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

ERCOT Public  
June 15, 2013

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# **Grid Operations & Planning**

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# Summary – May 2013

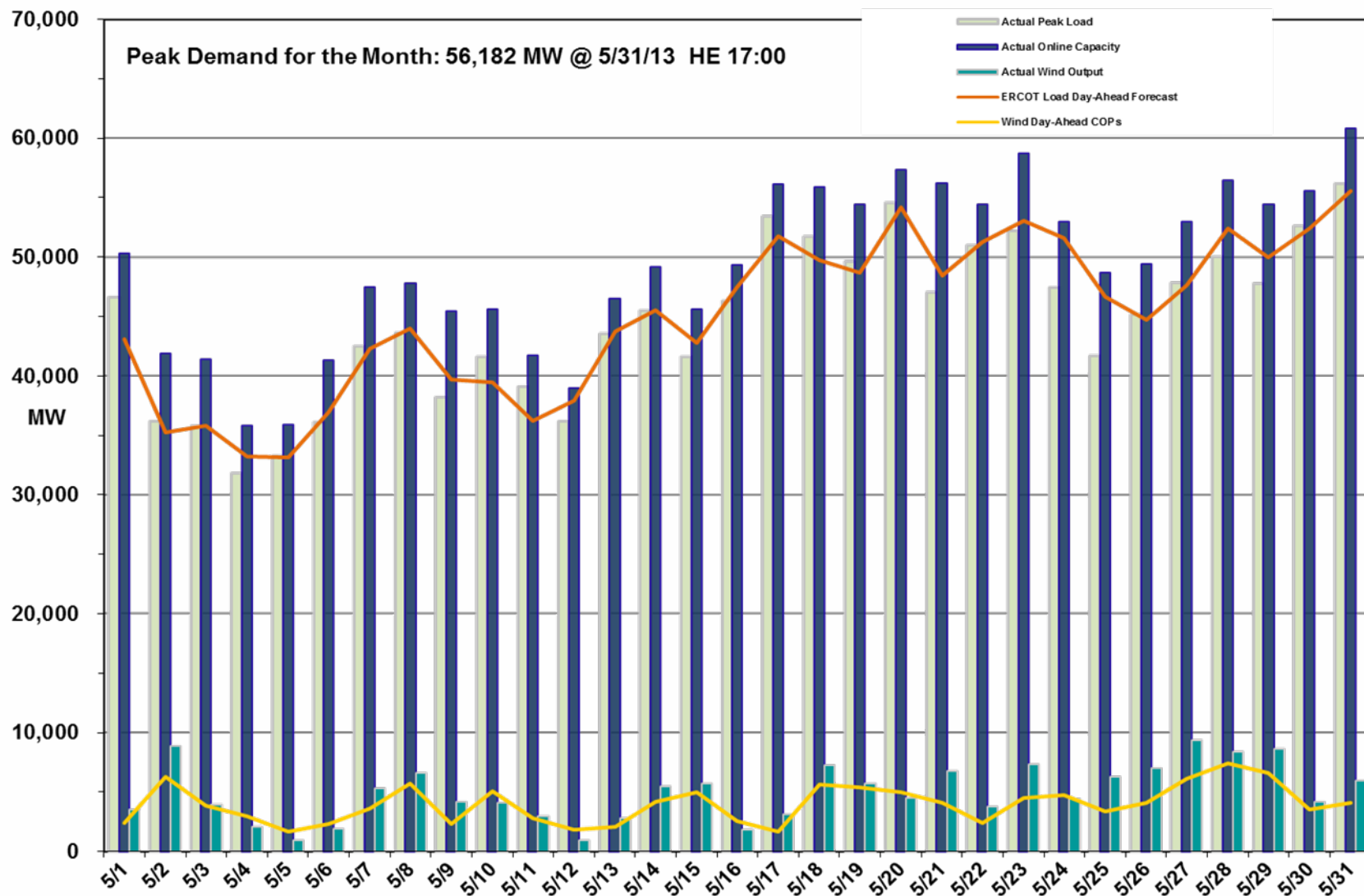
## Operations

- The peak demand of 56,182 MW on May 31st was more than the mid-term forecast peak of 55,549 MW and less than the May 2012 actual peak demand of 59,031 MW. The instantaneous load on May 31st was 56,410 MW.
- Day-ahead load forecast error for February was 3.12%
- ERCOT issued two Advisories due to Voltage Security Assessment Tool (VSAT) not solving for 30 minutes during each event.
- No Watches were issued
- No Energy Emergency Alert (EEA) events

## Planning Activities

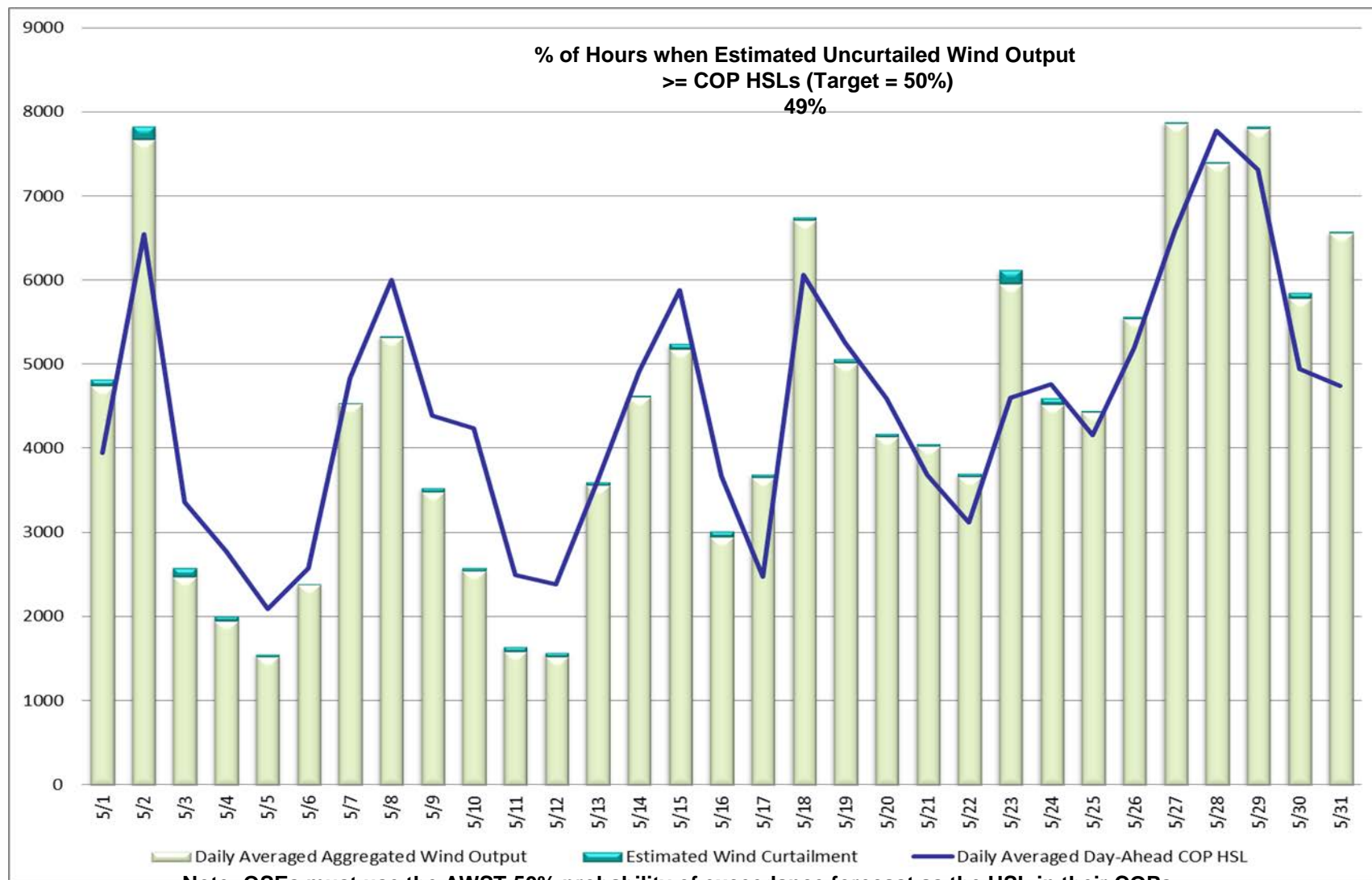
- ERCOT is currently tracking 158 active generation interconnection requests totaling over 48,000 MW. This includes over 20,000 MW of wind generation.
- 10,570 MW wind capacity in commercial operation May 31, 2013; no change from April 30, 2013

