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

ERCOT Public  
October 15, 2013

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# **Grid Operations & Planning**

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## Summary – September 2013

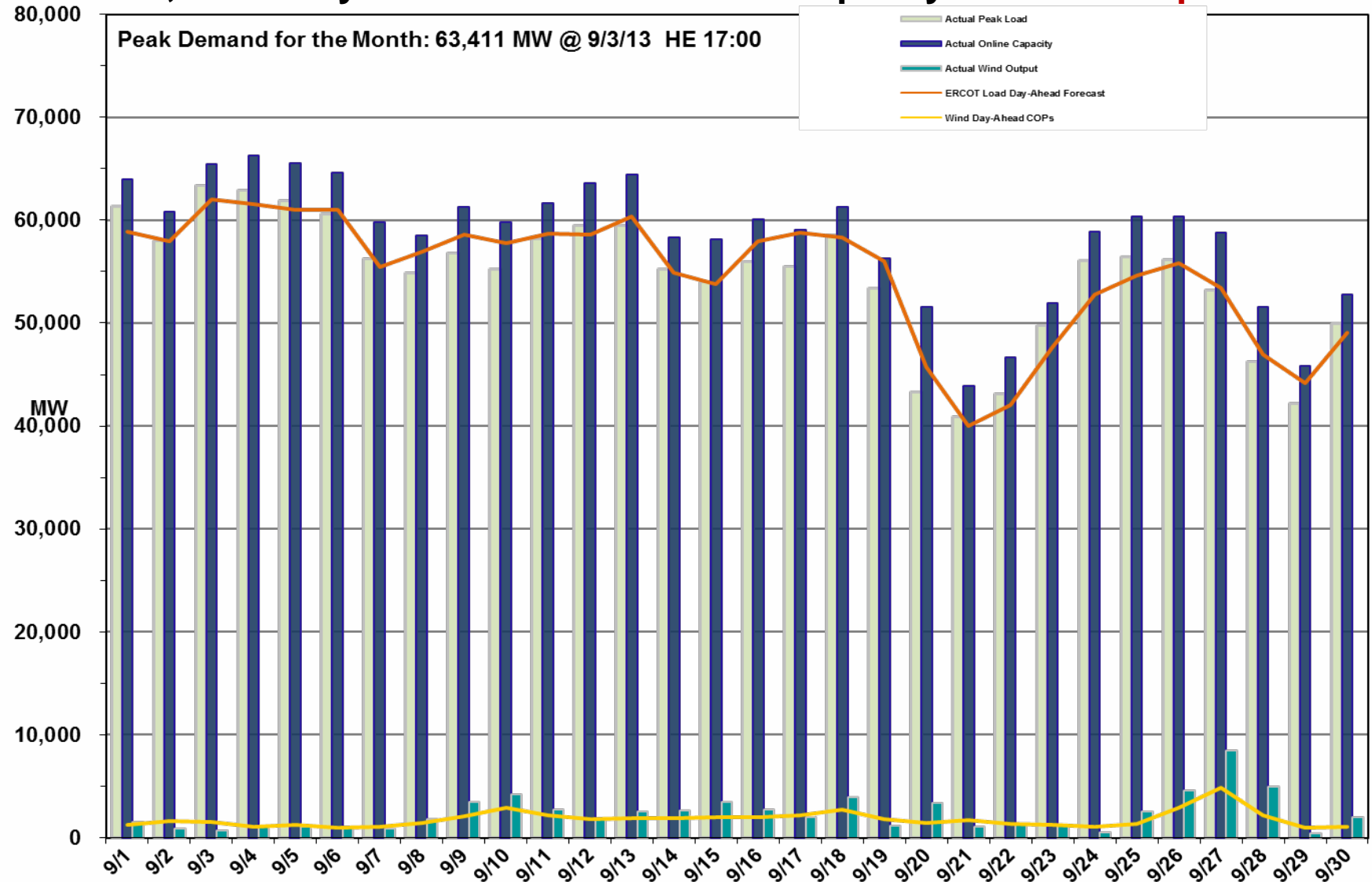
- **Operations**

- The peak demand of 63,411 MW on September 3<sup>rd</sup> was more than the mid-term forecast peak of 62,010 MW and less than the September 2012 actual peak demand of 64,862 MW. The instantaneous load on September 3<sup>rd</sup> was 63,587 MW.
- Day-ahead load forecast error for September was 2.41%
- ERCOT issued one Advisory.
  - Single advisory for state estimator, RTCA and VSAT/TSAT not solved for 30 minutes.
- No Watches were issued
- No Emergency Notices were issued
- No Energy Emergency Alert (EEA) events

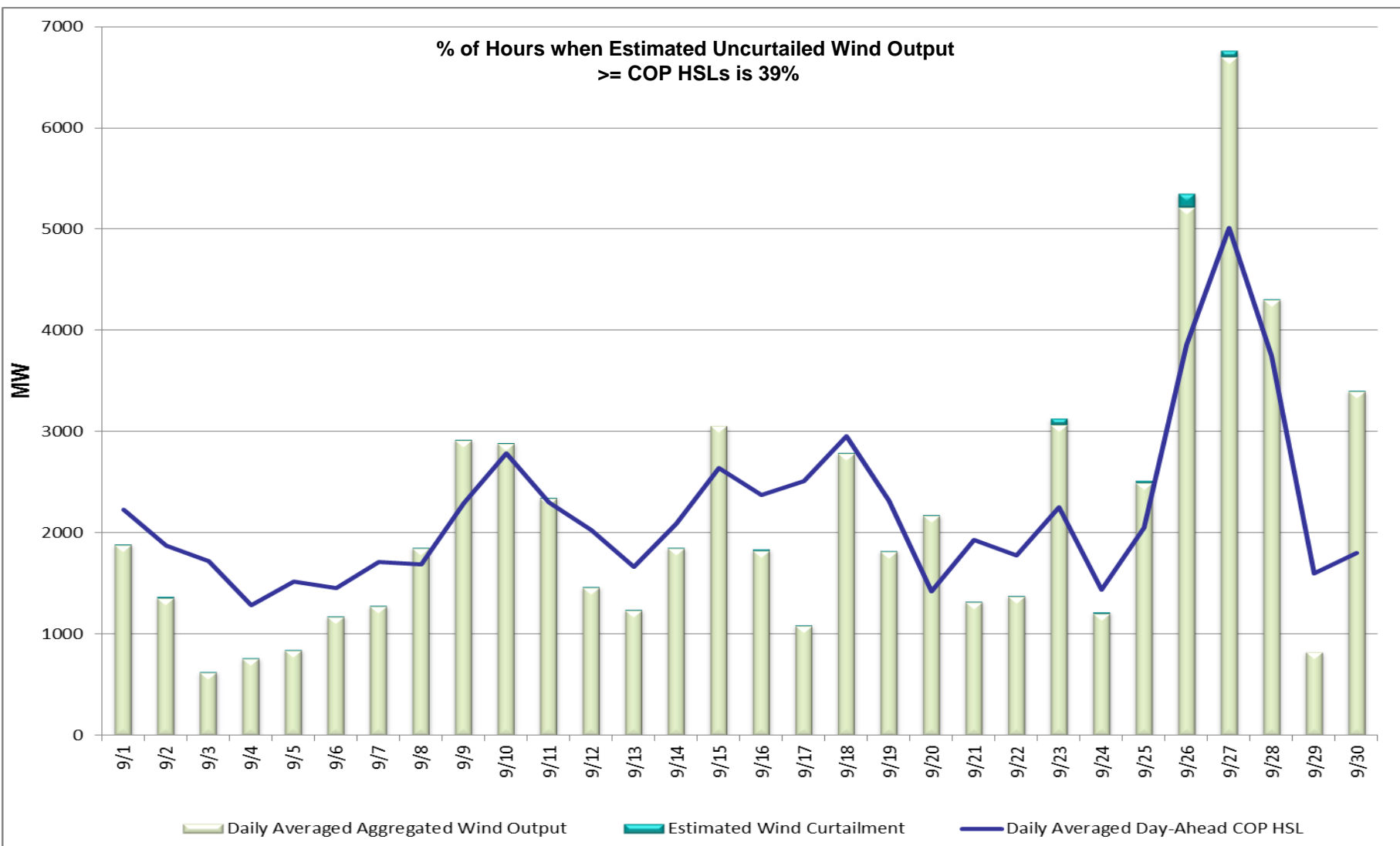
- **Planning Activities**

- 168 active generation interconnection requests totaling over 42,300 MW, including 21,100 MW of wind generation as of September 30, 2013. Six more requests and 900 more total MW from August 31, 2013
- 10,970 MW wind capacity in commercial operation September 30, 2013; 400 more MW than August 31, 2013

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

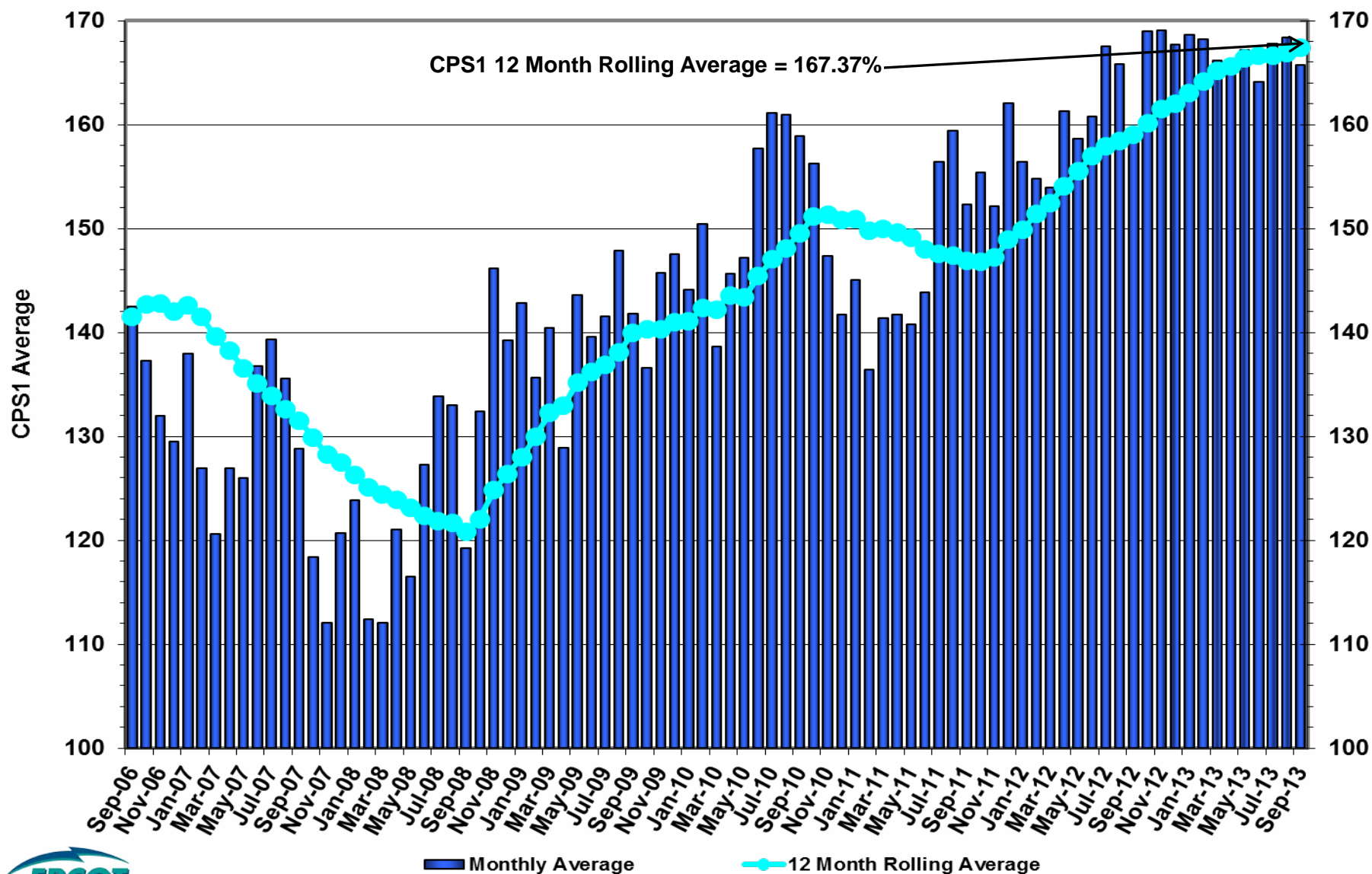


# Actual Wind Output plus Curtailments vs. Wind Day-Ahead COPs for All Hours – September 2013



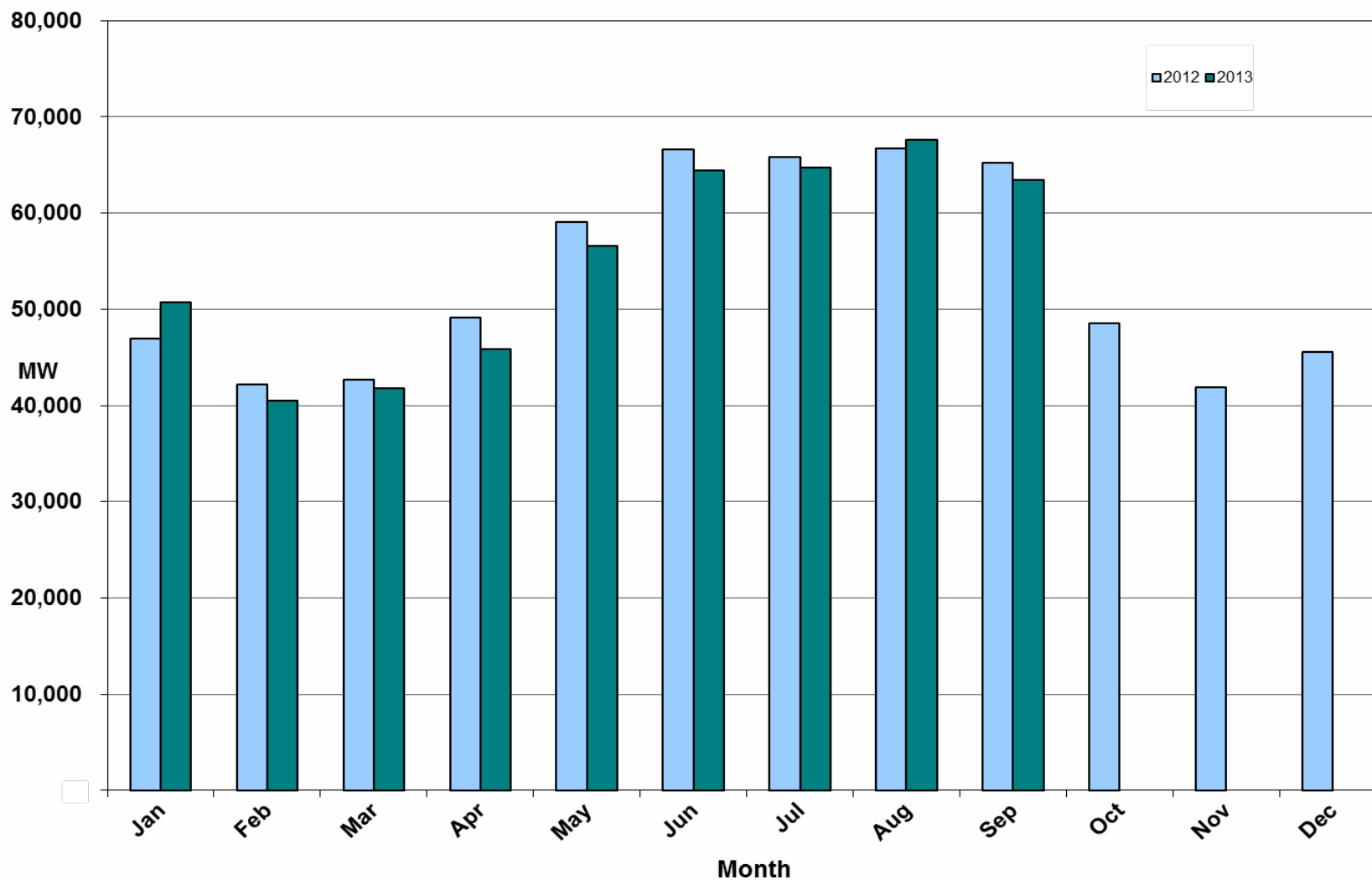
**Note: QSEs must use the AWST 50% probability of exceedance forecast as the HSL in their COPs**

