | 1/29/2014                        | 0%              |  |  | 56%           |  |   | 26%            |
| 066-01         | Planning Site Transition to MIS   | Execution | 10/16/2013                     | 5/2/2014                | 5/2/2014               | 7/2/2014                         | 0%              |  |  | 7%            |  |   | 5%             |
| 075-01         | Operator Data Display   | Execution | 4/10/2013                      | 12/8/2013               | 12/8/2013              | 12/12/2013                       | 0%              |  |  | 41%           |  |   | 42%            |
| 077-01         | Contract Lifecycle Management   | Execution | 9/11/2013                      | 5/5/2014                | 5/5/2014               | 7/23/2014                        | 0%              |  |  | 0%            |  |   | 0%             |
| 083-01         | Centralized Application Log Management                                  | Execution | 8/28/2013                      | 5/7/2014                | 5/7/2014               | 5/21/2014                        | 0%              |  |  | 6%            |  |   | 2%             |
| 088-0x         | Capital Efficiencies and Enhancements - 2013                            | Execution | 8/16/2012                      | 12/31/2013              | 12/31/2013             | 12/31/2013                       | 0%              |  |  | 0%            |  |   | 0%             |
| 111-01         | Quality Center Upgrade  | Execution | 10/30/2013                     | 11/21/2013              | 11/21/2013             | 12/11/2013                       | 0%              |  |  | 20%           |  |   | 20%            |
| 10052_01       | Settlement System Upgrade   | Execution | 1/25/2012                      | 10/10/2014              | 10/10/2014             | 3/3/2015                         | 0%              |  |  | 12%           |  |   | -3%            |
| 2013 PC        | Program Control - 2013  | Execution | 8/16/2012                      | 12/31/2013              | 12/31/2013             | 12/31/2013                       | 0%              |  |  | 0%            |  |   | 0%             |
| 99913          | Minor Cap - 2013  | Execution | 1/1/2013                       | 12/31/2013              | 12/31/2013             | 12/31/2013                       | 0%              |  |  | 5%            |  |   | 5%             |
| NPRR407        | Credit Monitoring Posting Requirements - CRR Portion                    | Execution | 10/23/2013                     | 12/13/2014              | 12/13/2014             | 12/31/2014                       | 0%              |  |  |               |  |   |                |
| NPRR416        | Removal of the RUC Clawback Charge for Resources Other than RMR Units   | Execution | 4/10/2013                      | 9/27/2013               | 9/26/2013              | 10/24/2013                       | 0%              |  |  | 21%           |  |   | 20%            |
| NPRR425        | Creation of a WGR Group for GREDP and Base Point Deviation Evaluation   | Execution | 8/21/2013                      | 2/28/2014               | 3/3/2014               | 3/31/2014                        | -1%             |  |  | 39%           |  |   | 34%            |
| NPRR476        | Market Submitted Energy Offer Curves Disclosures                        | Execution | 8/28/2013                      | 12/11/2013              | 12/11/2013             | 1/8/2014                         | 0%              |  |  | 18%           |  |   | 17%            |
| NPRR484        | Revisions to Congestion Revenue Rights Credit Calculations and Payments | Execution | 7/17/2013                      | 10/21/2013              | 10/21/2013             | 12/31/2013                       | 0%              |  |  | 19%           |  |   | -2%            |
| NPRR485        | Clarification for Fuel Adder Provisions                                 | Execution | 10/23/2013                     | 2/28/2014               | 2/28/2014              | 3/31/2014                        | 0%              |  |  |               |  |   |                |
| NPRR492        | Addition of System Lambda Information                                   | Execution | 7/24/2013                      | 12/13/2013              | 12/13/2013             | 12/20/2013                       | 0%              |  |  |               |  |   |                |
| Project Number | Projects in Stabilization   | Phase     | Baseline Execution Phase Start | Baseline Go-Live Target | Actual Go-Live Date    | Scheduled Execution Phase Finish | Schedule Status |  |  | 2013 Variance |  |   | Total Variance |
| 055-01         | Siebel Upgrade 8.x  | Execution | 3/13/2013                      | 7/28/2013               | 9/29/2013              | 10/30/2013                       | 3 -45%          |  |  | 3 -31%        |  | 3 | -21%           |
| 081-01         | Additional Resource Data for Outage Scheduler                           | Execution | 5/29/2013                      | 9/26/2013               | 9/24/2013              | 11/6/2013                        | 1%              |  |  | 38%           |  |   | 38%            |
| 095-01         | Mobile Application Enhancement  | Execution | 5/8/2013                       | 9/5/2013                | 8/16/2013              | 10/21/2013                       | 16%             |  |  | 3 -21%        |  | 3 | -21%           |
| 109-01         | OTS Forum Hotline   | Execution | 10/2/2013                      | 11/4/2013               | 11/4/2013              | 12/5/2013                        | 0%              |  |  | 0%            |  |   | 0%             |
| NOGRR101       | Market Notice for DC-TIE Outage Information                             | Execution | 7/24/2013                      | 9/27/2013               | 9/27/2013              | 10/30/2013                       | 0%              |  |  |               |  |   |                |