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



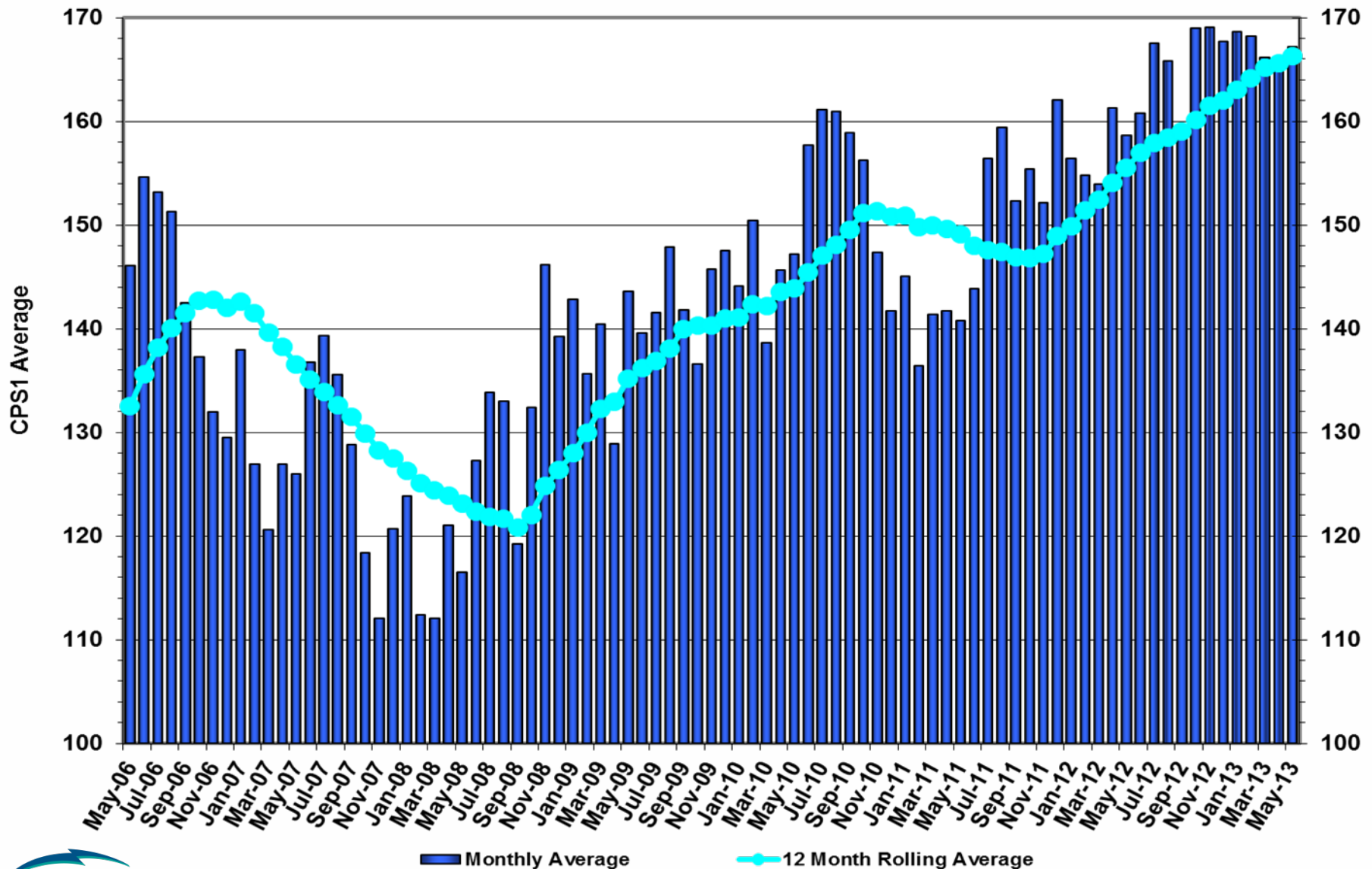
Note: All data are hourly averages during the peak load hour obtained from COPs, and EMMS.

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



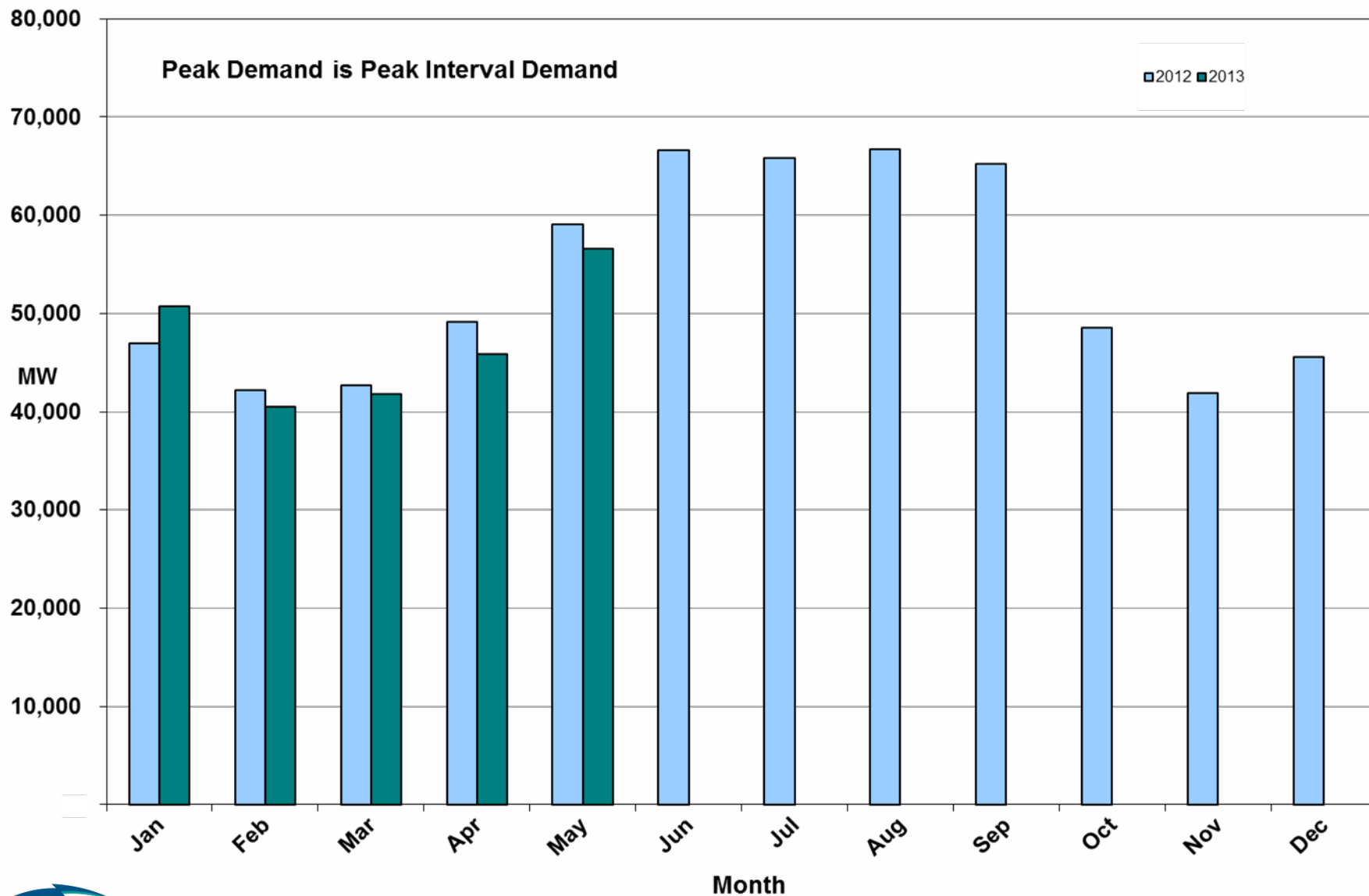
**Note: QSEs must use the AWST 50% probability of exceedance forecast as the HSL in their COPs**