# ERCOT's CPS1 Monthly Performance – September 2013

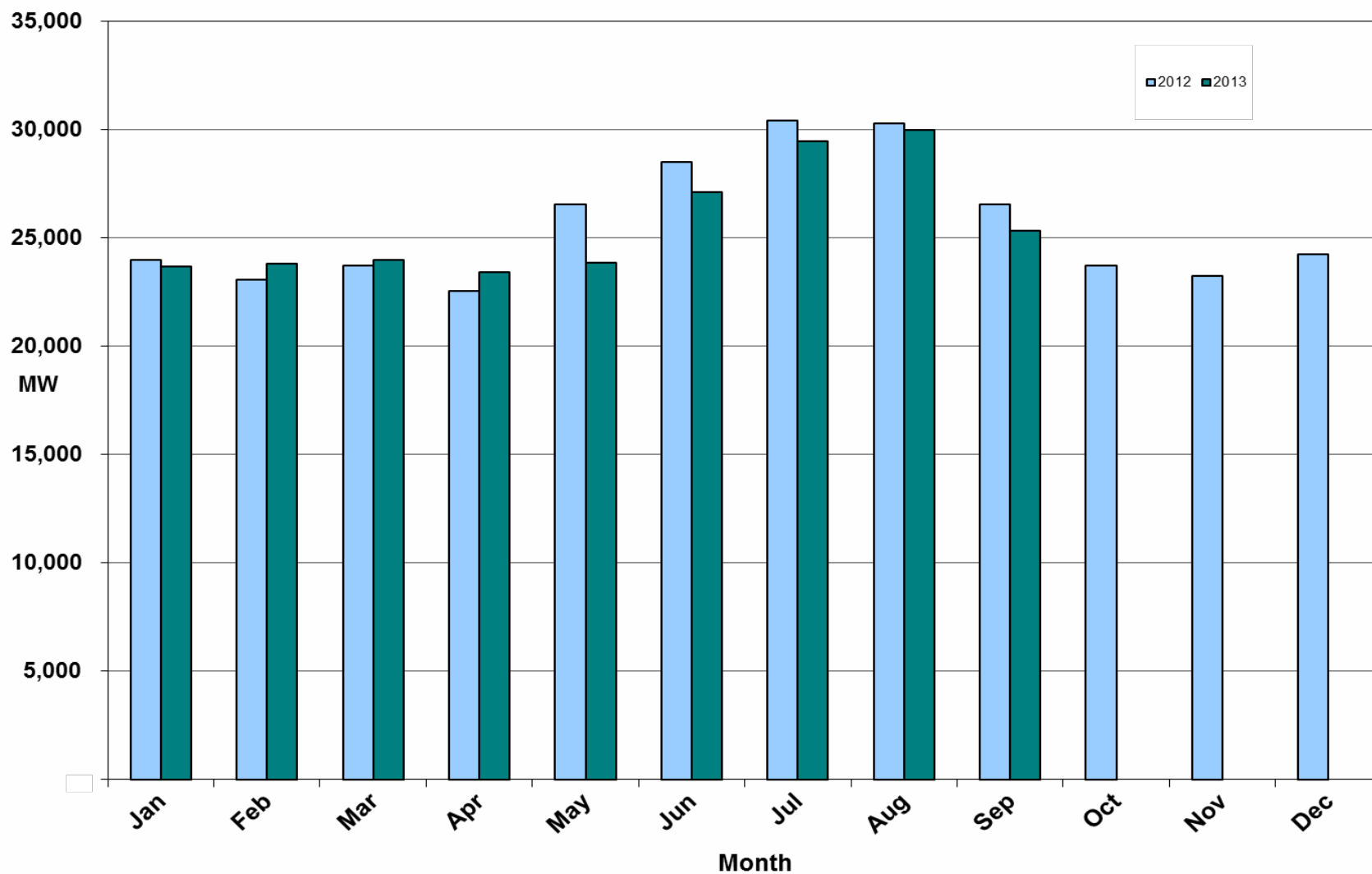


ERCOT Public

## Monthly Peak Actual Demand – September 2013



## Monthly Minimum Actual Demand – September 2013



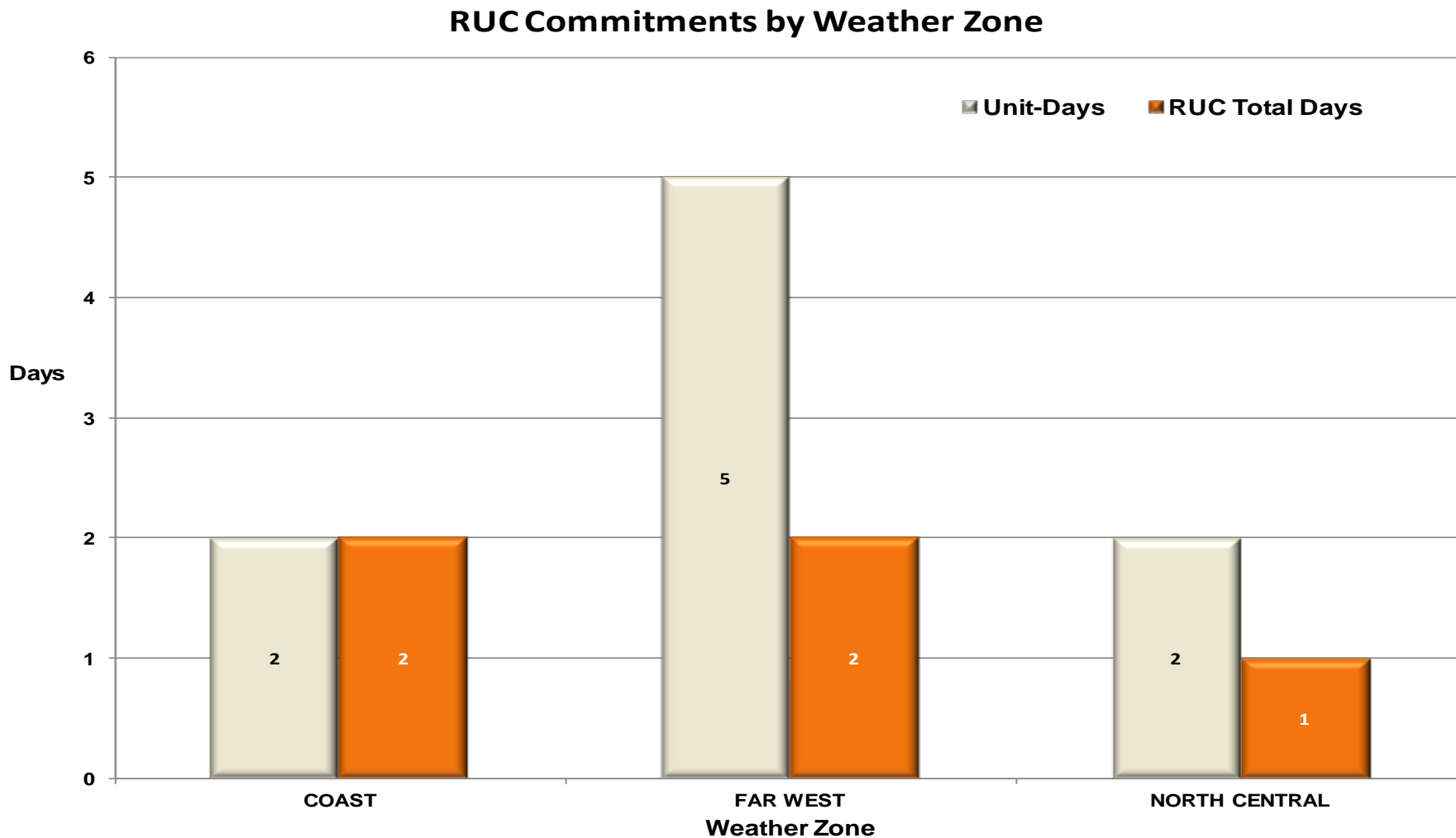


## Day-Ahead Load Forecast Performance – September 2013

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

	<b>2010 MAPE</b>	<b>2011 MAPE</b>	<b>2012 MAPE</b>	<b>2013 MAPE</b>	<b>Sep 2013 MAPE</b>	
<b>Average Annual MAPE</b>	<b>2.83</b>	<b>2.83</b>	<b>3.02</b>	<b>2.74</b>	<b>2.41</b>	
<b>Lowest Monthly MAPE</b>	<b>2.24</b>	<b>1.63</b>	<b>2.51</b>	<b>2.07</b>	<b>Lowest Daily MAPE</b>	<b>0.91</b> September – 18
<b>Highest Monthly MAPE</b>	<b>3.79</b>	<b>3.55</b>	<b>3.49</b>	<b>3.50</b>	<b>Highest Daily MAPE</b>	<b>6.53</b> September – 20

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



## Generic Transmission Limits (GTLs) – September 2013

GTLs	Sep 12 Days GTLs	Jul 13 Days GTLs	Aug 13 Days GTLs	Sep 13 Days GTLs	Last 12 Months Total Days (Sep12 – Sep13)
North – Houston	0	0	0	0	0
West – North	4	0	0	1	75
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 – September 2013

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- Advisories issued for application issues.
  - Issued one day (09/19)
    - State Estimator, RTCA, and VSAT/TSAT not solved in 30 minutes.
- Advisories issued for Physical Responsive Capability (PRC) below 3000 MW.
  - None
- Transmission Watches
  - None
- Emergency Notice
  - None
- Energy Emergency Alerts
  - None

## Significant Events – September 2013

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- No significant events to report

## Lake Levels Update – October 1, 2013

Surface Water & (MW)	*Level @ Full Conservation Pool	*Level on Jan 1, 2011	*Level on Oct 7, 2011	*Level on Oct 1, 2013
Lake Texana (56)	44.50	41.00	32.81	40.63
Bardwell Lake (312)	421.00	420.71	416.23	416.14
Lake Colorado City (407)	2,070.20	2057.33	2052.4	2050.22
Lake Ray Hubbard (916)	435.50	432.37	429.22	429.02
Lake Granbury (983)	693.00	691.90	686.27	685.25
Lake Houston (1016)	41.73	42.10	36.76	42.39
Twin Oaks Reservoir (1616)	400	398.87	398.27	400.12
Lake Limestone (1689)	363	359.03	354	355.85
Martin Lake (2425)	306	300.48	295.06	301.26