# ERCOT Portfolio Stoplight Report (as of 11/11/2013)

| Project Number   | Projects On Hold  | Phase       | Forecast Start Date | Baseline Phase Finish | Scheduled Go-Live Date | Scheduled Phase Finish | Schedule Status | Sum of 2013 Budgets | 2013 Forecast Spend | 2013 Variance | Sum of Total Budgets | Total Forecast Spend | Total Variance |
|--|---|-------------|---------------------|-----------------------|------------------------|------------------------|-----------------|---------------------|---------------------|---------------|----------------------|----------------------|----------------|
| PROJECTS ON HOLD (Count = 3) Sorted by Project Number      |   |             |                     |                       |                        |                        |                 | \$ 152,497          | \$ 146,808          |               | \$ 233,082           | \$ 155,263           |                |
| 101-01   | Emergency Notification System Hardware Refresh  | On Hold     | 5/8/2013            | 8/22/2013             | TBD                    | TBD                    | 4               | \$63,404            | \$69,499            | 3 -9%         | \$63,404             | \$80,199             | 3 -26%         |
| NPRR153  | Generation Resource Fixed Quantity Block Offer  | On Hold     | 4/10/2013           | 5/24/2013             | TBD                    | TBD                    | 4               | \$13,835            | \$2,051             | 85%           | \$13,835             | \$2,051              | 85%            |
| NPRR327  | State Estimator Data Redaction Methodology  | On Hold     | 12/5/2012           | 2/12/2013             | TBD                    | TBD                    | 4               | \$75,258            | \$75,258            | 0%            | \$155,843            | \$73,013             | 53%            |
|  |   |             |                     |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
|  |   |             |                     |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
| Project Number   | Projects Not Yet Started  | Phase       | Forecast Start Date |                       |                        |                        |                 | Sum of 2013 Budgets | 2013 Forecast Spend | 2013 Variance | Sum of Total Budgets | Total Forecast Spend | Total Variance |
| PROJECTS NOT YET STARTED (Count = 15) Sorted by Start Date |   |             |                     |                       |                        |                        |                 | \$ 75,382           | \$ 20,832           |               | \$ 3,150,664         | \$ 3,113,144         |                |
| SCR769   | CRRAH Digital Certificate New Role for Read Only Access                                     | Not Started | Nov 2013            |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
| SCR772   | New Extract for Five Minute Interval Settlement Data  | Not Started | Nov 2013            |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
| NPRR439  | Updating a Counter-Party's Available Credit Limit for Current Day DAM                       | Not Started | Jan 2014            |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
| TBD  | SQL Server 2012 Upgrade / Cluster Consolidation   | Not Started | Jan 2014            |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
| TBD  | Symposium Call Center Replacement   | Not Started | Jan 2014            |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
| TBD  | Voice Over IP (VOIP) Replacement for PBX  | Not Started | Jan 2014            |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
| TBD  | Enterprise Vault Upgrade  | Not Started | Apr 2014            |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
| TBD  | Email Redundancy  | Not Started | Apr 2014            |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
| TBD  | Net Backup Architecture Redesign  | Not Started | Apr 2014            |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
| NPRR272  | Definition and Participation of Quick Start Generation Resources                            | Not Started | Jul 2014            |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
| SCR771   | ERCOT System Change Allowing Independent Master QSE to Represent Split Generation Resources | Not Started | Jul 2014            |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
| NPRR256  | Sync with PRR787, Add Non-Compliance Language to QSE Performance Standards                  | Not Started | Aug 2014            |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
| NOGRR084   | Daily Grid Operations Summary Report  | Not Started | Sep 2014            |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
| NPRR419  | Revise Real Time Energy Imbalance and RMR Adjustment Charge                                 | Not Started | Jan 2015            |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
| NPRR493  | Half-Hour RUC Clawback  | Not Started | Jan 2015            |                       |                        |                        |                 |                     |                     |               |                      |                      |                |
|  |   |             |                     |                       |                        |                        |                 |                     |                     |               |                      |                      |                |