# ERCOT's CPS1 Monthly Performance – May 2013

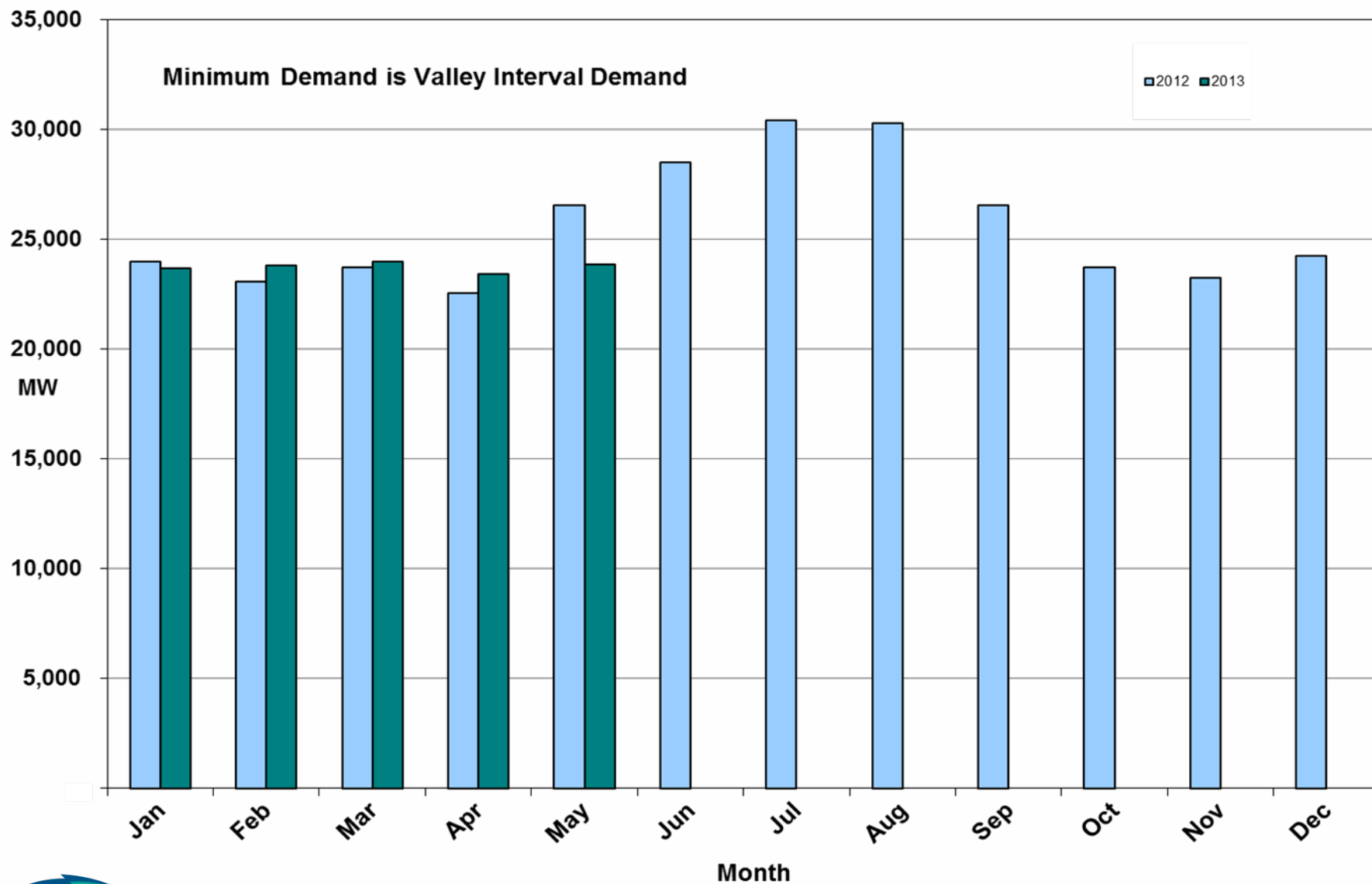


ERCOT Public

## Monthly Peak Actual Demand – May 2013



## Monthly Minimum Actual Demand – May 2013



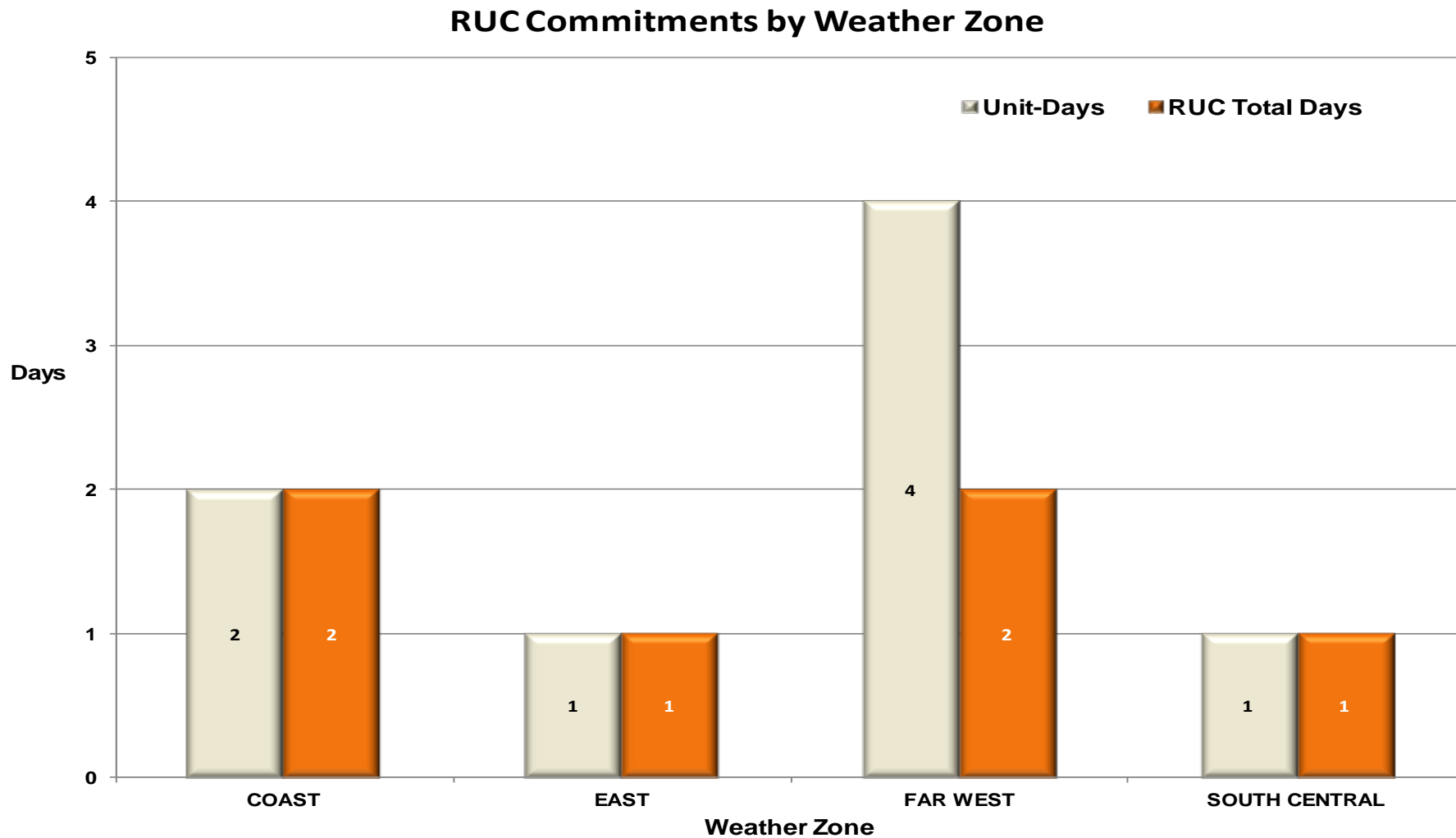


## Day-Ahead Load Forecast Performance – May 2013

**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>May 2013 MAPE</b>	
<b>Average Annual MAPE</b>	<b>2.83</b>	<b>2.83</b>	<b>3.02</b>	<b>2.99</b>	<b>3.12</b>	
<b>Lowest Monthly MAPE</b>	<b>2.24</b>	<b>1.63</b>	<b>2.51</b>	<b>2.68</b>	<b>Lowest Daily MAPE</b>	<b>0.77</b> May – 13
<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>6.25</b> May – 24

## Reliability Unit Commitment (RUC) Capacity by Weather Zone – May 2013



## Generic Transmission Limits (GTLs) – May 2013

GTLs	May 12 Days GTLs	Mar 13 Days GTLs	Apr 13 Days GTLs	May 13 Days GTLs	Last 12 Months Total Days (May12 – May13)
North – Houston	0	0	0	0	0
West – North	18	9	7	3 May(2,24,26)	110
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 – May 2013

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- Advisories issued for Physical Responsive Capability (PRC) below 3000 MW.
  - None
- Watches issued for Physical Responsive Capability (PRC) below 2500 MW.
  - Issued two days (05/08, 05/29)
- Transmission Watches
  - Issued for twelve days (05/08–10, 05/15-17, 05/21-23, 05/30)
- Emergency Notice
  - Issued one day (05/08)
- Energy Emergency Alerts
  - None

## Significant Events – May 2013

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- No significant events to report

# Lake Levels Update – June 1, 2013

Surface Water & (MW)	*Level @ Full Conservation Pool	*Level on Jan 1, 2011	*Level on Oct 7, 2011	*Level on Jun 1, 2013
Lake Texana (56)	44.50	41.00	32.81	43.18
Bardwell Lake (312)	421.00	420.71	416.23	418.37
Lake Colorado City (407)	2,070.20	2057.33	2052.4	2051.49
Lake Ray Hubbard (916)	435.50	432.37	429.22	432.70
Lake Granbury (983)	693.00	691.90	686.27	685.83
Lake Houston (1016)	41.73	42.10	36.76	41.58
Twin Oaks Reservoir (1616)	400	398.87	398.27	400.12
Lake Limestone (1689)	363	359.03	354	359.03
Martin Lake (2425)	306	300.48	295.06	304.23