\* In Feet above Mean Sea Level

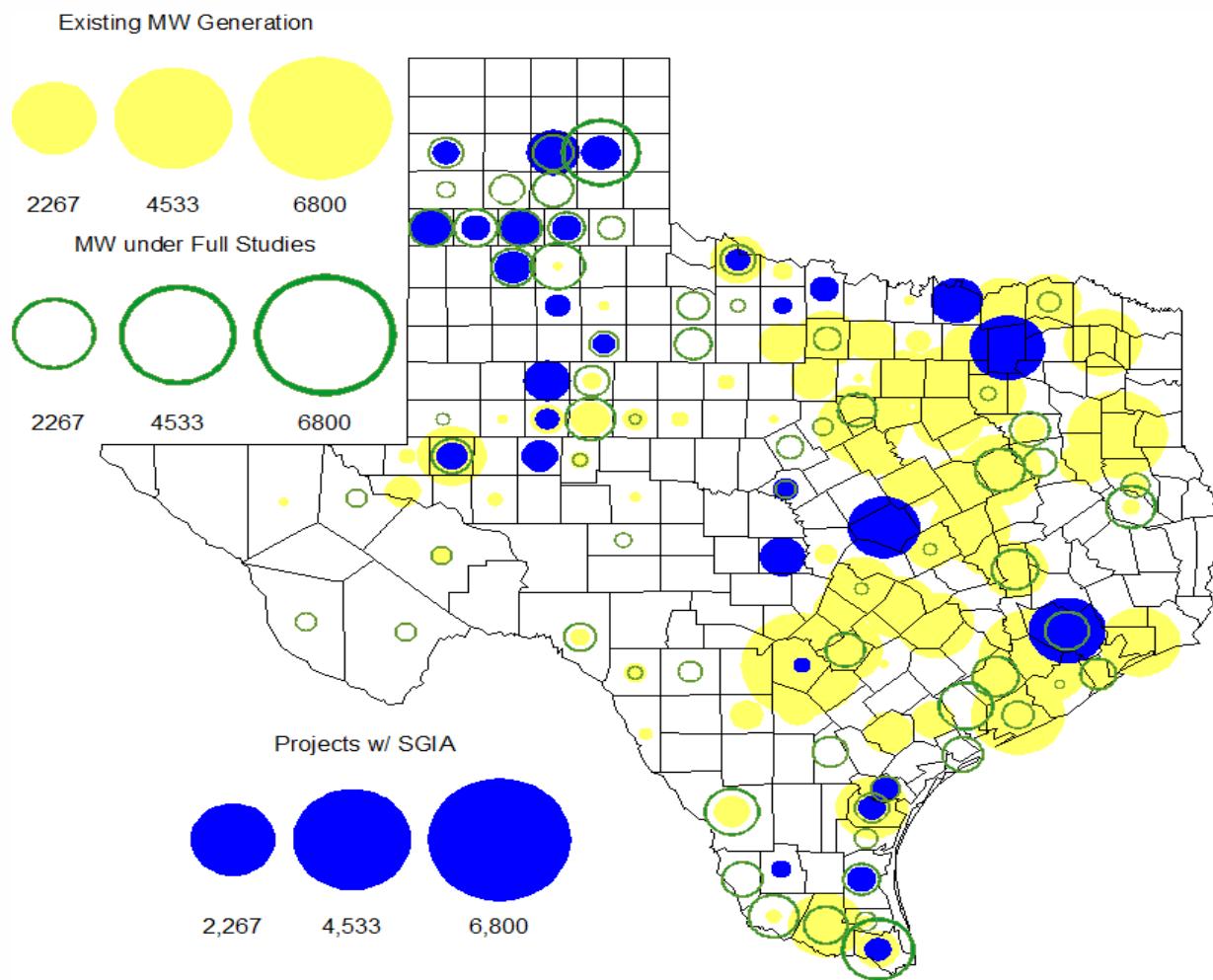


## Planning Summary – September 2013

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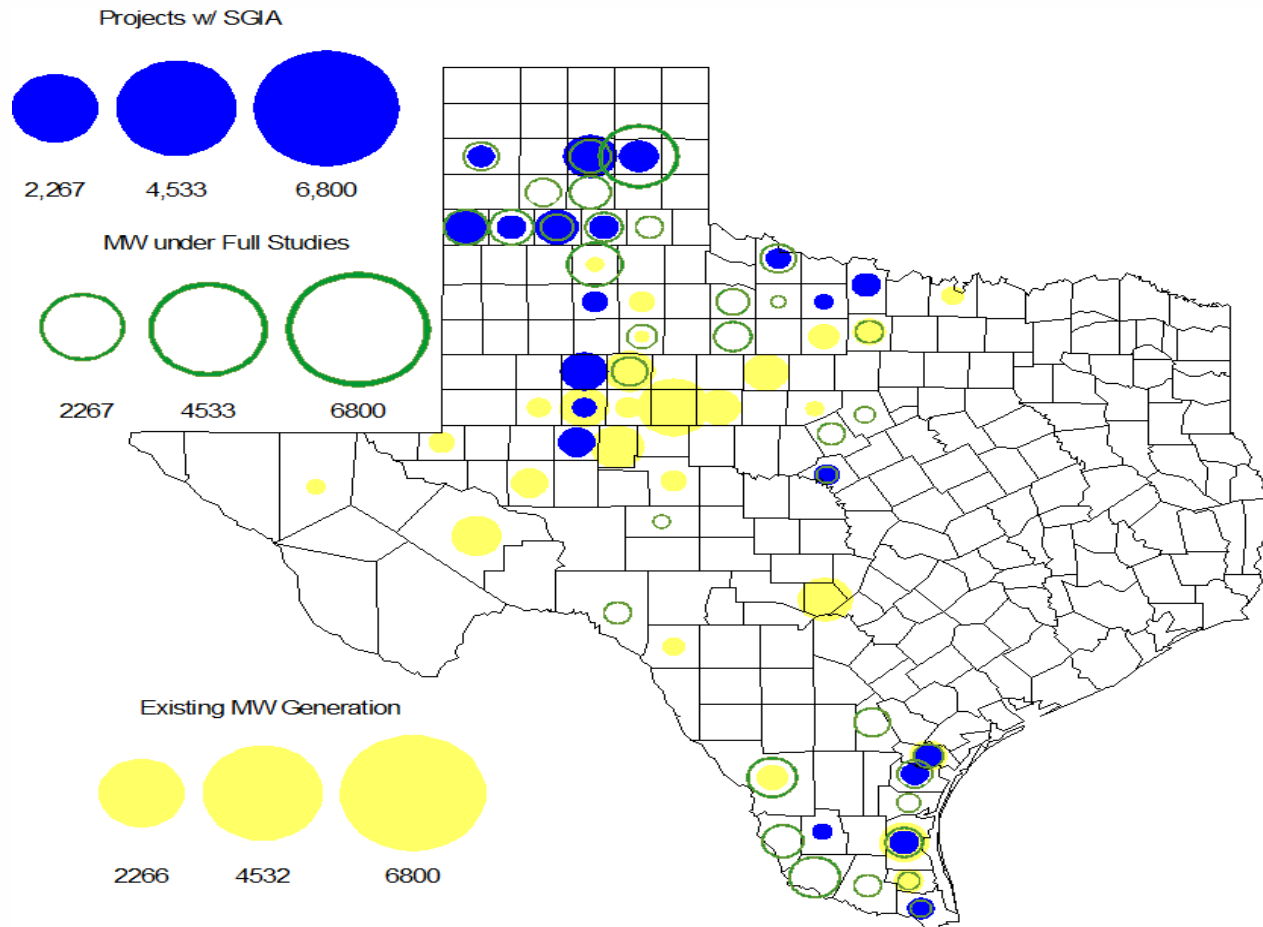
- **ERCOT is currently tracking 168 active generation interconnection requests totaling over 42,300 MW. This includes over 21,100 MW of wind generation.**
- **ERCOT is currently reviewing proposed transmission improvements with a total cost of \$675 Million**
- **Transmission Projects endorsed in 2013 total \$349.8 Million**
- **All projects (in engineering, routing, licensing and construction) total approximately \$8.82 Billion.**
- **Transmission Projects energized in 2013 total about \$1.29 Billion.**

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

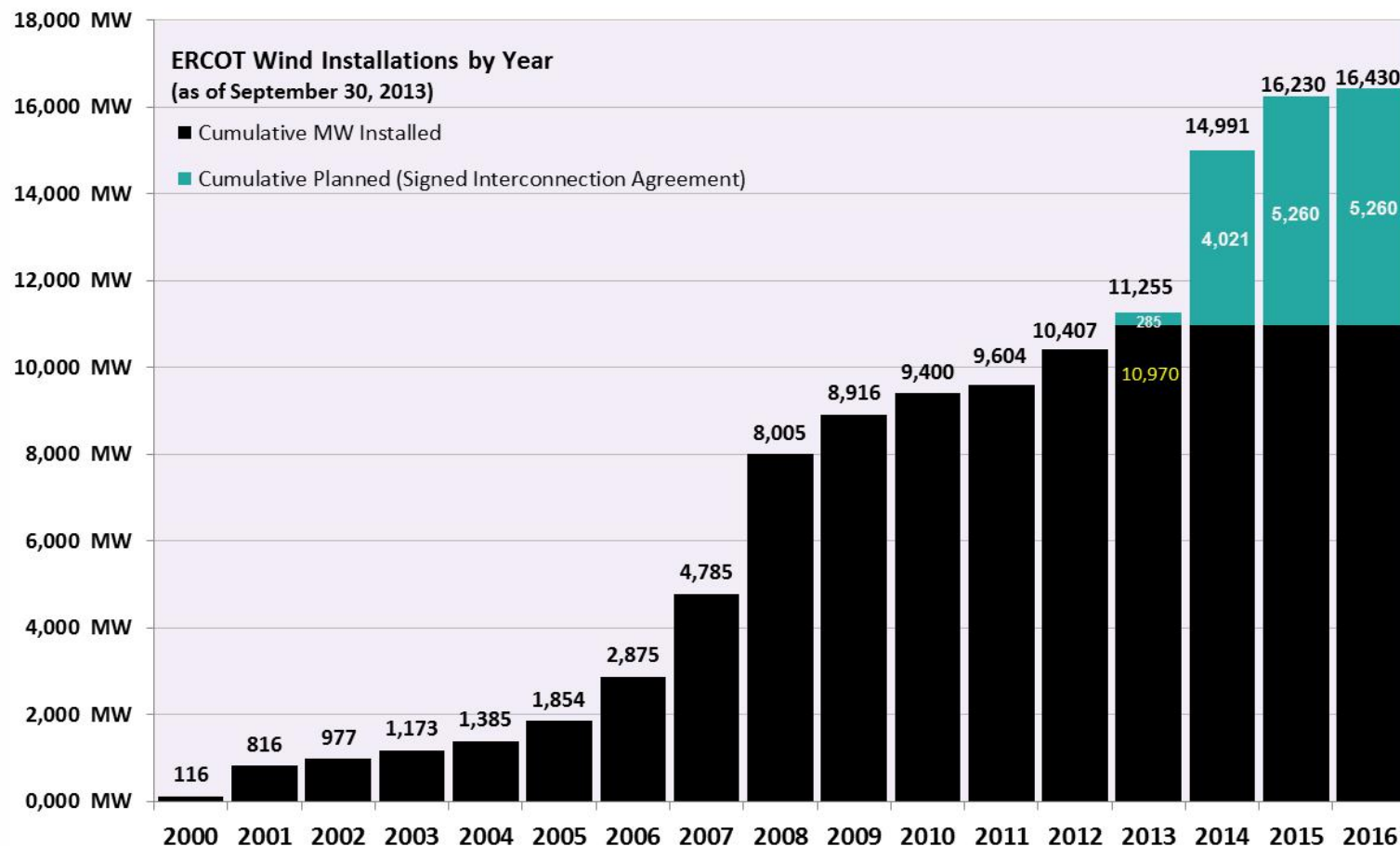




# County Location of Wind Generation – September 2013



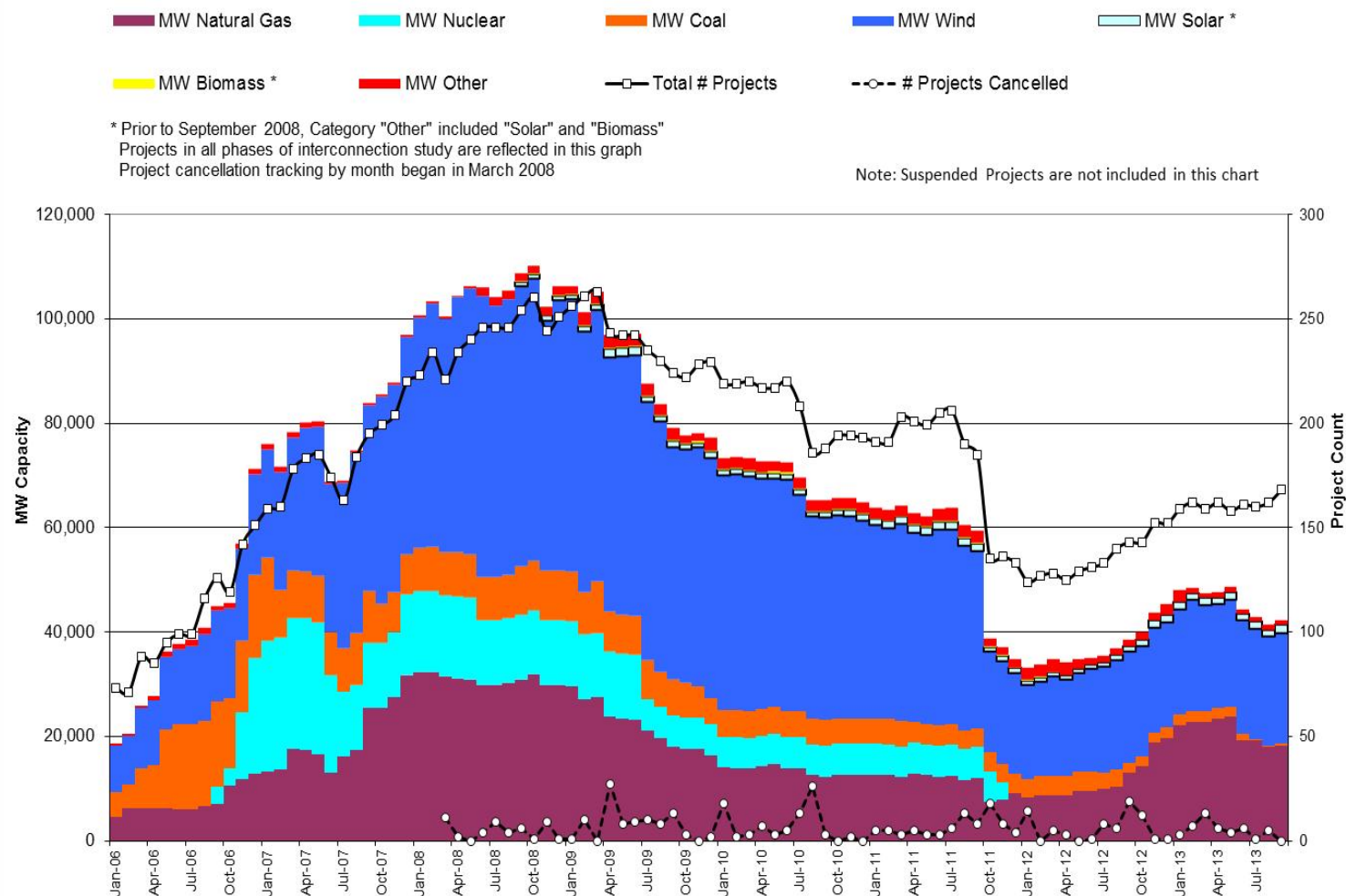
# Wind Generation – September 2013



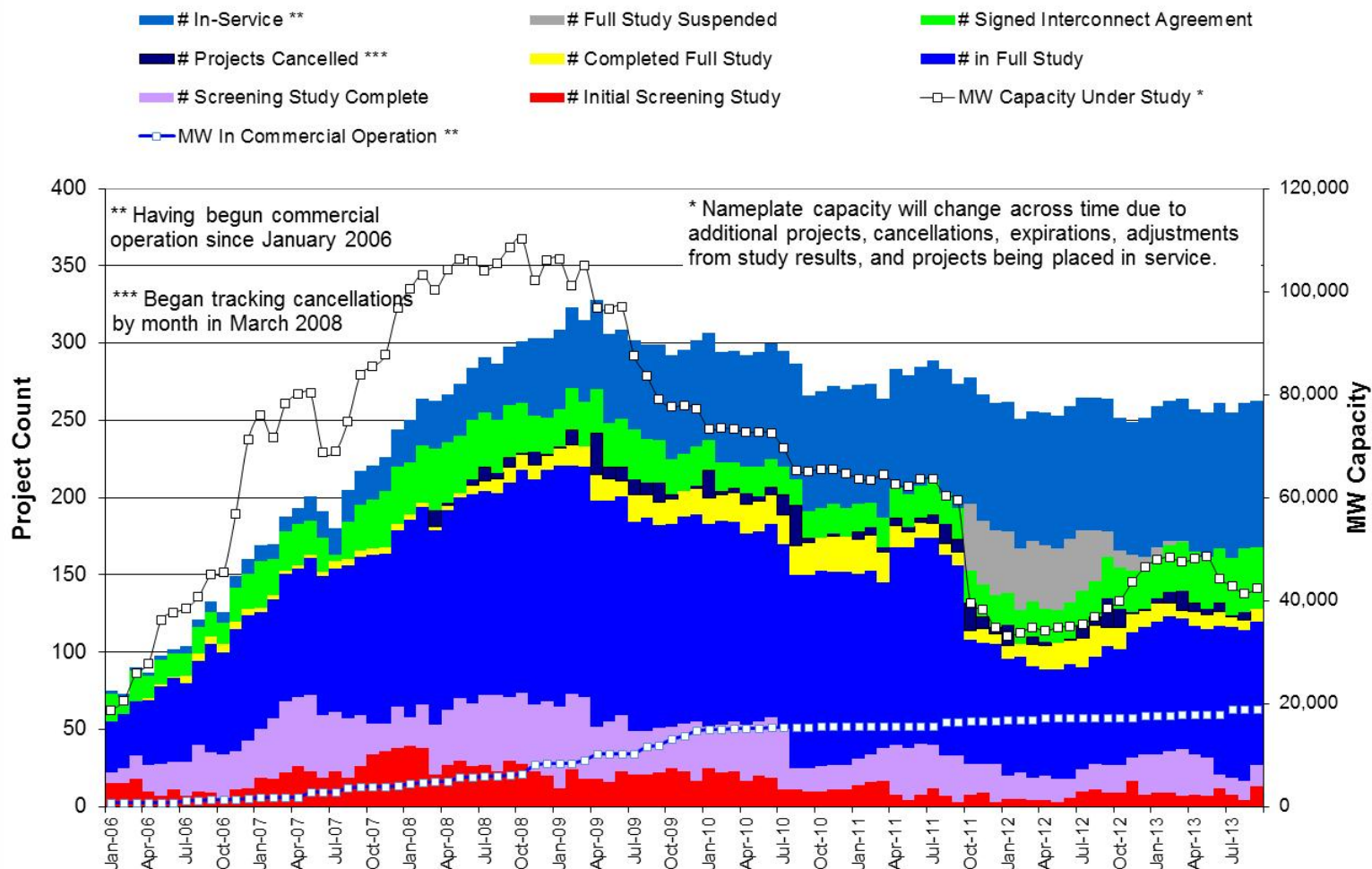
The data presented here is based upon the latest registration data provided to ERCOT by the resource owners and can change without notice. Any capacity changes will be reflected in current and subsequent years' totals. Scheduling delays will also be reflected in the planned projects as that information 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 – September 2013