# ERCOT Portfolio Stoplight Report (as of 11/11/2013)

| Project Number   | Projects Completed in the Current Year  | Phase    | Baseline Execution Phase Start | Baseline Go-Live Target | Actual Go-Live Date | Actual Execution Phase Finish | Schedule Status | Sum of 2013 Budgets | 2013 Actual Spend   | 2013 Variance | Sum of Total Budgets | Total Actual Spend  | Total Variance |
|--|---|----------|--------------------------------|-------------------------|---------------------|-------------------------------|-----------------|---------------------|---------------------|---------------|----------------------|---------------------|----------------|
| <b>PROJECTS COMPLETED IN 2013 (Count = 45) Sorted by Project</b> |   |          |                                |                         |                     |                               |                 | <b>\$ 4,379,624</b> | <b>\$ 2,956,854</b> | <b>32%</b>    | <b>\$ 10,904,465</b> | <b>\$ 8,907,629</b> | <b>18%</b>     |
| NPRR207  | Unit Deselection  | Closing  | 5/22/2013                      | 9/26/2013               | 9/26/2013           | 10/16/2013                    | 0%              |                     |                     | 13%           |                      |                     | 13%            |
| NPRR385  | Negative Price Floor  | Closing  | 5/22/2013                      | 9/26/2013               | 9/26/2013           | 10/25/2013                    | 0%              |                     |                     | 41%           |                      |                     | 41%            |
| NPRR479  | Daily Net Outage MW   | Closing  | 4/10/2013                      | 9/29/2013               | 9/30/2013           | 10/24/2013                    | 0%              |                     |                     | 21%           |                      |                     | 21%            |
| NPRR514  | Seasonal Generation Resource  | Closing  | 6/5/2013                       | 9/29/2013               | 9/29/2013           | 10/29/2013                    | 0%              |                     |                     | 2%            |                      |                     | 2%             |
| SCR770   | Revision to Outage Scheduling Entry for Resource Maintenance Outage Level Designation               | Closing  | 3/14/2013                      | 9/27/2013               | 9/24/2013           | 11/16/2013                    | 1%              |                     |                     | 61%           |                      |                     | 62%            |
| 072-01   | OSI PI Upgrades - EMS Production  | Closing  | 4/17/2013                      | 10/1/2013               | 10/2/2013           | 11/1/2013                     | 0%              |                     |                     | 0%            |                      |                     | 0%             |
| 098-01   | EPG Synchrophasor Upgrade   | Closing  | 5/8/2013                       | 9/16/2013               | 9/16/2013           | 10/2/2013                     | 0%              |                     |                     | 0%            |                      |                     | 0%             |
| 099-01   | Moody's Analytics   | Closing  | 5/15/2013                      | 10/14/2013              | 9/14/2013           | 10/24/2013                    | 19%             |                     |                     | 31%           |                      |                     | 31%            |
| NPRR260  | Providing Access to MIS Secure Area to MIS Registered Users   | Complete | 10/3/2012                      | 2/15/2013               | 2/15/2013           | 3/13/2013                     | 0%              |                     |                     | 3             |                      |                     | 19%            |
| NPRR313  | Updating the Term Resource Plan to Current Operating Plan / Availability Plan                       | Complete | 8/22/2012                      | 2/15/2013               | 2/15/2013           | 3/27/2013                     | 0%              |                     |                     | 42%           |                      |                     | 30%            |
| NPRR322  | Real-Time PTP Option Modeling   | Complete | 8/1/2012                       | 2/15/2013               | 2/15/2013           | 3/27/2013                     | 0%              |                     |                     | 27%           |                      |                     | 1%             |
| NPRR347  | Implementation of NPRR347 and NPRR400   | Complete | 3/29/2012                      | 2/15/2013               | 2/15/2013           | 3/27/2013                     | 0%              |                     |                     | 55%           |                      |                     | 3              |
| NPRR400  | Alternate Inputs to Base Point Deviation Charge   | Complete | 9/26/2012                      | 2/15/2013               | 2/15/2013           | 3/13/2013                     | 0%              |                     |                     | 74%           |                      |                     | 28%            |
| NPRR393  | SCED Constraint Management Transparency   | Complete | 3/13/2013                      | 8/8/2013                | 8/8/2013            | 10/11/2013                    | 0%              |                     |                     | 3             |                      |                     | 3              |
| NPRR397  | Balance of the Day Ancillary Service Market   | Complete | 9/19/2012                      | 2/15/2013               | 2/15/2013           | 3/27/2013                     | 0%              |                     |                     | 41%           |                      |                     | 35%            |
| NPRR407  | Credit Monitoring Posting Requirements - MMS/CDR Portion  | Complete | 9/19/2012                      | 2/15/2013               | 2/15/2013           | 3/27/2013                     | 0%              |                     |                     | 42%           |                      |                     | 20%            |
| NPRR456  | Clarification of Definition of Electrically Similar Settlement Points and Heuristic Pricing Posting | Complete | 2/14/2013                      | 4/25/2013               | 4/25/2013           | 6/19/2013                     | 0%              |                     |                     | 20%           |                      |                     | 21%            |
| NPRR457  | Daily Update of New ESI IDs and AMS Meter and Switch Hold Indicators Changes                        | Complete | 4/10/2013                      | 9/29/2013               | 9/26/2013           | 10/16/2013                    | 1%              |                     |                     | 57%           |                      |                     | 57%            |
| NPRR461  | Energy Storage Settlements Consistent with PUCT Project 39917                                       | Complete | 3/13/2013                      | 7/30/2013               | 7/30/2013           | 8/20/2013                     | 0%              |                     |                     | 1%            |                      |                     | 2%             |
| NPRR463  | CRS Auction Structure Enhancements  | Complete | 12/20/2012                     | 4/5/2013                | 4/1/2013            | 6/5/2013                      | 3%              |                     |                     | 43%           |                      |                     | 35%            |
| NPRR469  | Modifications to CCTs   | Complete | 9/19/2012                      | 2/15/2013               | 2/15/2013           | 3/27/2013                     | 0%              |                     |                     | 49%           |                      |                     | 21%            |