\* In Feet above Mean Sea Level

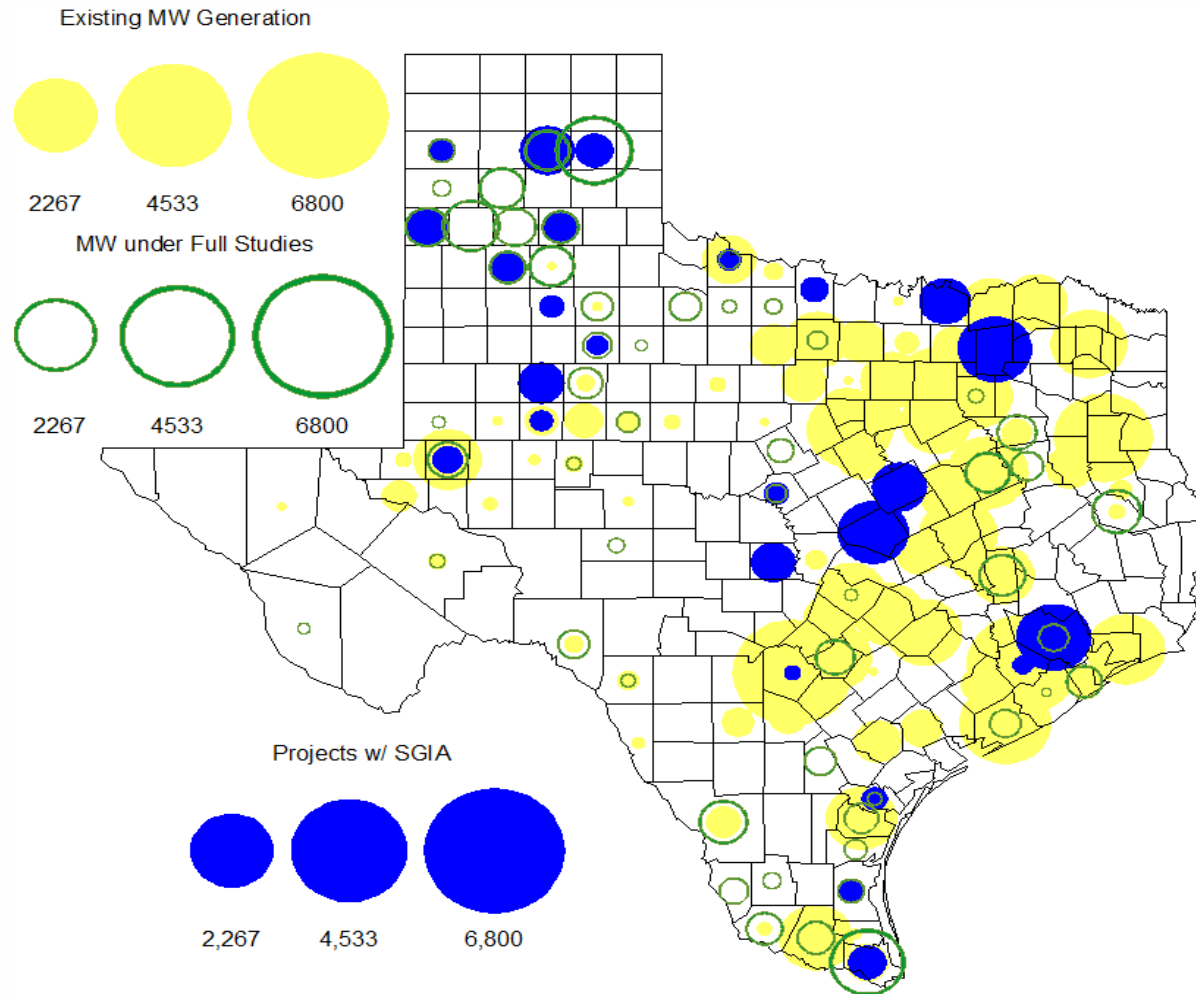


## Planning Summary – May 2013

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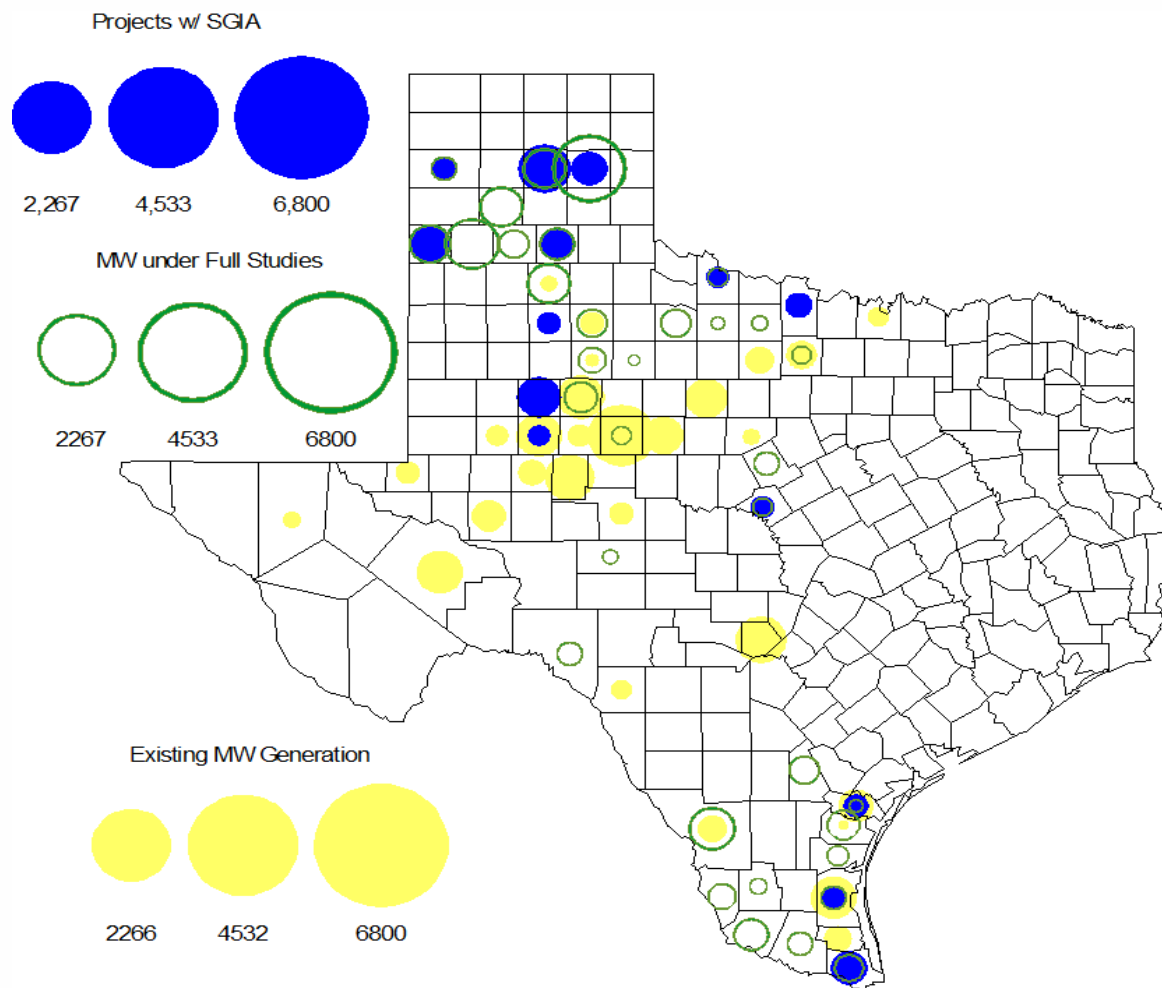
- ERCOT is currently tracking 158 active generation interconnection requests totaling over 48,000 MW. This includes over 20,000 MW of wind generation.
- ERCOT is currently reviewing proposed transmission improvements with a total cost of \$81.2 Million
- Transmission Projects endorsed in 2013 total \$349.8 Million
- All projects (in engineering, routing, licensing and construction) total approximately \$9.68 Billion.
- Transmission Projects energized in 2013 total about \$38.6 million.

# County Location of Planned Generation with Interconnection Requests (all fuels) – May 2013

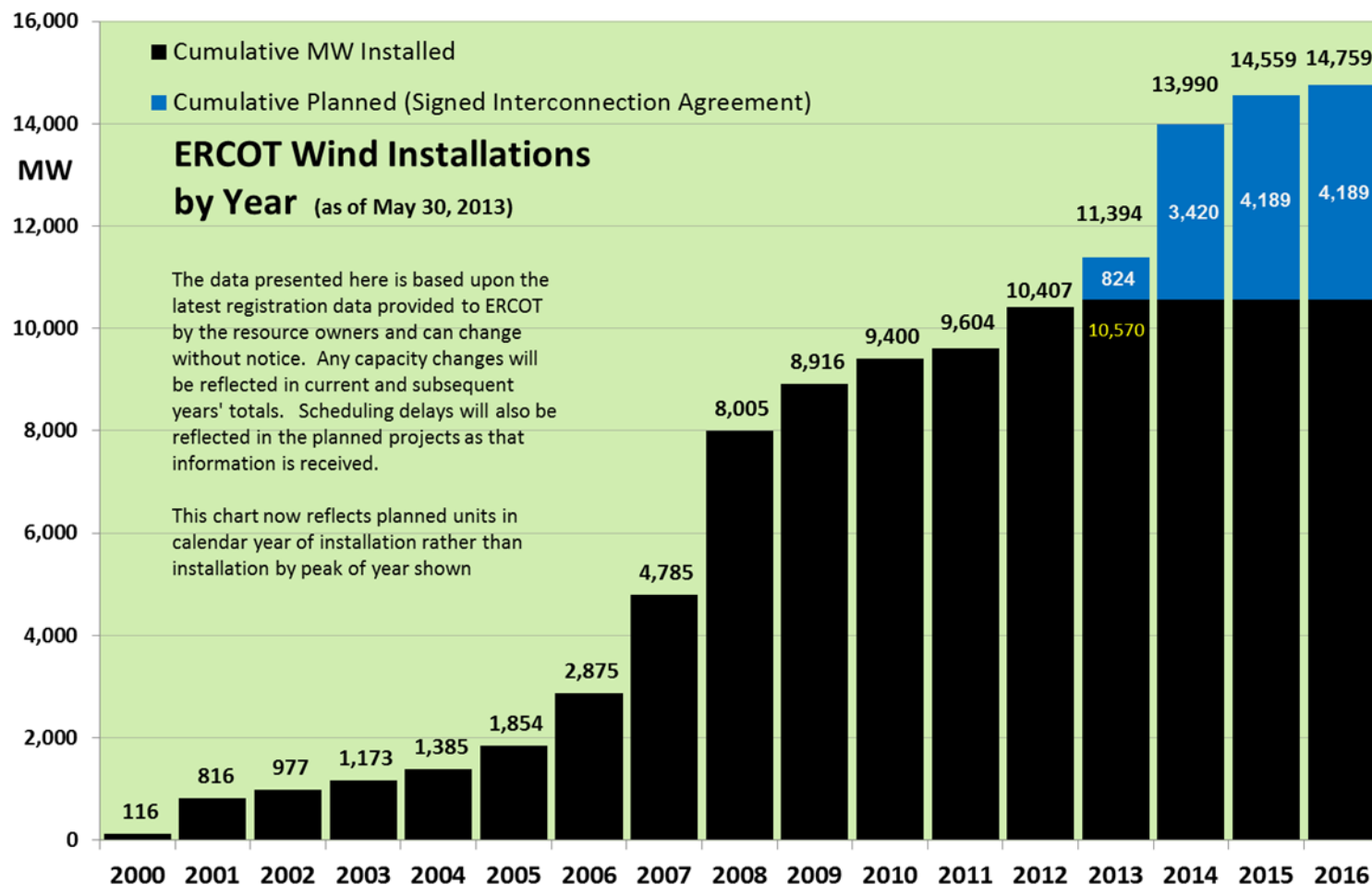




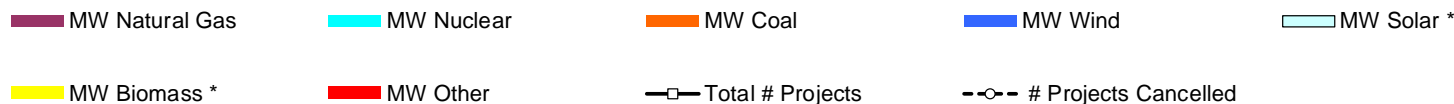
# County Location of Planned Generation with Interconnection Requests (Wind) – May 2013