# Generation Interconnection Activity by Project Phase – September 2013

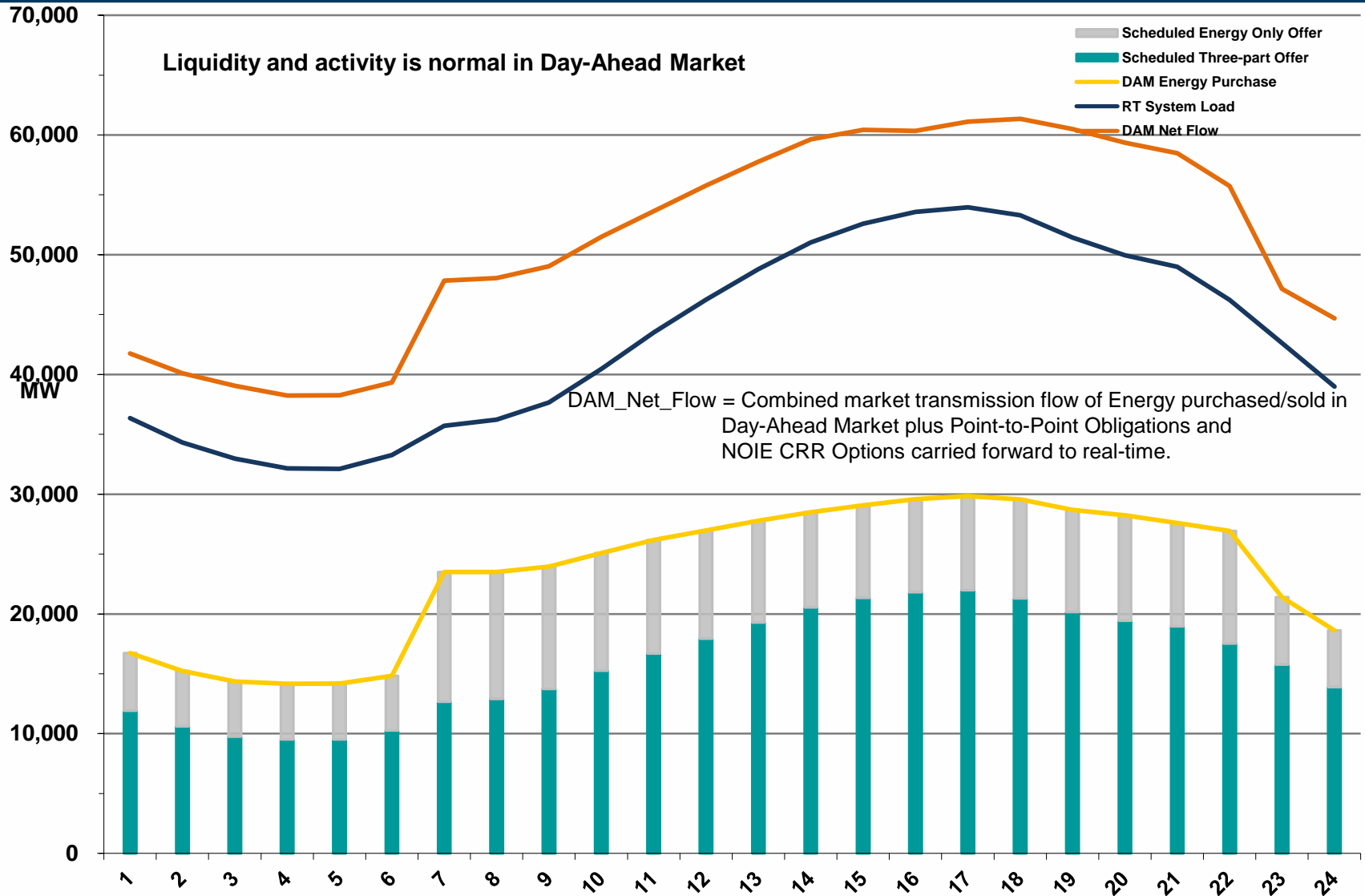


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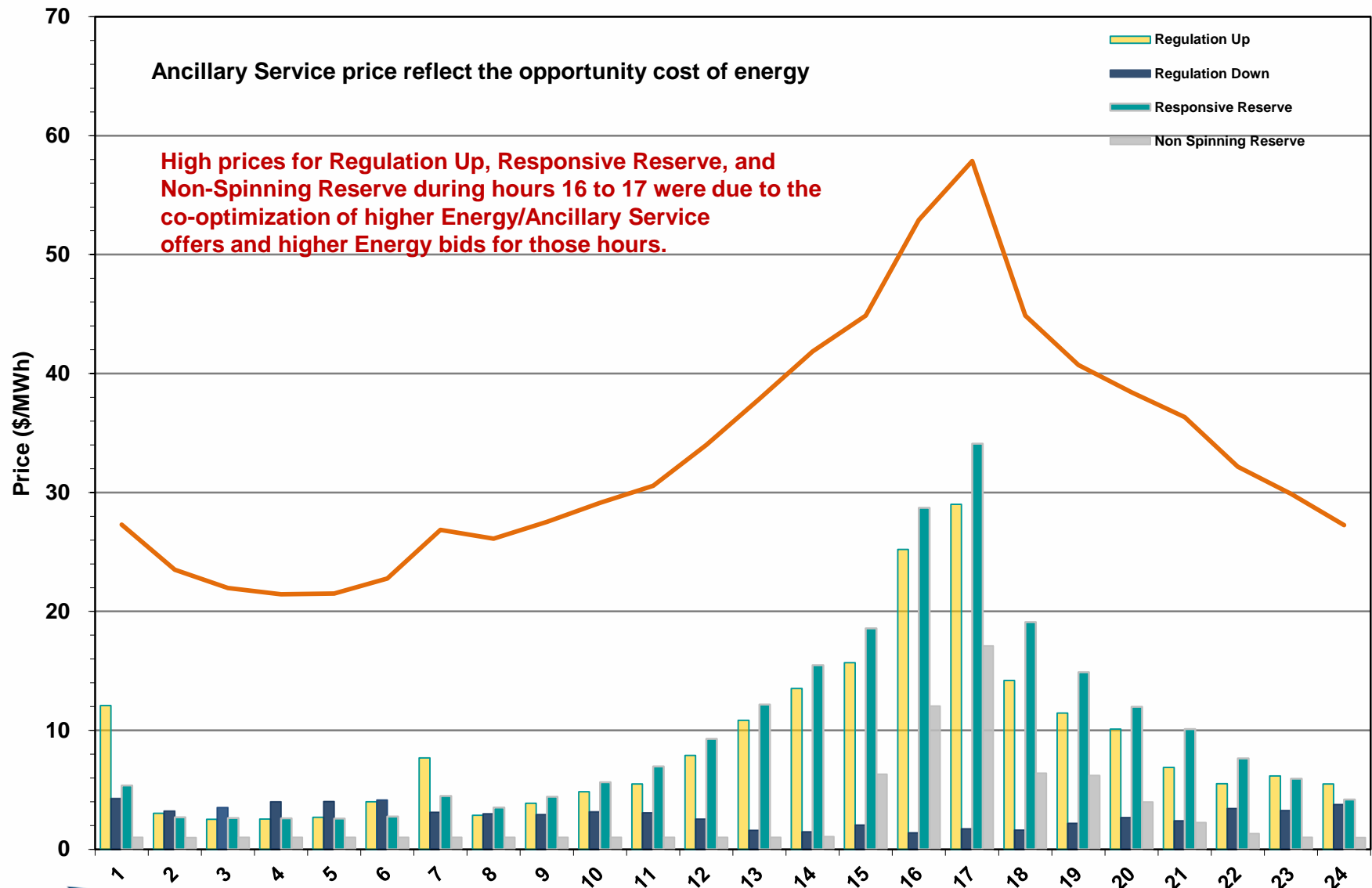
# **Market Operations**

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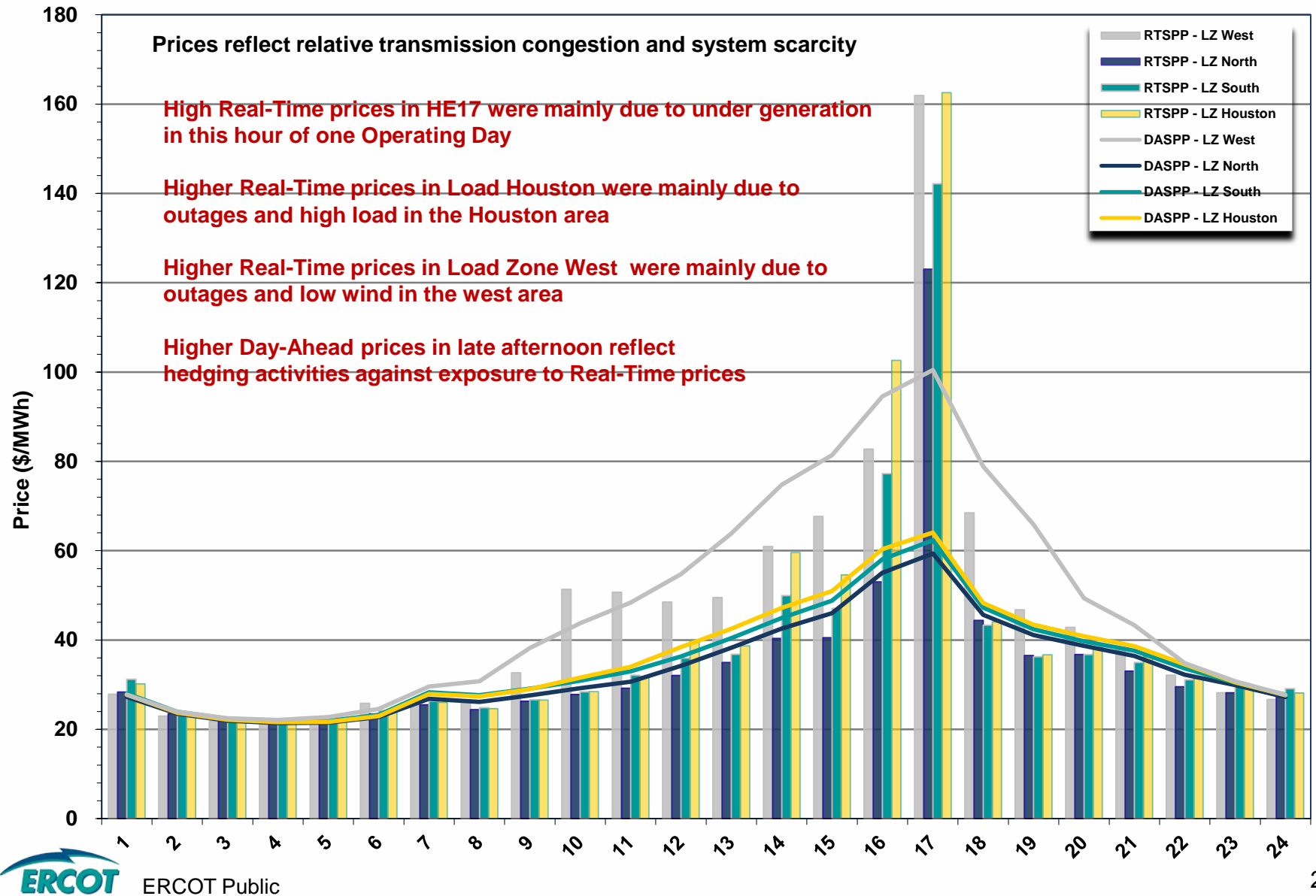
# Day-Ahead Schedule (Hourly Average) – September 2013