| NPRR481  | Report of Hourly Actual System Load by Weather Zone   | Complete | 4/10/2013                      | 6/13/2013               | 6/13/2013           | 7/10/2013                     | 0%              |                     |                     | 59%           |                      |                     | 58%            |
| NPRR520  | Real-Time Mitigation Rules and Creation of a Real-Time Constraint Competitiveness Test              | Complete | 5/1/2013                       | 8/1/2013                | 8/1/2013            | 8/22/2013                     | 0%              |                     |                     | 4%            |                      |                     | 4%             |
| NOGRR093   | Synchronization with NPRR365  | Complete | 3/27/2013                      | 6/14/2013               | 6/14/2013           | 7/10/2013                     | 0%              |                     |                     | 65%           |                      |                     | 64%            |
| SCR760   | Recommended Changes Needed for Information Model Mgr and Topology Processor for Planning Models     | Complete | 8/25/2011                      | 7/31/2013               | 7/31/2013           | 8/7/2013                      | 0%              |                     |                     | 42%           |                      |                     | 27%            |
| SCR768   | Automatic Non-Spin Redeployment and Deployment Based on Resource Availability                       | Complete | 9/19/2012                      | 2/15/2013               | 2/15/2013           | 3/27/2013                     | 0%              |                     |                     | 49%           |                      |                     | 2%             |
| SCR773   | Addition of Regulation Feedback to Generation to be Dispatched Calculation                          | Complete | 5/3/2013                       | 5/23/2013               | 5/23/2013           | 6/26/2013                     | 0%              |                     |                     | 8%            |                      |                     | 8%             |
| 90006_02   | Information Lifecycle Mgmt - Mkt Systems, Archive, Reporting  | Complete | 4/22/2011                      | 6/26/2014               | 5/13/2013           | 5/15/2013                     | 35%             |                     |                     | 5%            |                      |                     | 37%            |
| 006-01   | SAGE (System Administrator Gateway Environment)   | Complete | 5/31/2012                      | 12/19/2012              | 1/3/2013            | 1/3/2013                      | 1               |                     |                     | -7%           |                      |                     | 0%             |
| 009-01   | Compliance Software Tool  | Complete | 12/1/2011                      | 11/30/2012              | 12/19/2012          | 12/19/2012                    | 1               |                     |                     | -5%           |                      |                     | 20%            |
| 010-02   | MarketTrak Upgrade  | Complete | 12/1/2012                      | 6/22/2013               | 6/22/2013           | 8/28/2013                     | 0%              |                     |                     | 2             |                      |                     | 4%             |
| 019-01   | ERCOT Website Enhancements - 2012   | Complete | 3/8/2012                       | 12/26/2012              | 5/1/2013            | 4/24/2013                     | -43%            |                     |                     | 3             |                      |                     | 3              |
| 020-01   | CIM Upgrade for NMMS  | Complete | 6/14/2012                      | 2/15/2013               | 2/15/2013           | 3/13/2013                     | 0%              |                     |                     | 12%           |                      |                     | 22%            |
| 021-01   | Incremental Update Capability - Phase 1   | Complete | 3/23/2012                      | 2/6/2013                | 2/13/2013           | 2/13/2013                     | -2%             |                     |                     | 0%            |                      |                     | 63%            |
| 030-01   | ITRON Load Forecast   | Complete | 6/27/2012                      | 2/15/2013               | 2/15/2013           | 3/20/2013                     | 0%              |                     |                     | 5             |                      |                     | -2%            |
| 042-01   | CRS Upgrade to v12.3  | Complete | 5/16/2012                      | 4/1/2013                | 4/1/2013            | 8/2/2013                      | 0%              |                     |                     | 69%           |                      |                     | 37%            |
| 043-01   | Met Center Lease Reconfiguration  | Complete | 9/12/2012                      | 12/19/2012              | 12/19/2012          | 10/19/2012                    | 0%              |                     |                     | 87%           |                      |                     | 10%            |
| 046-01   | MAI Conversion to IGRID   | Complete | 8/2/2012                       | 2/15/2013               | 2/15/2013           | 3/20/2013                     | 0%              |                     |                     | 3             |                      |                     | 0%             |
| 048-01   | TSAT Wind Model   | Complete | 8/16/2012                      | 4/25/2013               | 4/25/2013           | 6/5/2013                      | 0%              |                     |                     | 3             |                      |                     | 7%             |
| 067-01   | Physical Security Upgrade   | Complete | 2/13/2013                      | 7/26/2013               | 7/26/2013           | 7/17/2013                     | 0%              |                     |                     | 70%           |                      |                     | 68%            |
| 074-01   | Mobile Device Management - POC  | Complete | 3/13/2013                      | 10/2/2013               | 9/25/2013           | 9/25/2013                     | 3%              |                     |                     | 4%            |                      |                     | 26%            |
| 096-01   | Backup Software Strategy and Proposed License Cost Reduction  | Complete | 5/22/2013                      | 7/12/2013               | 7/12/2013           | 8/14/2013                     | 0%              |                     |                     | 12%           |                      |                     | 12%            |
| 103-01   | NAS Data Storage / File Synchronization - EMMS System and Applications                              | Complete | 5/8/2013                       | 9/6/2013                | 9/9/2013            | 9/10/2013                     | 0%              |                     |                     | 39%           |                      |                     | 39%            |
| 070-01   | Linux Configuration Management Tool   | Canceled | 1/24/2013                      | 6/26/2013               | n/a                 | n/a                           | -2%             |                     |                     | 87%           |                      |                     | 0%             |
| 071-01   | Windows Server Systems Management   | Canceled | 1/23/2013                      | 6/26/2013               | n/a                 | n/a                           |                 |                     |                     | 94%           |                      |                     | 0%             |