# Wind Generation – May 2013

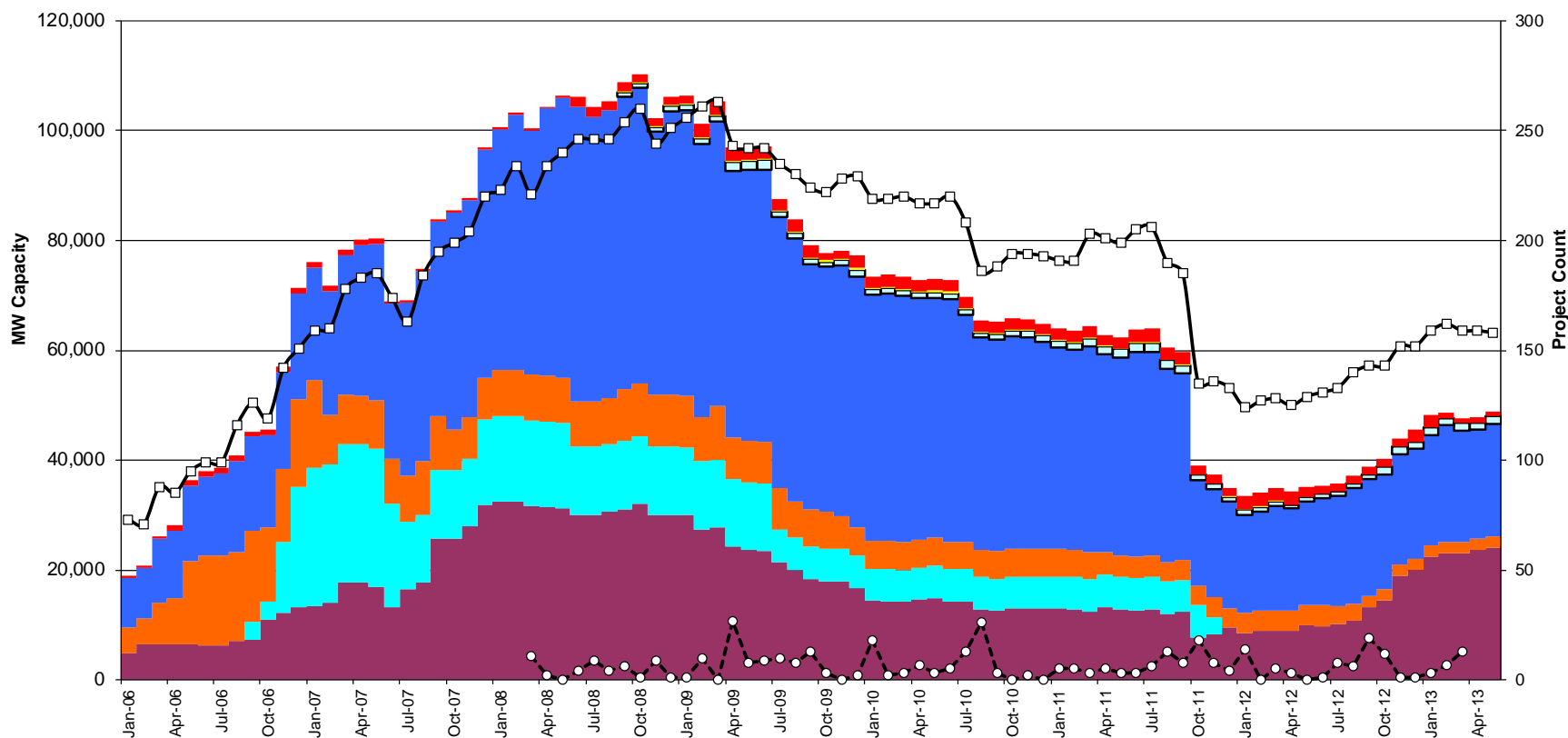


# Generation Interconnection Activity by Fuel – May 2013

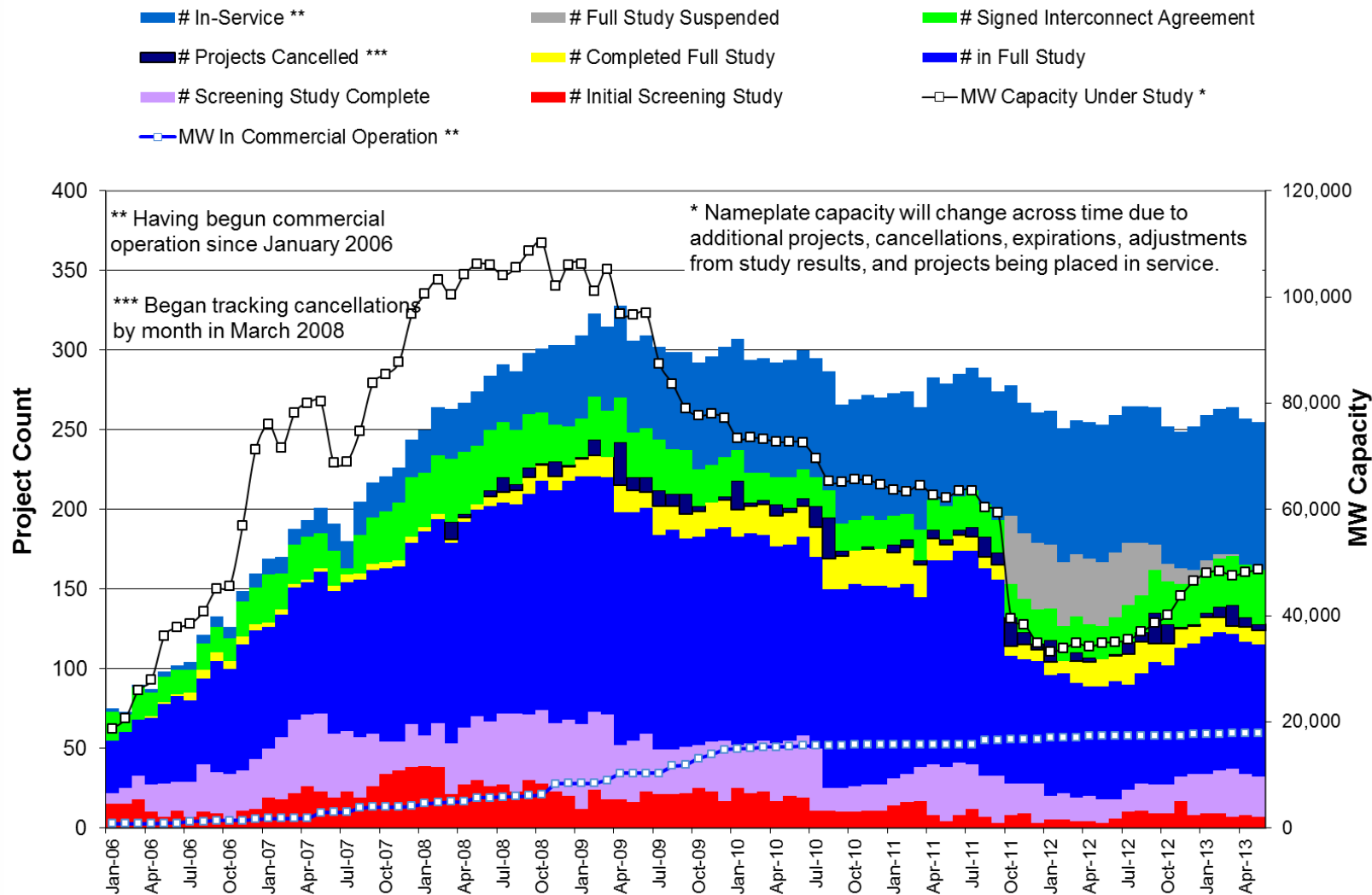


\* Prior to September 2008, Category "Other" included "Solar" and "Biomass"  
 Projects in all phases of interconnection study are reflected in this graph  
 Project cancellation tracking by month began in March 2008