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

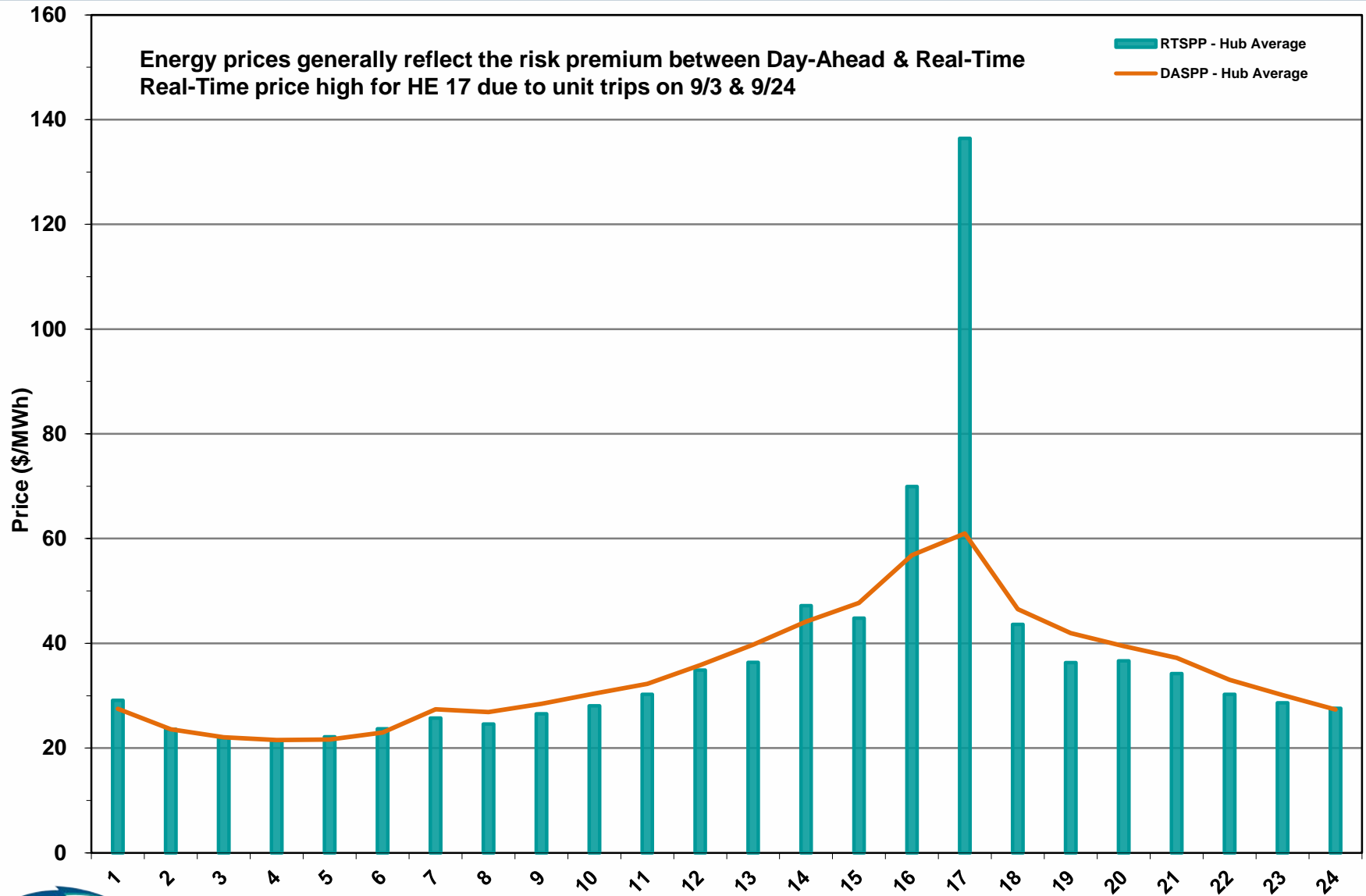


# Day-Ahead Vs Real-Time Load Zone SPP (Hourly Average) – September 2013

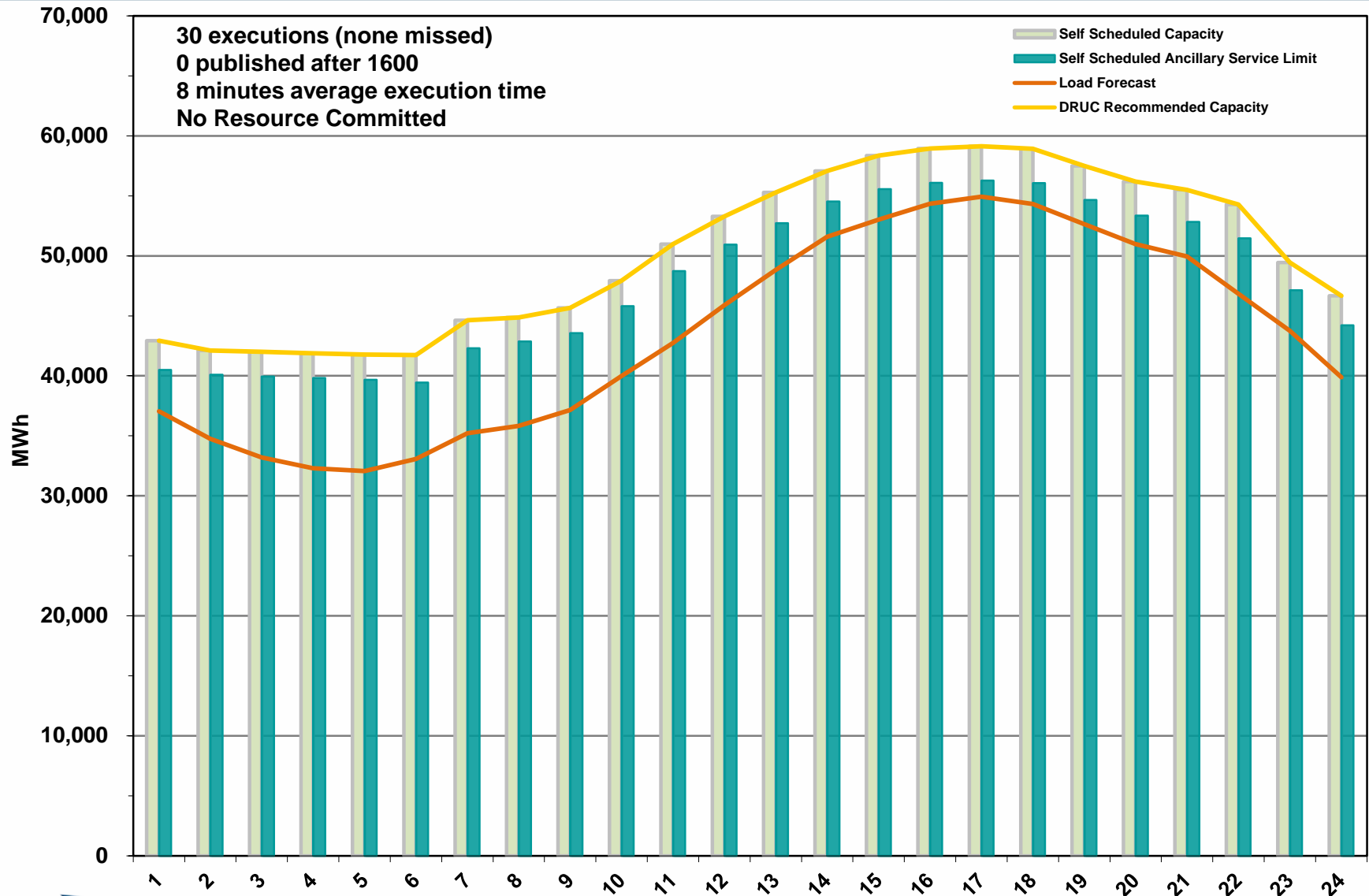




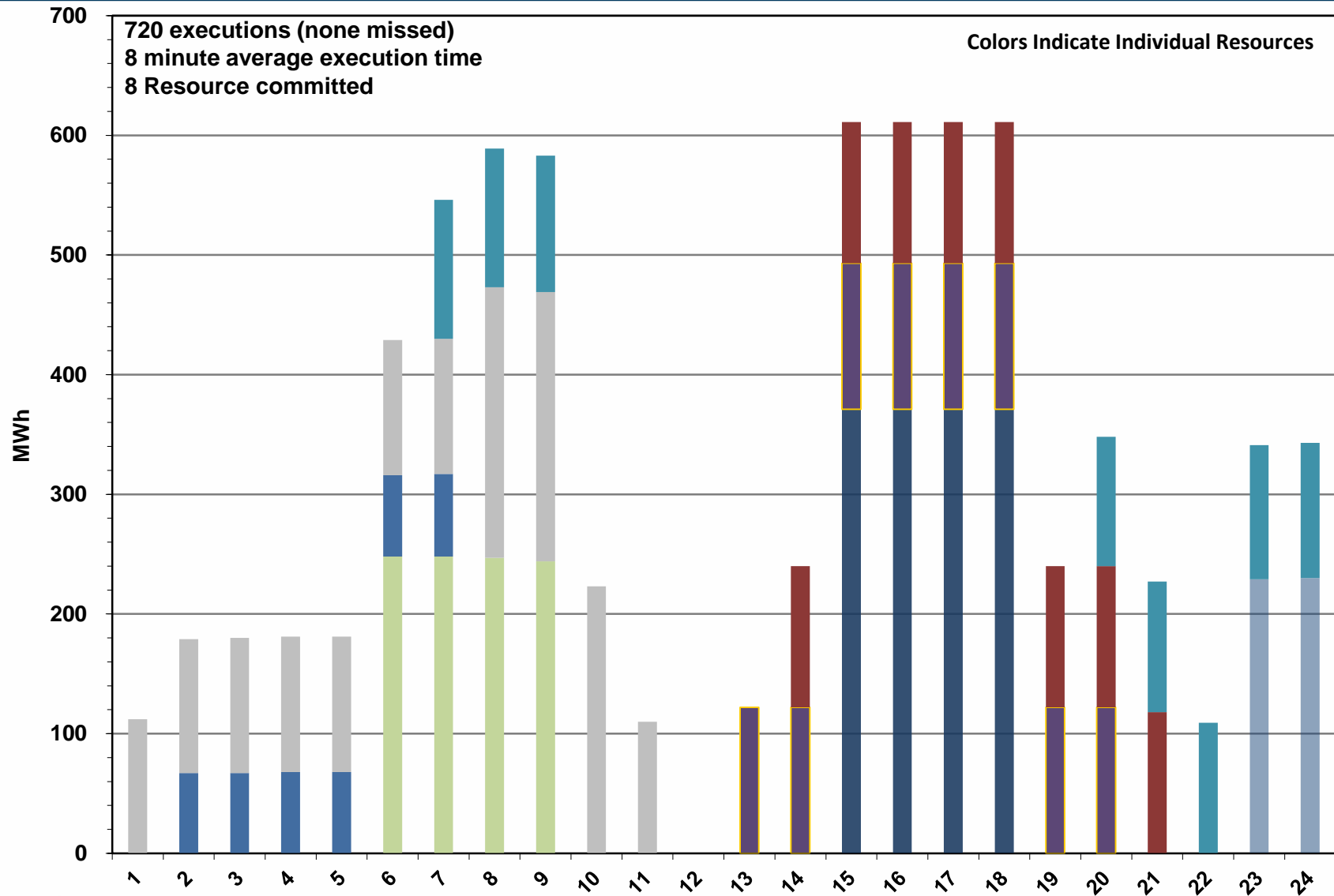
# Day-Ahead Vs Real-Time Hub Average SPP (Hourly Average) – September 2013



# DRUC Monthly Summary (Hourly Average) – September 2013



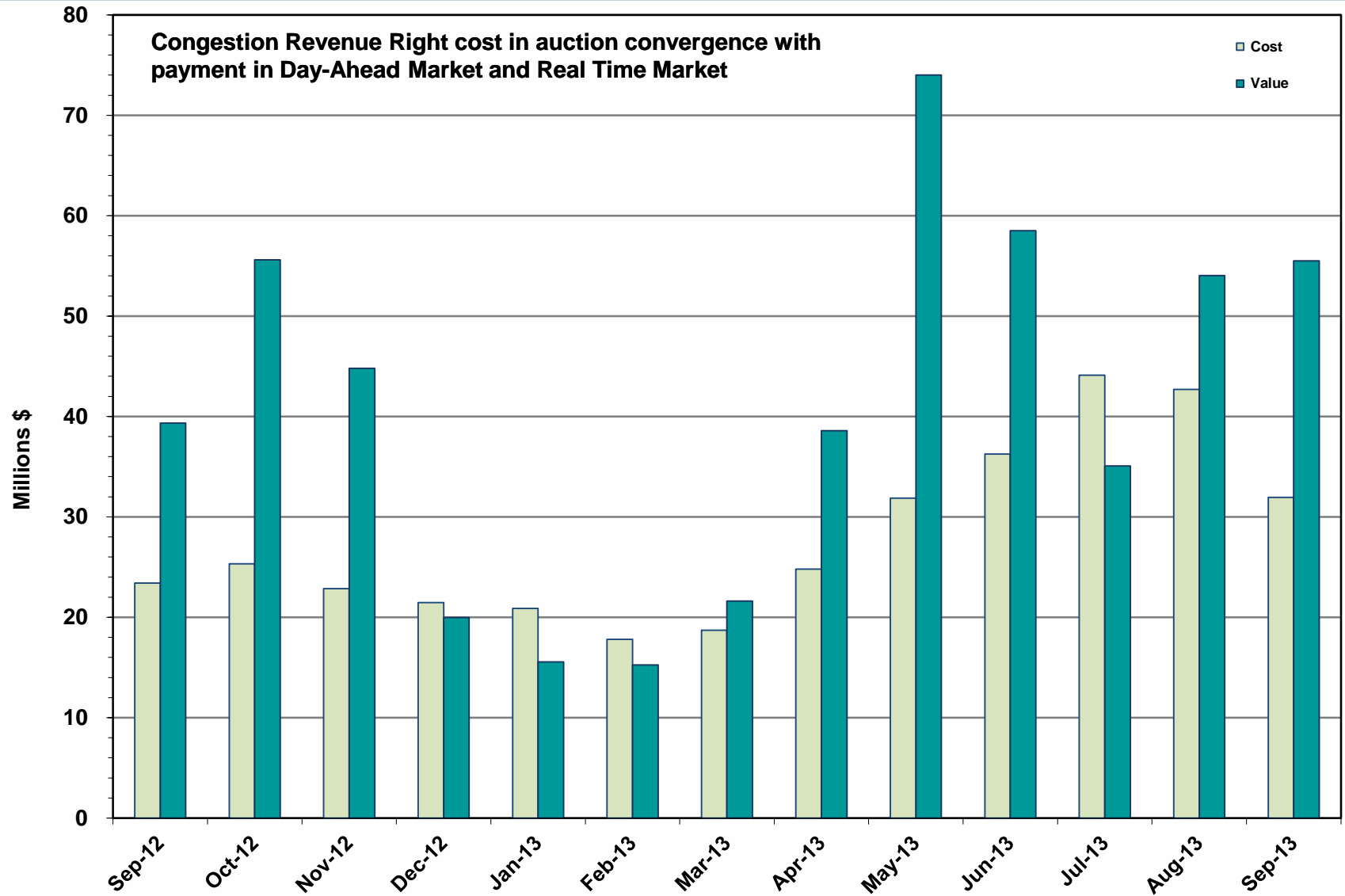
# HRUC Monthly Summary – September 2013



## Non-Spinning Reserve Service Deployment – September 2013

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

# CRR Price Convergence – September 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

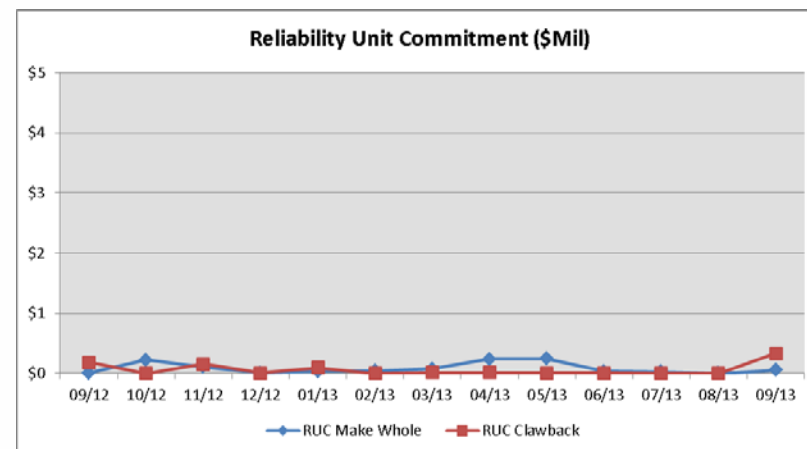


# Market Enhancements to Address IMM Recommendations – September 2013

Enhancement	Further Information
Adequate scarcity pricing in SCED using Operating Reserve Demand Curve: Hogan solution	<ul style="list-style-type: none"><li>On 9-19-2010, 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>A RATF workshop was conducted on this NPRR on 10-4-2013. Another workshop is scheduled for 10-11-2013</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 was implemented on 7-31-13</li><li>ERCOT is analyzing the results with stakeholders to identify any need for further improvements.</li></ul>

# Reliability Services – September 2013

Reliability Unit Commitment (RUC)	\$ in Millions
RUC Make-Whole Payments	(\$0.05)
RUC Clawback Charges	\$0.33
<b>RUC Commitment Settlement</b>	<b>\$0.28</b>
RUC Capacity Short Charges	\$0.05
RUC Make-Whole Uplift	\$0.00
<b>RUC Commitment Cost Allocation</b>	<b>\$0.00</b>
RUC Decommitment Payments	\$0.00



RUC Cost continues to trend low.

RUC Costs where a charge of \$0.28M in September 2013, compared to:

- A charge of \$0.00 in August 2013
- A charge of \$0.18 in September 2012



# Ancillary Services – September 2013

Capacity Services	\$ in Millions
Regulation Up Service	\$3.13
Regulation Down Service	\$0.91
Responsive Reserve Service	\$16.4
Non-Spinning Reserve Service	\$3.02
Black Start Service	\$0.49
Voltage Services - Reactive Power	\$0.0
Voltage Services - Lost Opportunity	\$0.0
<b>Total Capacity Service</b>	<b>\$23.94</b>

Capacity Services costs were down from last month and are more than September 2012.

September 2013 cost was \$23.94M, compared to:

- A charge of \$30.20M in August 2013
- A charge of \$22.15M in September 2012

# Energy Settlement – September 2013

Day-Ahead Market Energy Settlement	\$ in Millions
Energy Purchases	\$633.57
Point to Point Obligation Purchases	\$39.82
RMR Day-Ahead Revenue	\$0.00
Energy Sales	(\$620.98)
<b>Day-Ahead Congestion Rent</b>	\$52.41
Day-Ahead Market Make-Whole Payments	(\$0.14)

Real-Time Market Energy Settlement	\$ in Millions
Energy Imbalance at a Resource Node	(\$705.40)
Energy Imbalance at a Load Zone	\$1,047.15
Energy Imbalance at a Hub	(\$289.99)
Real Time Congestion from Self Schedules	\$0.06
Block Load Transfers and DC Ties	(\$12.44)
<b>Impact to Revenue Neutrality</b>	\$39.38
Emergency Energy Payments	(\$0.27)
Base Point Deviation Charges	\$0.38
Real-Time Metered Generation (MWh in millions)	30.88

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

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

# Congestion Revenue Rights (CRR) – September 2013

<b>Auction Disbursements</b>	<b>\$ in Millions</b>
Annual Auction	(\$22.17)
Monthly Auction	(\$6.29)
<b>Total Auction Revenue</b>	<b>(\$28.46)</b>
Day-Ahead CRR Settlement	(\$53.82)
Day-Ahead CRR Short-Charges	\$3.60
Day-Ahead CRR Short-Charges Refunded	(\$2.24)
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>(\$52.45)</b>
Day-Ahead Point to Point Obligations Settlement	\$39.82
Real-Time Point to Point Obligation Settlement	(\$44.01)
<b>Net Point to Point Obligation Settlement</b>	<b>(\$4.19)</b>

Congestion Revenue Rights were not fully funded and excess funds were not available for distribution to load.

Distribution of Balancing Account funds to load for September 2013 was \$0, compared to:

- \$4.42 M in August 2013
- \$10.92M in September 2012

Point to Point Obligations settled with a net gain of \$4.19M compared to a net charge of \$9.61M last month.