## SUMMARY

|    |  | Sum of 2013 Budgets | 2013 Forecast Spend | Sum of Total Budgets | Total Forecast Spend |
|----|--|---------------------|---------------------|----------------------|----------------------|
| 4% | KPI Budget Measure - Execution/Completed Projects  | \$ 15,715,351       | \$ 13,939,833       | \$ 40,952,427        | \$ 38,646,812        |
| 5% | KPI Schedule Measure - Execution/Completed Project | \$ 75,382           | TBD                 | \$ 3,150,664         | TBD                  |
|    | <b>Projects Completed</b>                          | \$ 4,379,624        | \$ 2,956,854        | \$ 10,904,465        | \$ 8,907,629         |
|    | <b>TOTAL</b>                                       | \$ 20,170,356       | \$ 16,896,687       | \$ 55,007,556        | \$ 47,554,441        |
|    | <b>Project Funding</b>                             | \$ 16,000,000       |                     |                      |                      |

### Stoplight Calculation Definitions

Schedule: Count of Execution and Completed Projects with Variance >= 10%  
/ Count of Execution and Completed Projects

Budget: (Total Budget of Execution and Completed Projects  
- Total Forecast Spend of Execution and Completed Projects)  
/ Total Budget of Execution and Completed Projects

### Footnotes

- 1 Current phase took longer than expected, resulting in additional funding and/or time required
- 2 Labor hours planned for 2012 occurred in 2013
- 3 Current phase requiring more labor than expected, resulting in additional funding and/or time required
- 4 Project temporarily placed on hold
- 5 Delay in vendor payment shifted cost from 2012 to 2013
- 6 Current demand exceeds budget
- 7 Loss of resource and transition to replacement resulted in phase delay



ERCOT Public