Note: Suspended Projects are not included in this chart



# Generation Interconnection Activity by Project Phase – May 2013

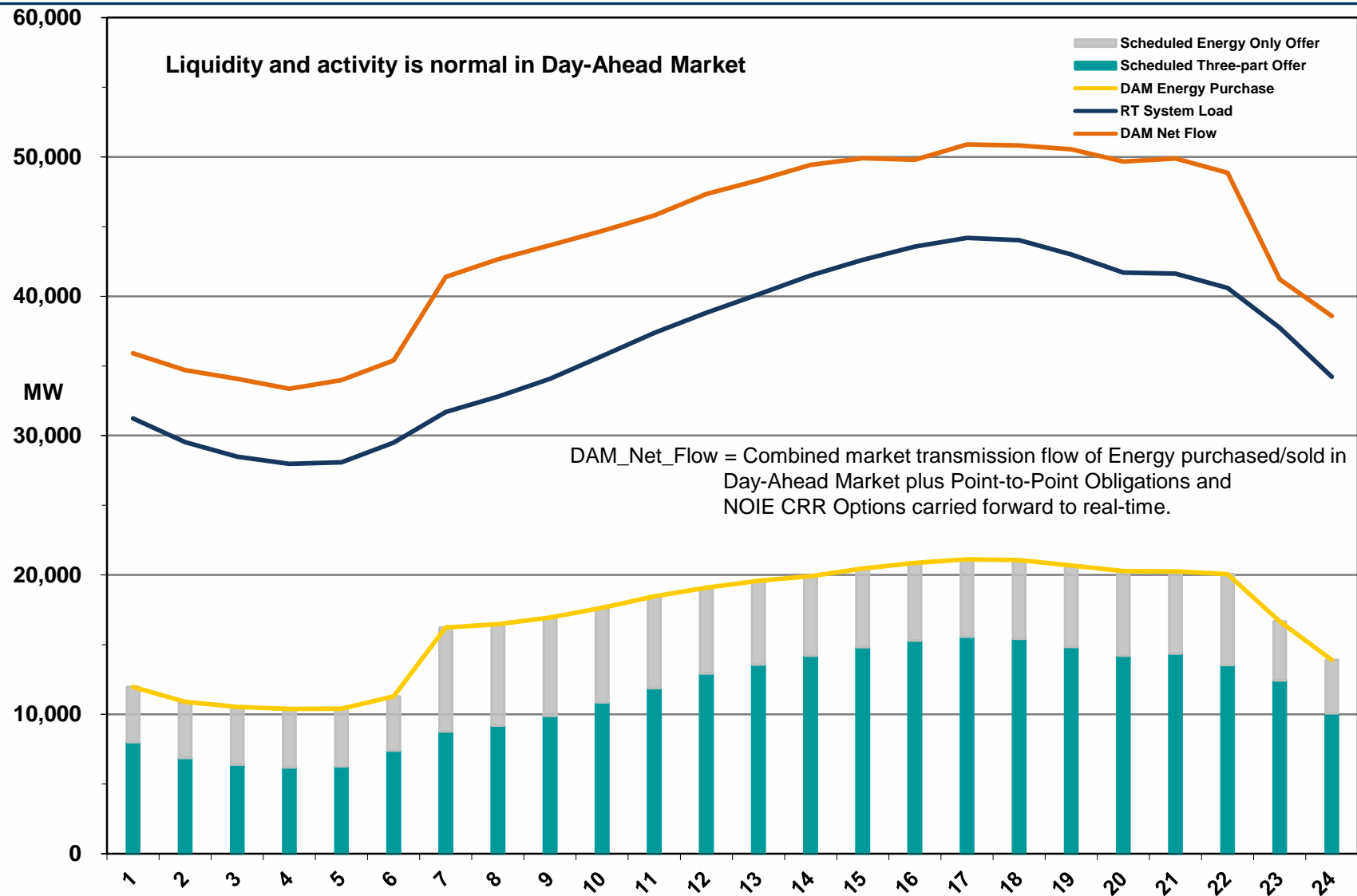


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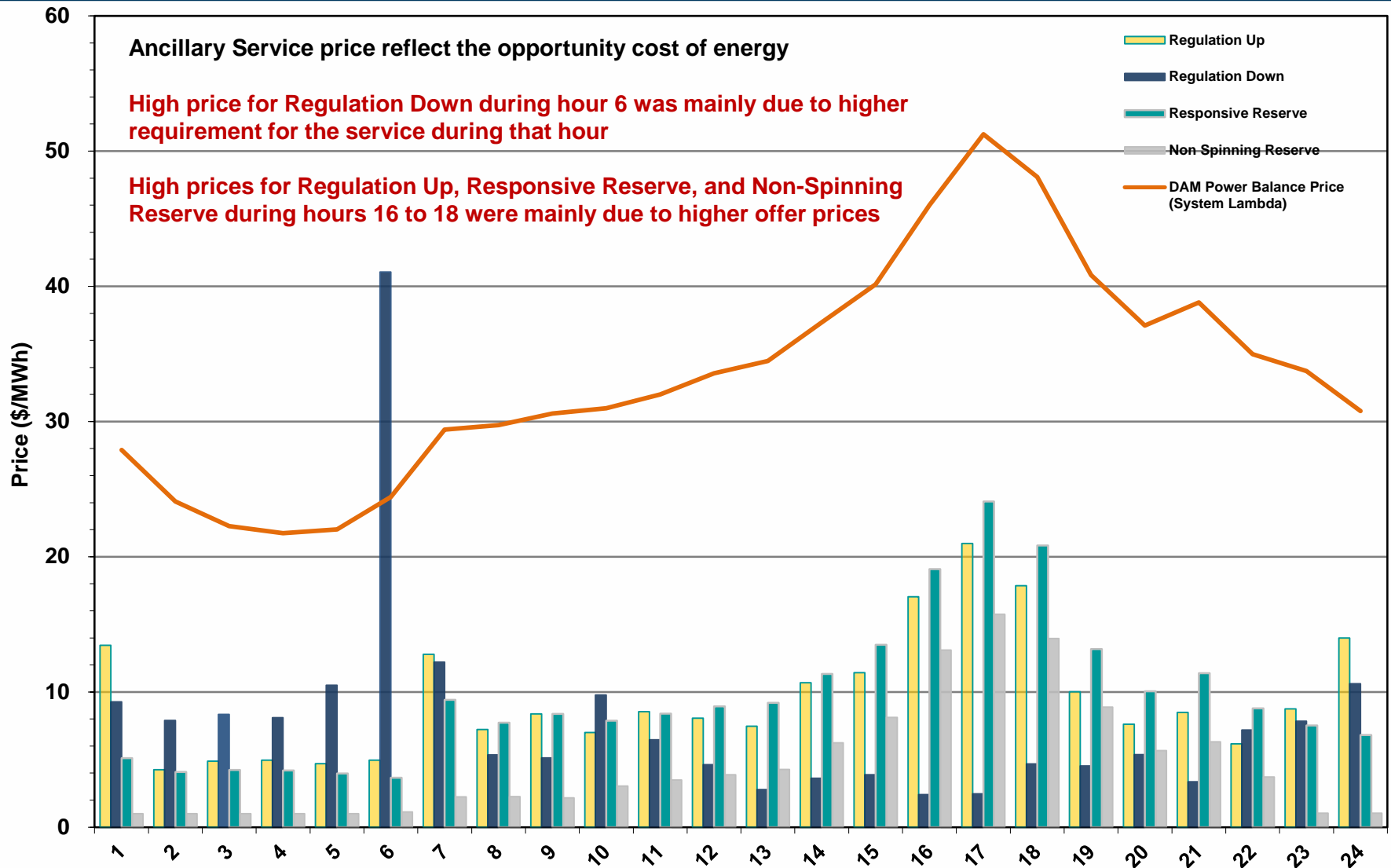
# **Market Operations**

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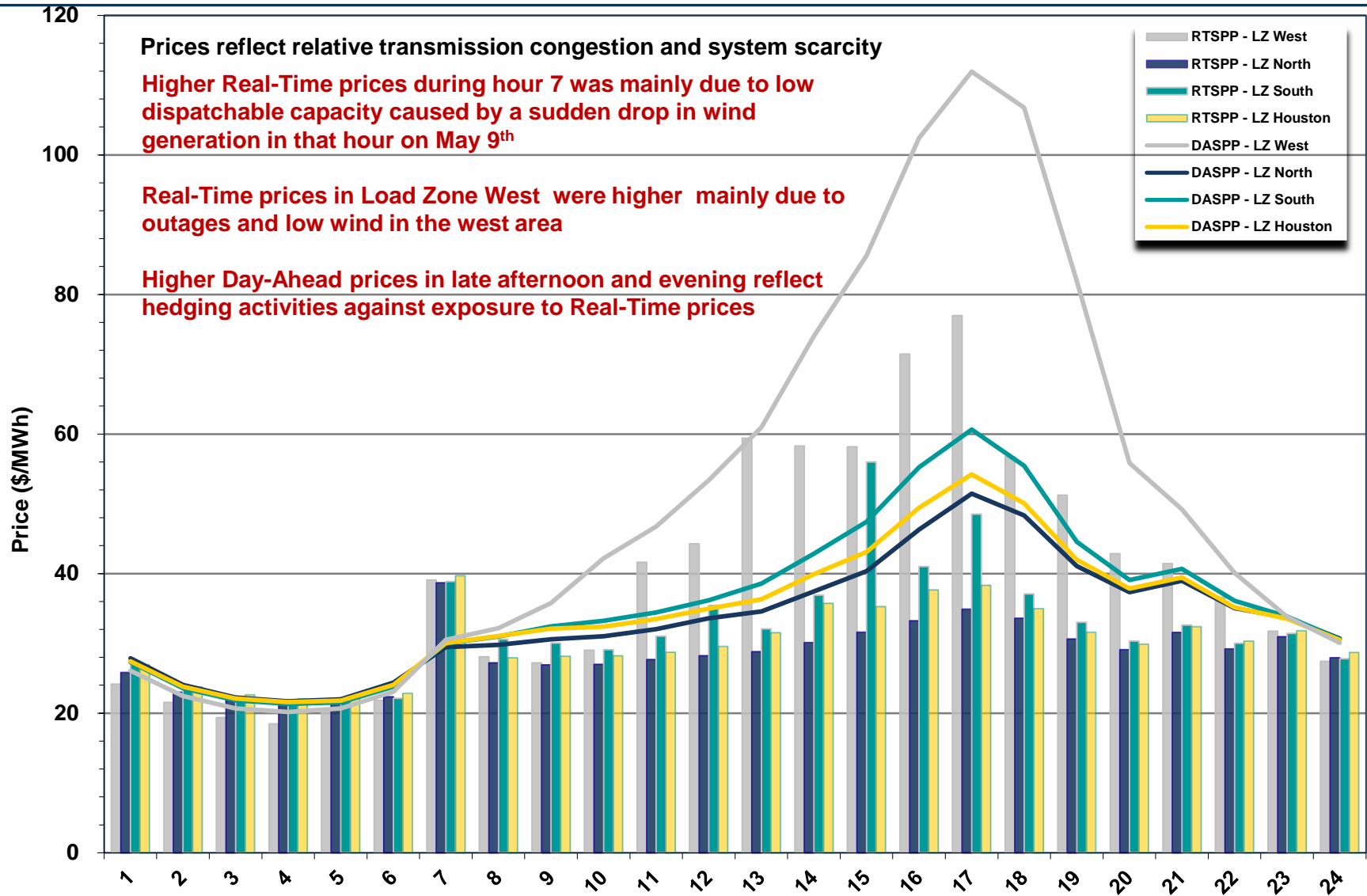
# Day-Ahead Schedule (Hourly Average) – May 2013