# Revenue Neutrality – September 2013

## Revenue Neutrality Settlement

\$ in Millions

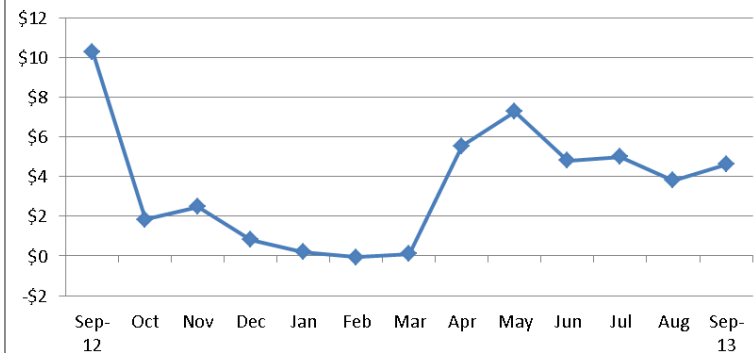
Real-Time Point to Point Obligation Settlement	(\$44.01)
Real-Time Point to Point Options and Options with Refund Settlement	(\$0.00)
Real-Time Energy Imbalance Settlement	\$51.76
Real-Time Congestion from Self-Schedules Settlement	\$0.06
DC Tie & Block Load Transfer Settlement	(\$12.44)
<b>Charge to Load</b>	<b>\$4.63</b>

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

September 2013 was a charge of \$4.63M, compared to:

- \$ 3.82M charge in August 2013
- \$10.29M charge in September 2012

Revenue Neutrality Uplift (\$Mil)



# Net Uplift to Load – September 2013

## Market-Based Uplifts

\$ in Millions

CRR Auction Revenue Disbursement Settlement	(\$28.46)
Balancing Account Proceeds Settlement	(\$0.00)
Net Reliability Unit Commitment Settlement	(\$0.28)
Ancillary Services Settlement	\$23.94
Reliability Must Run Services Settlement	\$0.0
Reliability Must Run for Capacity	\$0.0
Real-Time Revenue Neutrality Settlement	\$4.63
Emergency Energy Settlement	\$0.27
Base Point Deviation Settlement	(\$0.38)
<b>Total</b>	<b>(\$0.28)</b>

## Fee Uplifts

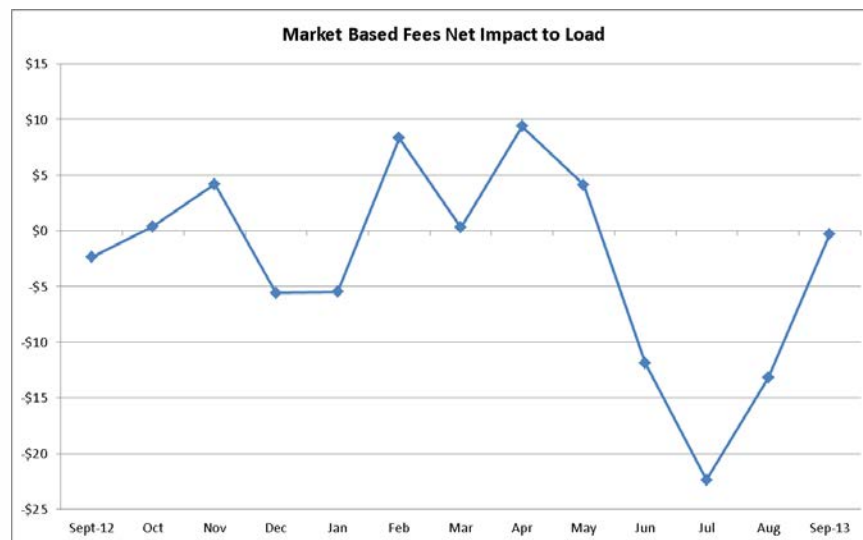
ERCOT Administrative Fee Settlement	\$13.03
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**Net Uplift Charge to Load \$12.75**

Net uplift to Load increased significantly from last month and increased from September of 2012

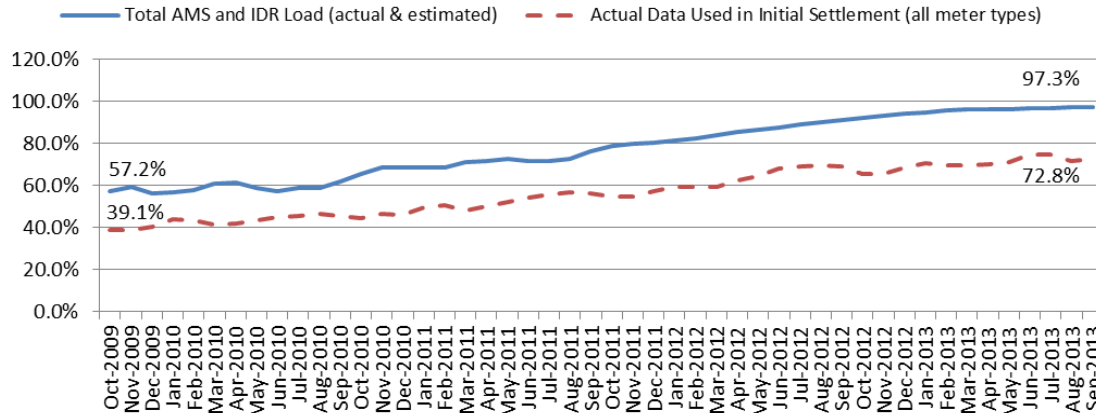
September 2013 was a charge of \$12.75M, compared to:

- A charge of \$1.67M in August 2013
- A charge of \$9.96M in September 2012



# Advanced Meter Settlement Impacts – September 2013

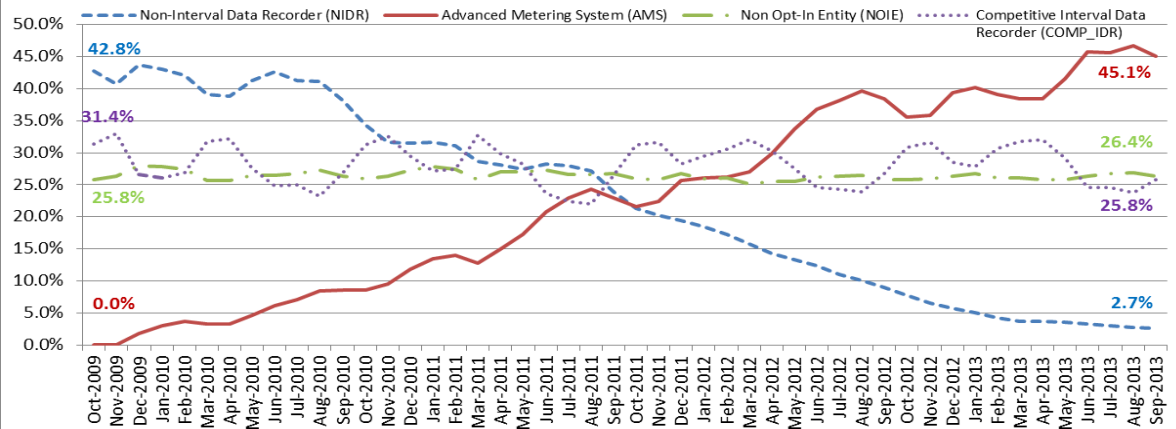
Percent Actual/Percent Interval Data Recorder (IDR)



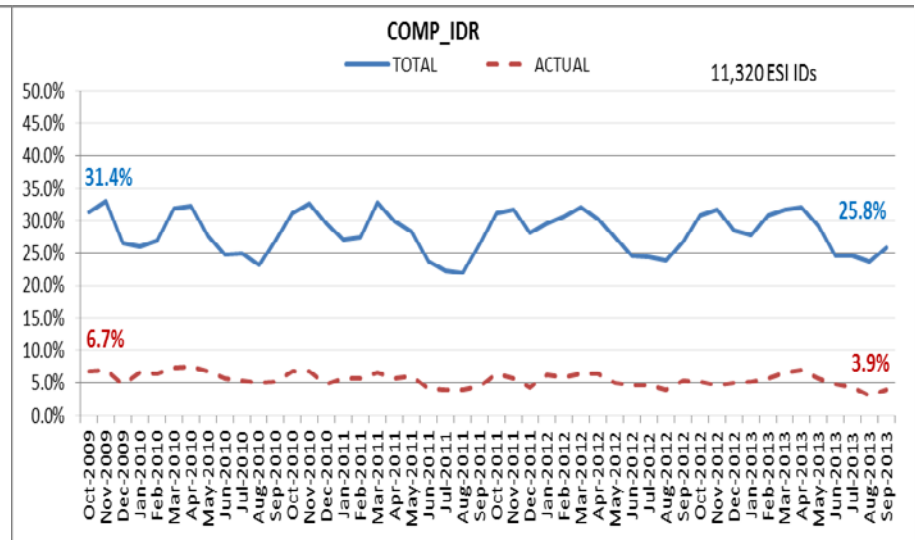
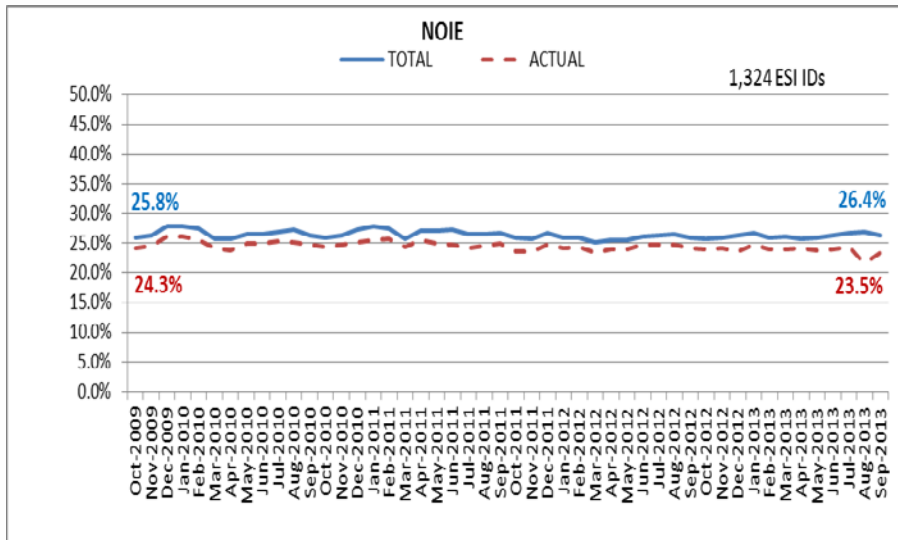
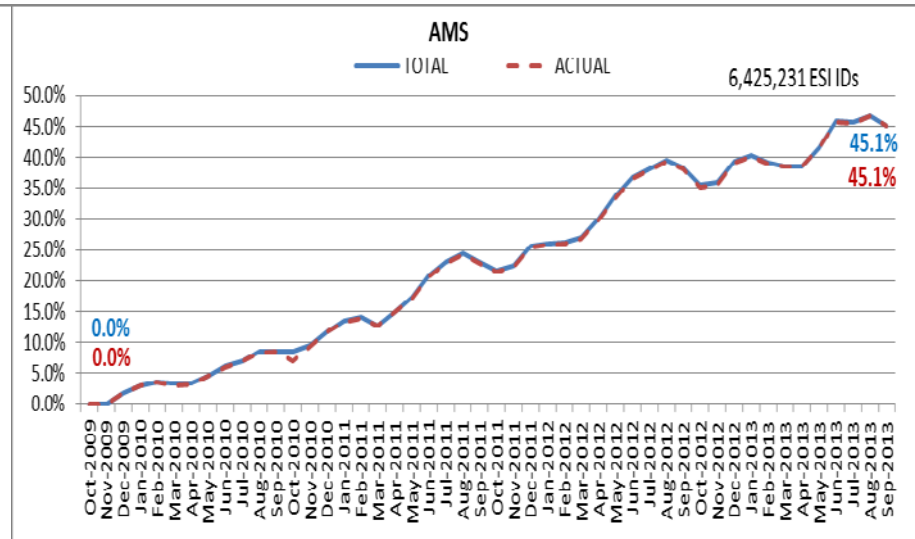
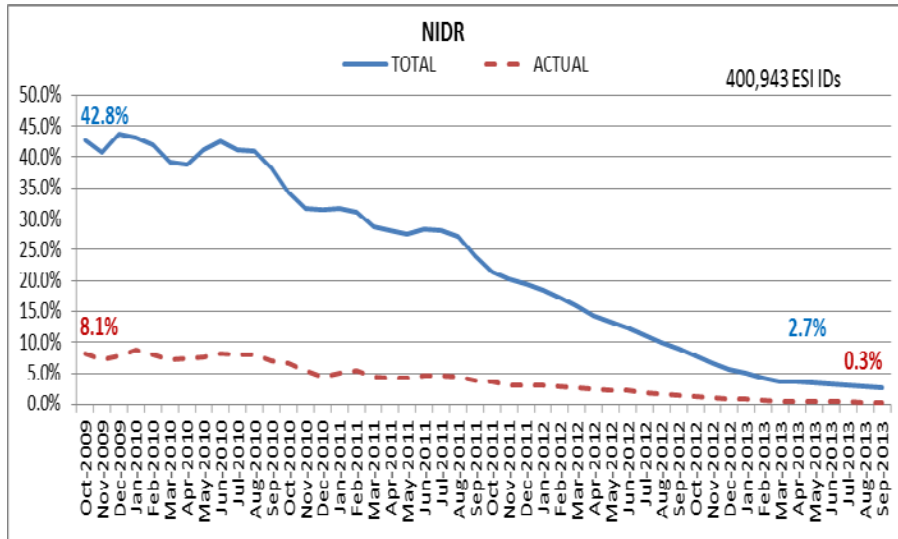
September 2013: At month end, settling 6.4M ESIIDs using Advanced Meter data.

September 2013: 97.3% 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 – September 2013



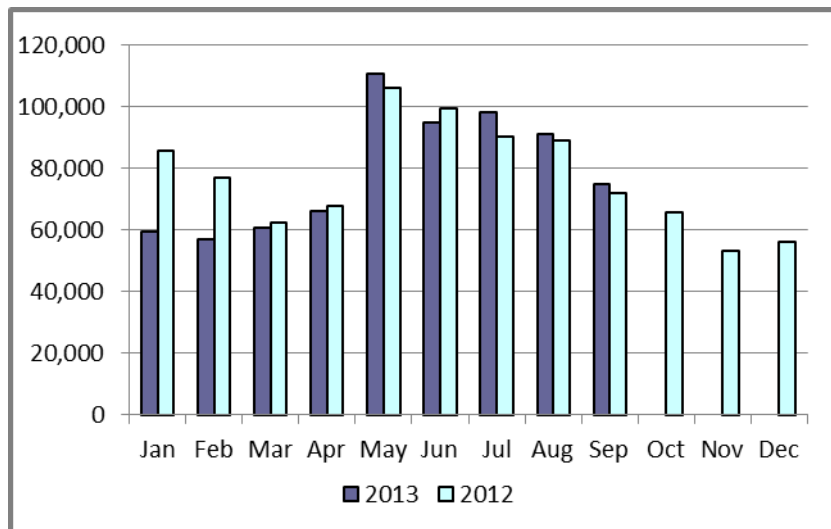
# Retail Transaction Volumes – Summary – September 2013

Transaction Type	Year-To-Date		Transactions Completed	
	September 2013	September 2012	September 2013	September 2012
Switches	712,274	749,596	74,842	71,789
Acquisition	134	0	0	0
Move - Ins	1,800,169	1,707,310	197,898	184,288
Move - Outs	879,132	842,922	100,910	91,992
Continuous Service Agreements (CSA)	386,273	555,364	39,759	51,377
Mass Transitions	0	5,518	0	0
<b>Total</b>	<b>3,777,982</b>	<b>3,860,710</b>	<b>413,409</b>	<b>399,406</b>
<b>Total since June 1, 2001</b>	<b>53,669,508</b>			