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

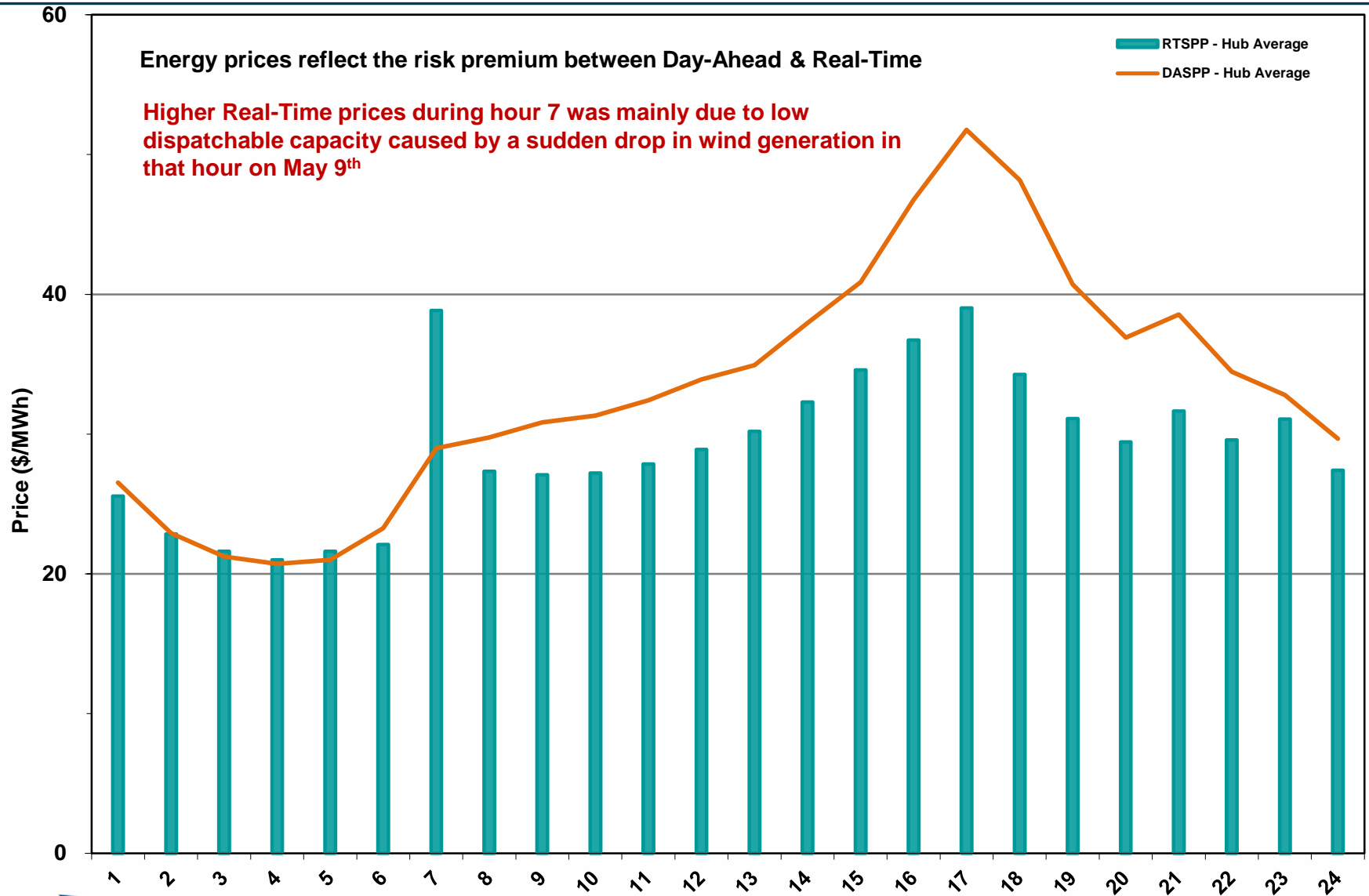


# Day-Ahead Vs Real-Time Load Zone SPP (Hourly Average) – May 2013

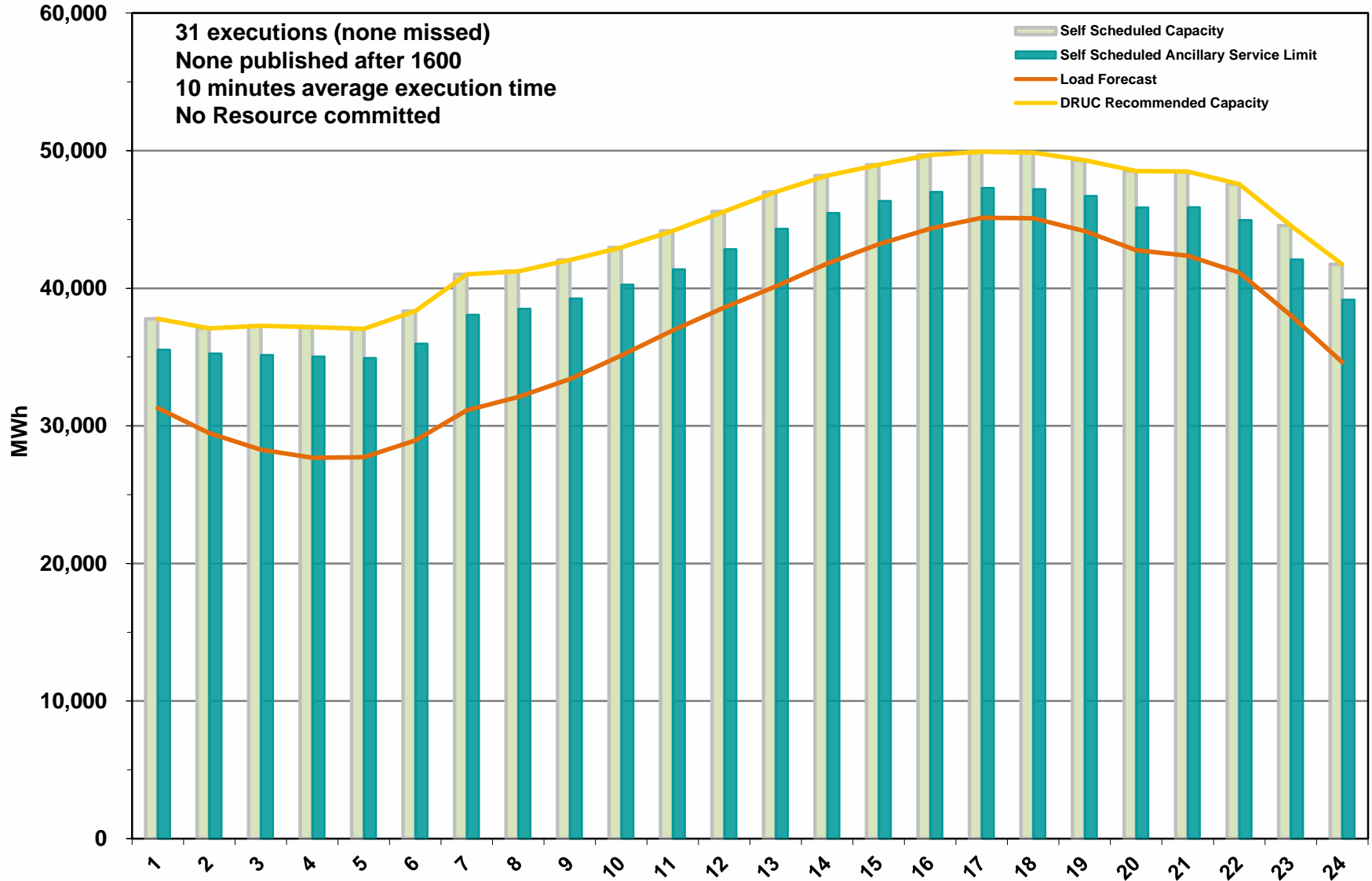




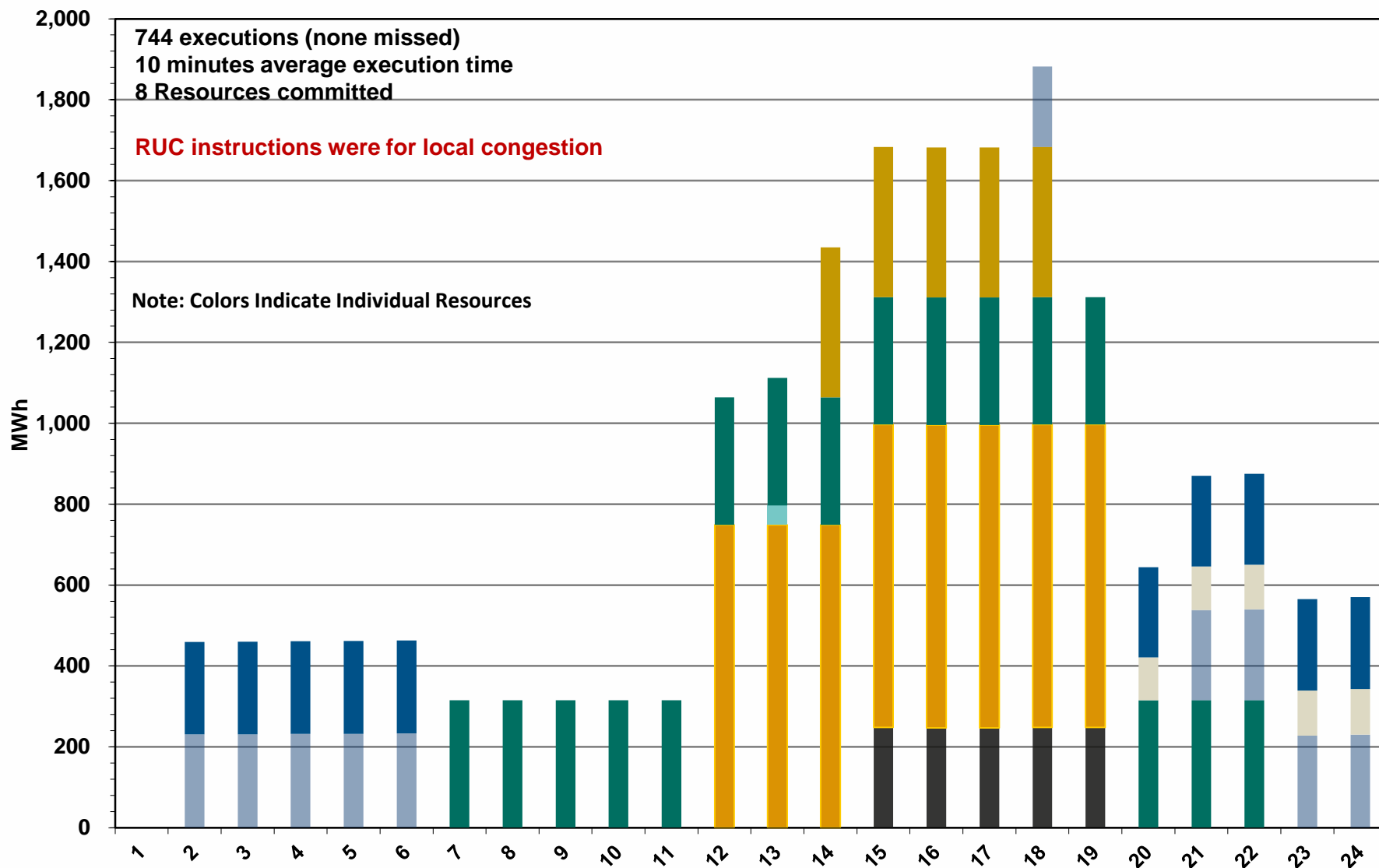
# Day-Ahead Vs Real-Time Hub Average SPP (Hourly Average) – May 2013