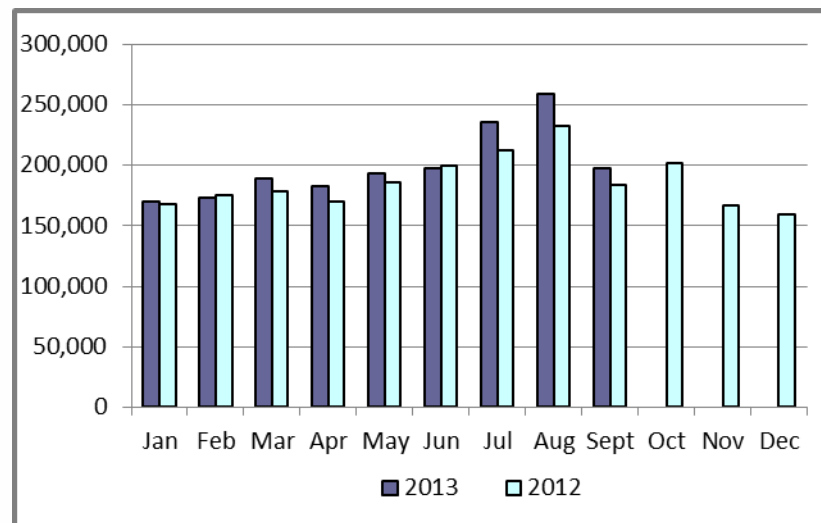


# Retail Transaction Volumes – Summary – September 2013

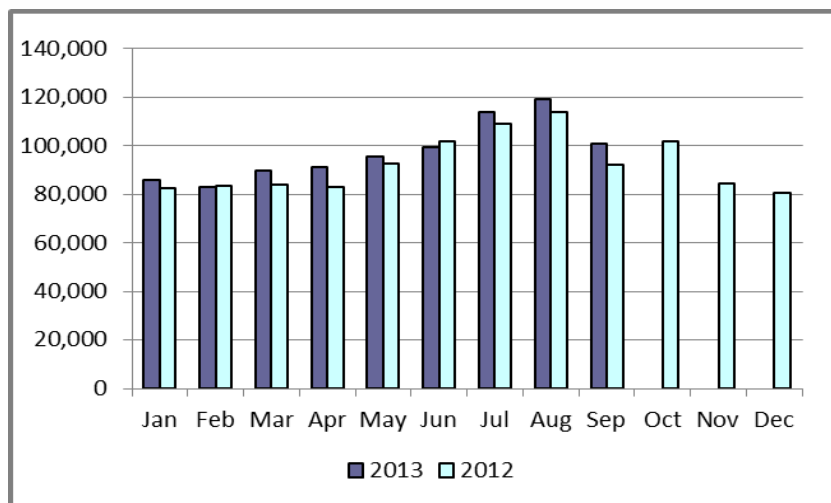
## Switches/Acquisitions



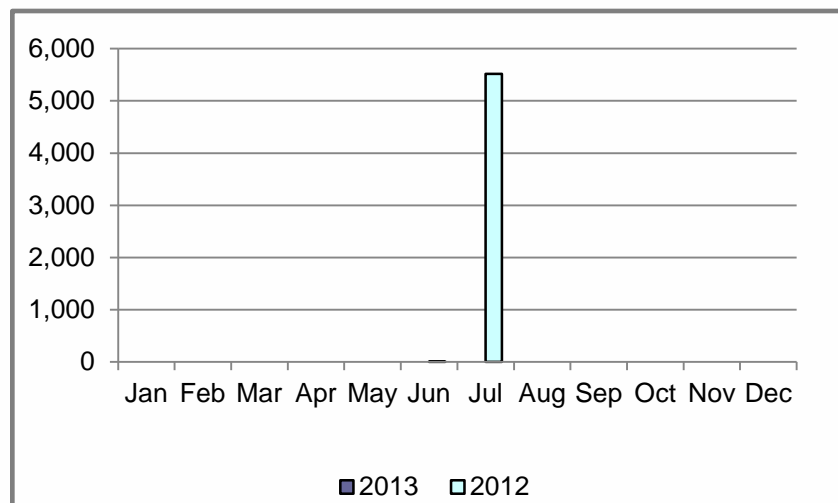
## Move-Ins



## Move-Outs

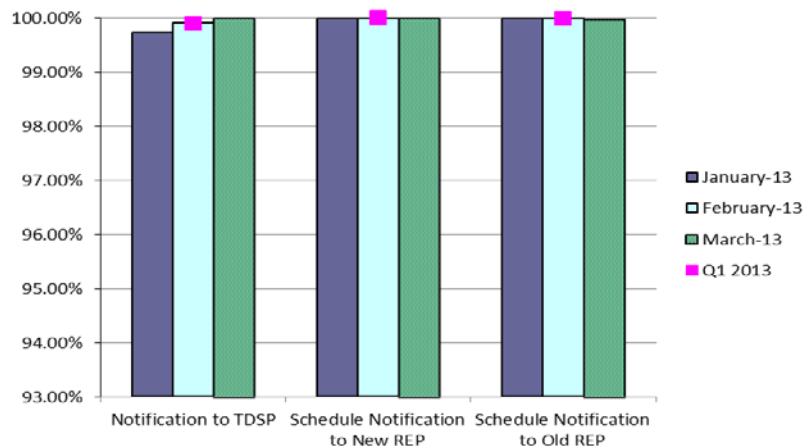


## Mass Transition

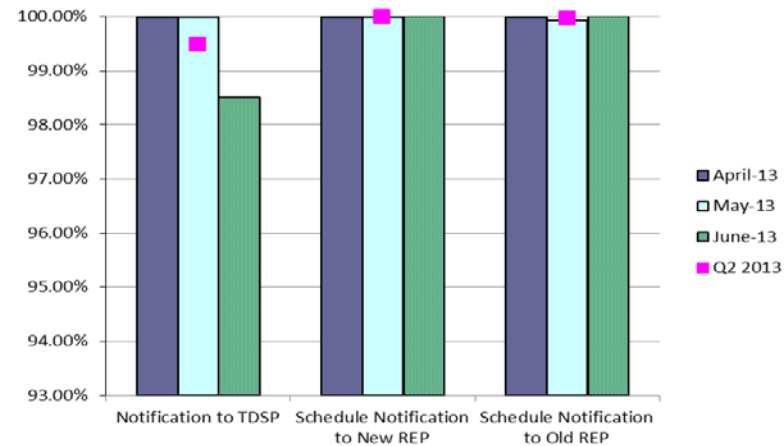


# Retail Performance Measures – Switch – September 2013

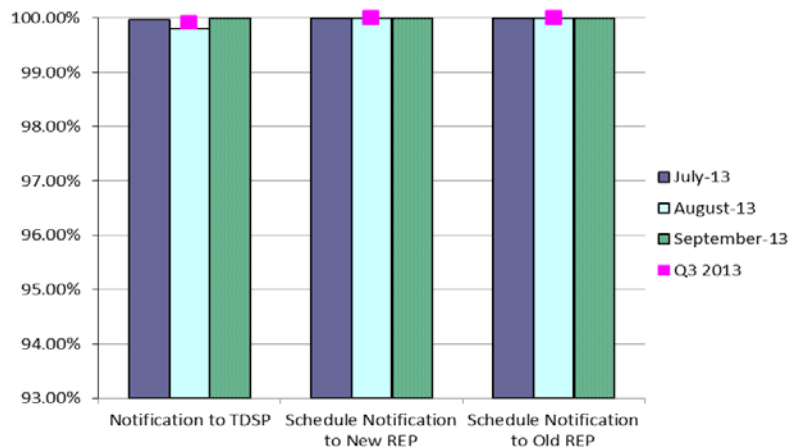
## 1<sup>st</sup> Quarter



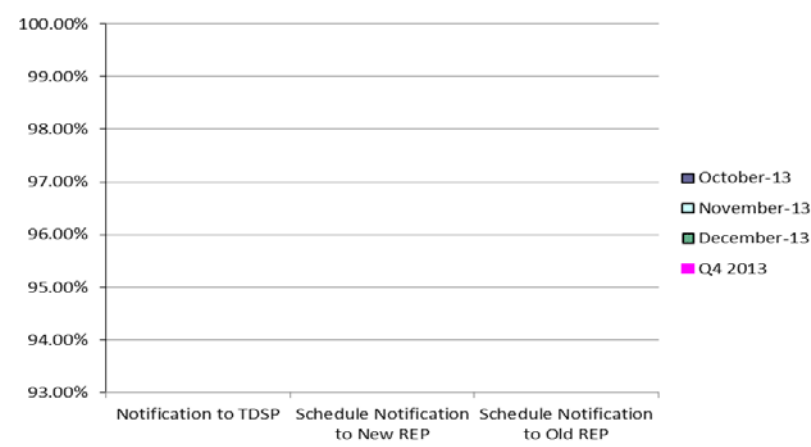
## 2<sup>nd</sup> Quarter



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

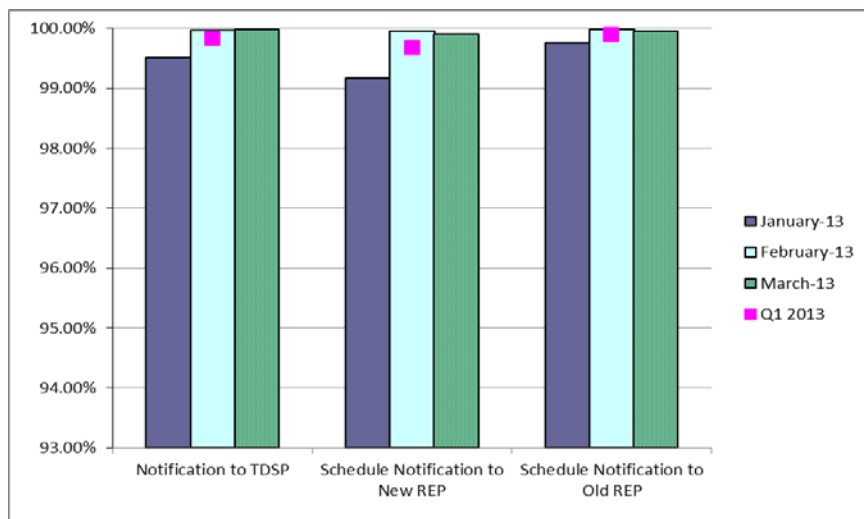


## 4<sup>th</sup> Quarter

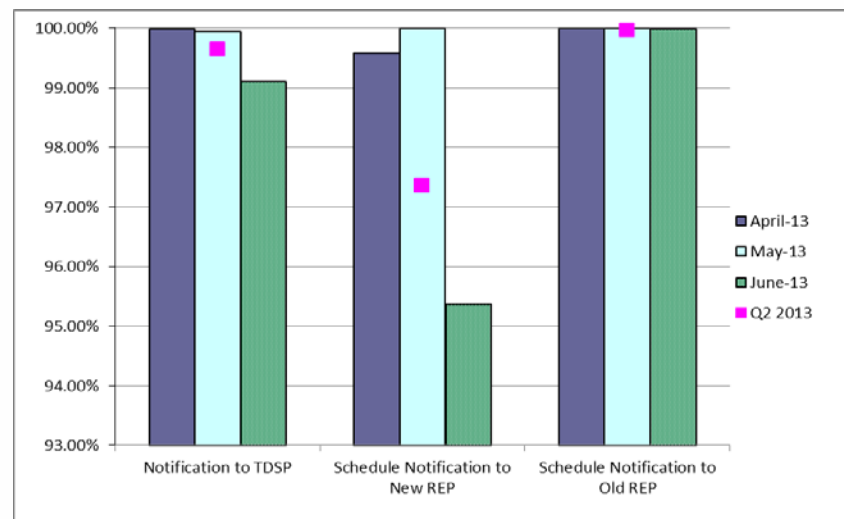


# Retail Performance Measures (Same Day Move-In) – September 2013

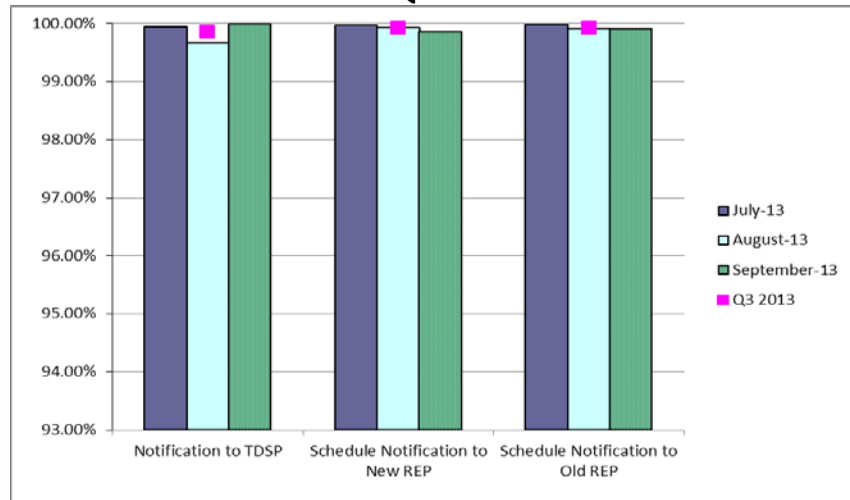
## 1<sup>st</sup> Quarter



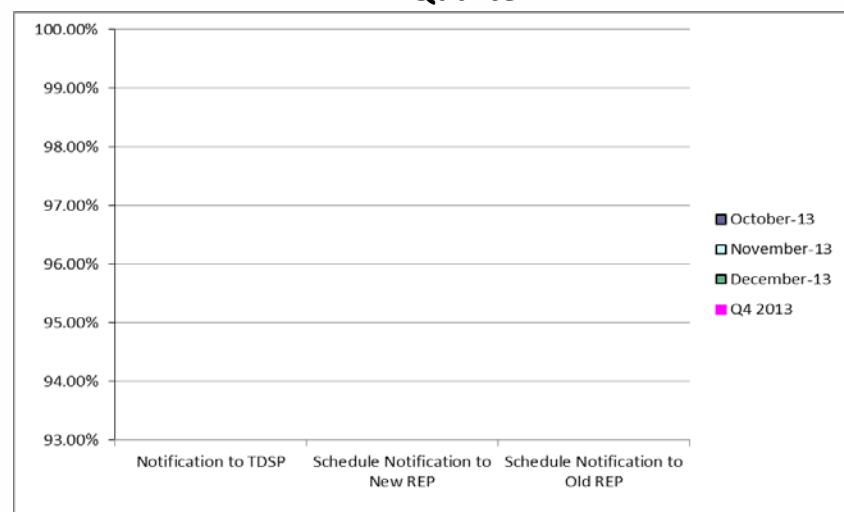
## 2<sup>nd</sup> Quarter



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

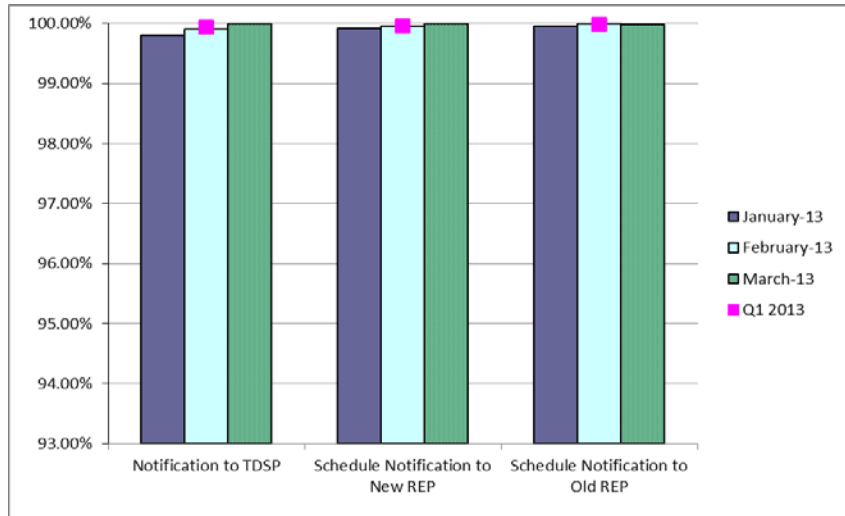


## 4<sup>th</sup> Quarter

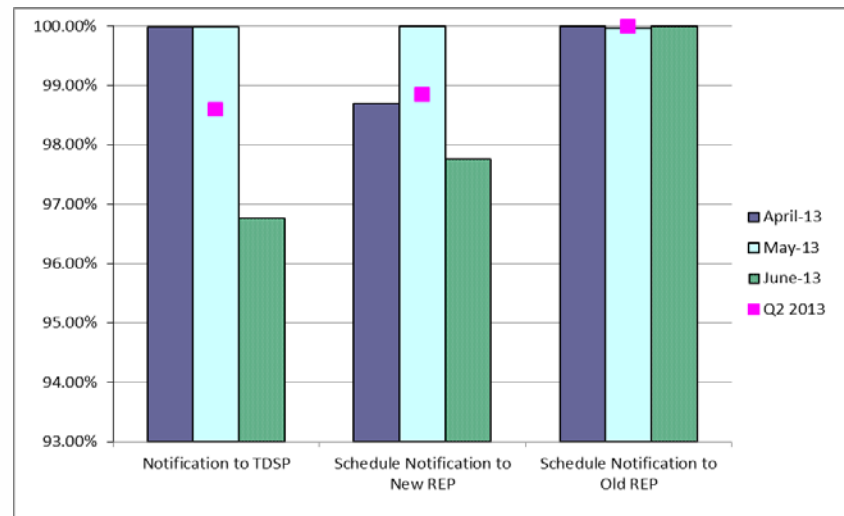


# Retail Performance Measures (Standard Move-In) – September 2013

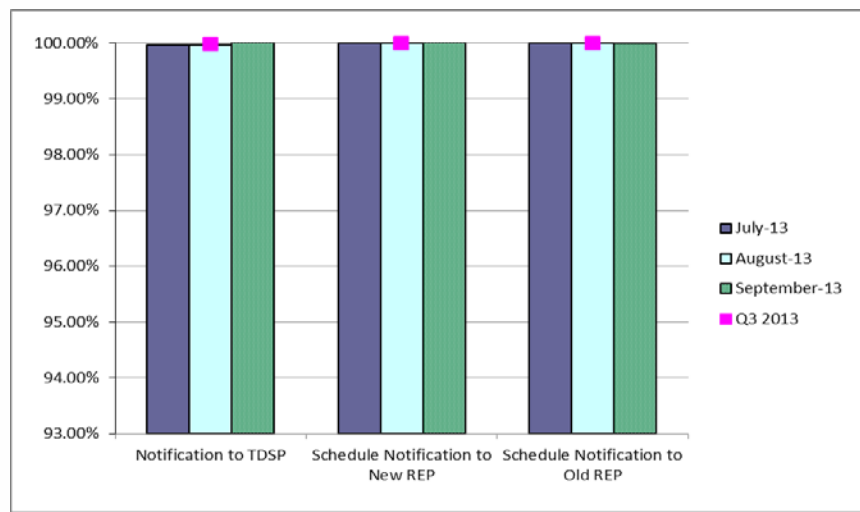
## 1<sup>st</sup> Quarter



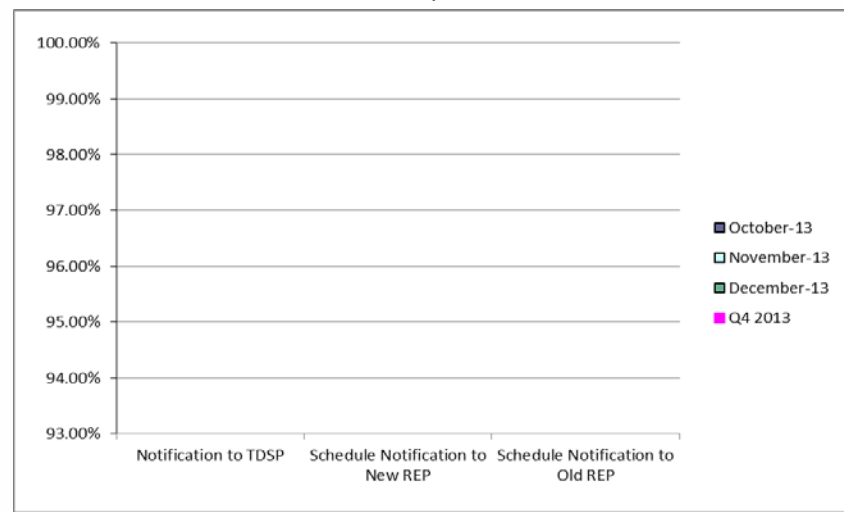
## 2<sup>nd</sup> Quarter



## 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 10/11/2013)

PROJECTS IN FLIGHT (Count = 56) Sorted by Phase / Project Num								\$ 16,039,435	\$ 13,986,948	12%	\$ 38,889,433	\$ 36,498,560	6%
Project Number	Projects in Initiation Phase	Phase	Schedule dates as of 10/10/2013							2013 Variance			Total Variance
107-01	IBM AIX Operating System Upgrades	Initiation								49%			10%
114-01	Lawson Security	Initiation								67%			2%
115-01	Intrusion Prevention System	Initiation								93%			0%
116-01	Collage Replacement	Initiation								0%			0%
119-01	CREZ Voltage Control and Coordination	Initiation								0%			0%
TBD	IT Production Hardening	Initiation								0%			0%
118-01	Mitigation Plan RTCA Enhancements	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%
NOGRR105	Generation Resource Frequency Response Test Procedure	Initiation								40%			16%
OBD	Setting the Shadow Price Caps and Power Balance Penalties in Security-Constrained Economic Dispatch	Initiation								0%			0%
SCR756	MarkeTrak Enhancements - Remaining SCR756 Items	Initiation								-2%			12%
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
016-01	ADP-IDM Interface	Planning	8/28/2013	11/6/2013	TBD	11/6/2013	0%			61%			9%
052-01	EMS Upgrade	Planning Ph2	8/7/2013	6/30/2014	TBD	6/18/2014	3%			17%			0%
065-01	NMMS Upgrade	Planning	5/1/2013	3/1/2014	TBD	3/1/2014	0%			19%			43%
066-01	Planning Site Transition to MIS	Planning	1/9/2013	3/25/2013	TBD	10/9/2013	3 -264%			32%			30%
097-01	ABB MMS OS Technology Refresh	Planning	5/29/2013	11/20/2013	TBD	12/13/2013	1 -13%			36%			56%
104-01	Disaster Recovery: S&B, RTL, MDT	Planning	5/15/2013	11/15/2013	TBD	11/19/2013	-2%			0%			0%
106-01	MP Online Data Entry - Ph 1	Planning	10/9/2013	3/5/2014	TBD	3/5/2014	0%			0%			24%
108-01	Alstom Load Forecasting Upgrade	Planning	9/11/2013	11/27/2013	TBD	11/20/2013	9%			43%			16%
110-01	Taylor Control Room Upgrade	Planning	10/9/2013	2/19/2014	TBD	2/19/2014	0%			58%			2%
111-01	Quality Center Upgrade	Planning	8/28/2013	10/30/2013	TBD	10/30/2013	0%			17%			17%
113-01	Dev Hardware Refresh and Virtualization Expansion	Planning	9/11/2013	11/6/2013	TBD	10/22/2013	26%			29%			3%



# ERCOT Portfolio Stoplight Report (as of 10/11/2013)

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
017-01	Oracle 11g Upgrade	Execution	10/10/2012	4/2/2014	3/31/2014	3/31/2014	0%			0%		-4%
038-01	Macomber Map NERC SA/Compliance Enhancements	Execution	9/19/2012	12/7/2012	12/2/2013	12/31/2013	1 -455%			1 -16%		1 -6%
047-01	CMSDK/MIR Replacement	Execution	4/24/2013	12/8/2013	11/26/2013	12/16/2013	5%			3 -7%		-4%
057-01	EPS Metering DB Redesign	Execution	4/17/2013	9/6/2013	8/1/2014	9/1/2014	3 -231%			2%		1%
058-01	Security Information and Event Management (SIEM) Upgrade	Execution	5/8/2013	11/15/2013	11/15/2013	1/29/2014	0%			56%		32%
075-01	Operator Data Display	Execution	4/10/2013	12/8/2013	12/8/2013	12/12/2013	0%			39%		40%
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%			14%		5%
088-0x	Capital Efficiencies and Enhancements - 2013	Execution	8/16/2012	12/31/2013	12/31/2013	12/31/2013	0%			0%		0%
109-01	OTS Forum Hotline	Execution	10/2/2013	11/4/2013	11/4/2013	12/5/2013	0%			0%		0%
10052_01	Settlement System Upgrade	Execution	1/25/2012	10/10/2014	10/10/2014	3/3/2015	0%			11%		-3%
2013 PC	Program Control - 2013	Execution	8/16/2012	12/31/2013	12/31/2013	12/31/2013	0%			2%		2%
99913	Minor Cap - 2013	Execution	1/1/2013	12/31/2013	12/31/2013	12/31/2013	0%			6 -29%		6 -29%
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%			24%		23%
NPRR425	Creation of a WGR Group for GREDP and Base Point Deviation Evaluation	Execution	8/21/2013	2/28/2014	2/28/2014	3/10/2014	0%			32%		29%
NPRR476	Market Submitted Energy Offer Curves Disclosures	Execution	8/28/2013	12/11/2013	12/11/2013	1/8/2014	0%			7%		6%
NPRR484	Revisions to Congestion Revenue Rights Credit Calculations and Payments	Execution	7/17/2013	10/21/2013	10/21/2013	12/31/2013	0%			20%		3 -9%
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%
072-01	OSI PI Upgrades - EMS Production	Execution	4/17/2013	10/1/2013	10/2/2013	11/1/2013	0%			0%		0%
081-01	Additional Resource Data for Outage Scheduler	Execution	5/29/2013	9/26/2013	9/24/2013	11/6/2013	1%			26%		26%
095-01	Mobile Application Enhancement	Execution	5/8/2013	9/5/2013	8/16/2013	10/21/2013	16%			3 -7%		3 -7%
098-01	EPG Synchrophasor Upgrade	Execution	5/8/2013	9/16/2013	9/16/2013	10/2/2013	0%			2%		1%
099-01	Moody's Analytics	Execution	5/15/2013	10/14/2013	9/14/2013	10/24/2013	19%			30%		19%
NPRR207	Unit Deselection	Execution	5/22/2013	9/26/2013	9/26/2013	10/16/2013	0%			21%		21%
NPRR385	Negative Price Floor	Execution	5/22/2013	9/26/2013	9/26/2013	10/25/2013	0%			34%		34%
NPRR457	Daily Update of New ESI IDs and AMS Meter and Switch Hold Indicators Changes	Execution	4/10/2013	9/29/2013	9/26/2013	10/16/2013	1%			32%		32%
NPRR479	Daily Net Outage MW	Execution	4/10/2013	9/29/2013	9/30/2013	10/24/2013	0%			6%		6%
NPRR514	Seasonal Generation Resource	Execution	6/5/2013	9/29/2013	9/29/2013	10/29/2013	0%			2%		2%
NOGRR101	Market Notice for DC-TIE Outage Information	Execution	7/24/2013	9/27/2013	9/27/2013	10/30/2013	0%					
SCR770	Revision to Outage Scheduling Entry for Resource Maintenance Outage Level Designation	Execution	3/14/2013	9/27/2013	9/24/2013	11/16/2013	1%			57%		58%



# ERCOT Portfolio Stoplight Report (as of 10/11/2013)

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 = 6) Sorted by Project Number								\$ 779,912	\$ 207,586		\$ 865,477	\$ 776,285	
070-01	Linux Configuration Management Tool	On Hold	1/24/2013	6/26/2013	TBD	TBD	4			87%			0%
071-01	Windows Server Systems Management	On Hold	1/23/2013	6/26/2013	TBD	TBD	4			94%			0%
089-01	Information Technology Change Management	On Hold	4/10/2013	5/29/2013	TBD	TBD	4			86%			19%
101-01	Emergency Notification System Hardware Refresh	On Hold	5/8/2013	8/22/2013	TBD	TBD	4			3 -8%		3 -25%	
NPRR153	Generation Resource Fixed Quantity Block Offer	On Hold	4/10/2013	5/24/2013	TBD	TBD	4			85%			85%
NPRR327	State Estimator Data Redaction Methodology	On Hold	12/5/2012	2/12/2013	TBD	TBD	4			0%			28%
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 = 19) Sorted by Start Date								\$ 183,221	\$ 165,867		\$ 3,593,690	\$ 3,631,130	
TBD	ERCOT Native Load Calculation	Not Started	Oct 2013										
TBD	Enterprise Vault Upgrade	Not Started	Oct 2013										
TBD	Email Redundancy	Not Started	Oct 2013										
TBD	Infoblox DNS/DHCP	Not Started	Oct 2013										
TBD	Net Backup Architecture Redesign	Not Started	Oct 2013										
NPRR407	Credit Monitoring Posting Requirements - CRR Portion	Not Started	Nov 2013										
SCR769	CRRRAH 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										
TBD	Mobile Device Management	Not Started	Oct 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										
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 10/11/2013)

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 = 34) Sorted by Project</b>								<b>\$ 3,195,484</b>	<b>\$ 2,232,287</b>	<b>30%</b>	<b>\$ 9,712,845</b>	<b>\$ 7,831,421</b>	<b>19%</b>
NPRR393	SCED Constraint Management Transparency	Closing	3/13/2013	8/8/2013	8/8/2013	10/11/2013	0%			3			3
NPRR520	Real-Time Mitigation Rules and Creation of a Real-Time Constraint Competitiveness Test	Closing	5/1/2013	8/1/2013	8/1/2013	6/22/2013	0%			29%			28%
NPRR461	Energy Storage Settlements Consistent with PUCT Project 39917	Closing	3/13/2013	7/30/2013	7/30/2013	8/20/2013	0%			1%			2%
010-02	MarketTrak Upgrade	Closing	12/12/2012	6/22/2013	6/22/2013	6/28/2013	0%			4%			4%
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
NPRR377	Alternate Inputs to Base Point Deviation Charge	Complete	9/26/2012	2/15/2013	2/15/2013	3/13/2013	0%			74%			28%
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%
NPRR463	CRR 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%
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%		2			0%
009-01	Compliance Software Tool	Complete	12/1/2011	11/30/2012	12/19/2012	12/19/2012	1	-5%		2			20%
019-01	ERCOT Website Enhancements - 2012	Complete	3/8/2012	12/26/2012	5/1/2013	4/24/2013	3	-43%					3
020-01	CIM Upgrade for NMMIS	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	CRR Upgrade to v12.3	Complete	5/16/2012	4/1/2013	4/1/2013	8/21/2013	0%			69%			37%
043-01	Met Center Lease Reconfiguration	Complete	9/12/2012	12/19/2012	12/19/2012	12/19/2012	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	-2%			39%			39%

## SUMMARY

		Sum of 2013 Budgets	2013 Forecast Spend	Sum of Total Budgets	Total Forecast Spend
5%	KPI Budget Measure - Execution/Completed Projects	Projects in Flight \$ 16,039,435	\$ 13,986,948	\$ 38,889,433	\$ 36,498,560
		Projects Not Yet Started \$ 183,221	\$ 165,867	\$ 3,593,690	\$ 3,631,130
6%	KPI Schedule Measure - Execution/Completed Project	Projects Completed \$ 3,195,484	\$ 2,232,287	\$ 9,712,845	\$ 7,831,421
		<b>TOTAL \$ 19,418,140</b>	<b>\$ 16,385,102</b>	<b>\$ 52,195,968</b>	<b>\$ 47,961,111</b>
		<b>Project Funding \$ 16,000,000</b>			

## 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 temporary 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