# DRUC Monthly Summary (Hourly Average) – May 2013



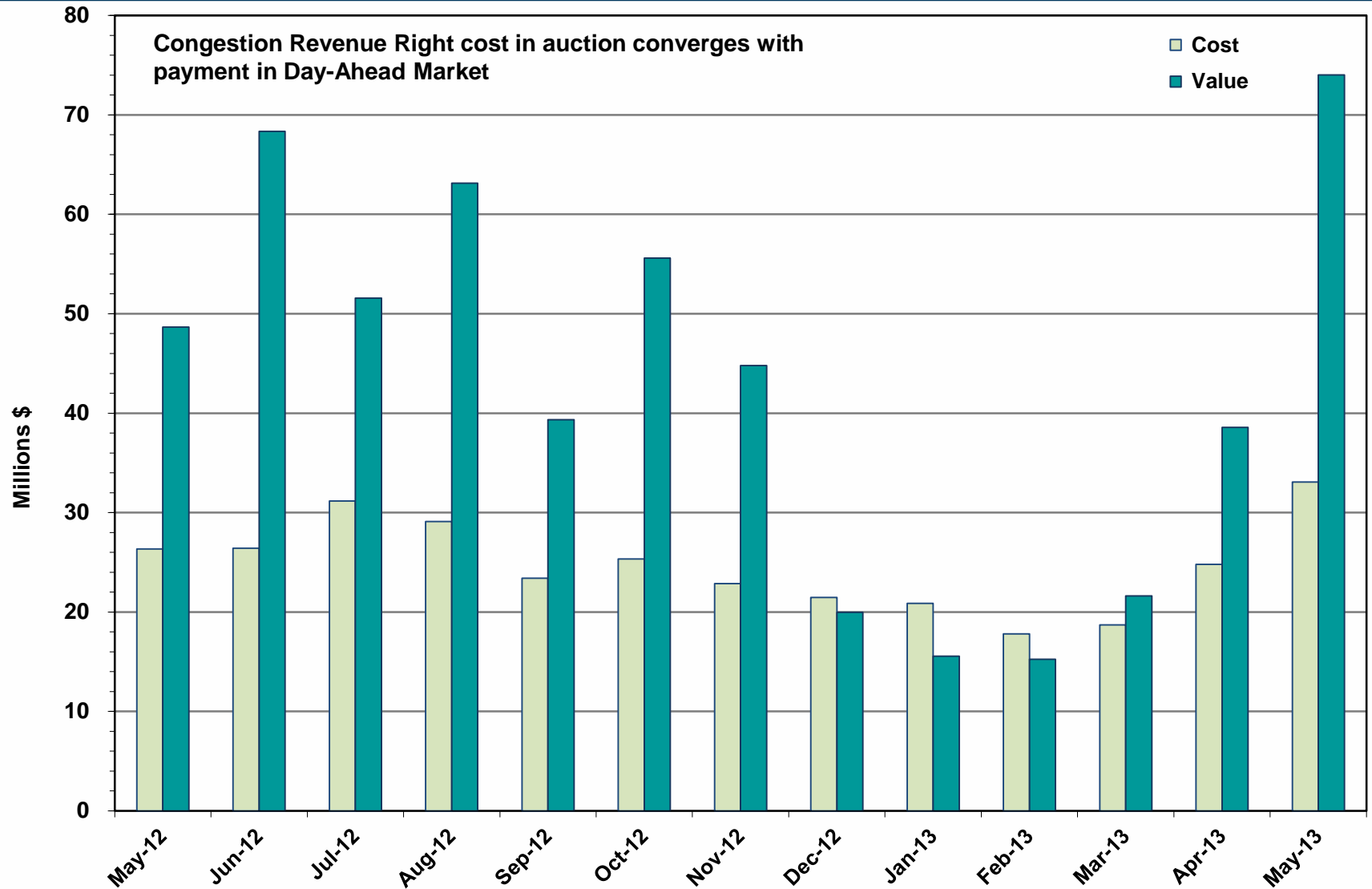
# HRUC Monthly Summary – May 2013



# Non-Spinning Reserve Service Deployment – May 2013

Deployment Start Time	Deployment End Time	Deployment Duration (Hours)	Max Deployment (MW)	Reason
5/5/13 3:12PM	5/5/13 8:35PM	5.38	73	Transmission Constraint
5/10/13 12:11PM	5/10/13 12:58PM	0.78	93	Transmission Constraint
5/11/13 1:49PM	5/11/13 8:58PM	7.15	96	Transmission Constraint
5/13/13 9:12AM	5/13/13 11:00AM	1.78	99	Transmission Constraint

# CRR Price Convergence – May 2013



# ERS Procurement for **June 2013 – September 2013**

## 10-Minute ERS

	BH1	BH2	BH3	NBH
MW Procured	472.125	351.550	345.500	384.875
Average Price Per MW per Hour <sup>1</sup>	\$10.21	\$12.07	\$12.60	\$10.13

Note: Four Generators procured with an average of 11.7 MW across all 4 time periods

## 30-Minute ERS Pilot

MW Procured	126.970	87.645	76.190	100.940
Clearing Price <sup>2</sup>	\$11.00	\$12.00	\$14.00	\$11.00

BH1 - Business Hours 1

HE 0900 through 1300, Monday thru Friday except ERCOT Holidays

BH2 - Business Hours 2

HE 1400 through 1600, Monday thru Friday except ERCOT Holidays

BH3 - Business Hours 3

HE 1700 through 2000, Monday thru Friday except ERCOT Holidays

NBH - Non-Business Hours

All other hours

## Weather Sensitive ERS Pilot

	BH2	BH3	WEH
MW Procured	2.60	2.60	2.60
Clearing Price <sup>2</sup>	\$50.00	\$50.00	\$50.00

BH2 - Business Hours 2

HE 1400 through 1600, Monday thru Friday except ERCOT Holidays

BH3 - Business Hours 3

HE 1700 through 2000, Monday thru Friday except ERCOT Holidays

WEH- WeekEnd & Holidays

HE 1400-2000, Saturday, Sundays & Holidays

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

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

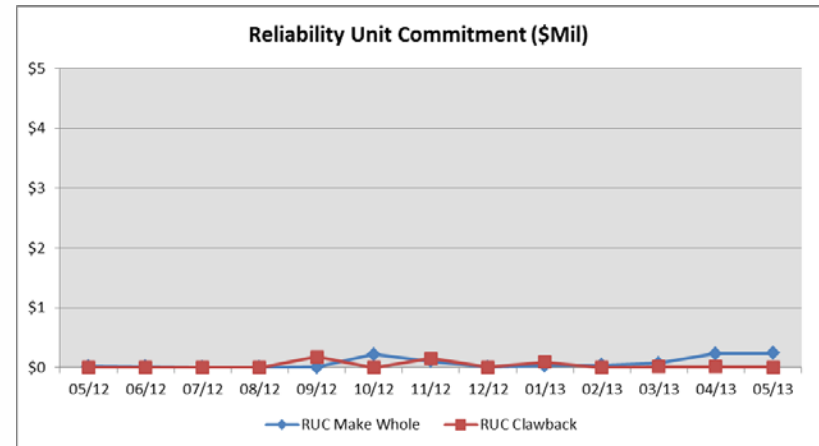


# Market Enhancements to Address IMM Recommendations – May 2013

Enhancement	Further Information
Operating Reserve Demand Curve – Hogan hybrid w/o real-time co-optimization	<ul style="list-style-type: none"><li>• ERCOT's impact analysis was filed 5-17-13</li><li>• 20 filings (comments) were submitted to the PUC by the 5-31-13 deadline.</li><li>• PUCT Project 40000 Workshop is scheduled for 6-27-13.</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>
Complete Protocol revisions and implement the changes necessary to address the SCED “over-mitigation” issues	<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 is scheduled to be migrated in Release 4 (7/29 – 8/2)</li></ul>

# Reliability Services – May 2013

Reliability Unit Commitment (RUC)	\$ in Millions
RUC Make-Whole Payments	(\$0.24)
RUC Clawback Charges	\$0.00
<b>RUC Commitment Settlement</b>	<b>(\$0.24)</b>
RUC Capacity Short Charges	\$0.24
RUC Make-Whole Uplift	\$0.00
<b>RUC Commitment Cost Allocation</b>	<b>\$0.24</b>
RUC Decommitment Payments	\$0.00



RUC Cost continues to trend low.

RUC Costs for May 2013 were a charge of \$0.24M, compared to:

- A charge of \$0.24 in April 2013
- A charge of \$0.02 in May 2012



# Ancillary Services – May 2013

Capacity Services	\$ in Millions
Regulation Up Service	\$3.62
Regulation Down Service	\$3.05
Responsive Reserve Service	\$16.5
Non-Spinning Reserve Service	\$5.01
Black Start Service	\$0.56
Voltage Services - Reactive Power	\$0.0
Voltage Services - Lost Opportunity	\$0.0
<b>Total Capacity Service</b>	<b>\$28.71</b>

Capacity Services costs were up slightly from last month and are greater than May 2012.

May 2013 cost was \$28.71M, compared to:

- A charge of \$27.43M in April 2013
- A charge of \$20.09M in May 2012

# Energy Settlement – May 2013

Day-Ahead Market Energy Settlement	\$ in Millions
Energy Purchases	\$461.56
Point to Point Obligation Purchases	\$59.22
RMR Day-Ahead Revenue	\$0.00
Energy Sales	(\$446.77)
<b>Day-Ahead Congestion Rent</b>	\$74.01
Day-Ahead Market Make-Whole Payments	(\$0.35)

Day-Ahead Market settlement increased and Real-Time energy settlement decreased from last month. Both Day-Ahead Market and Real-Time Market settlements are higher than May 2012.

Real-Time Market Energy Settlement	\$ in Millions
Energy Imbalance at a Resource Node	(\$498.73)
Energy Imbalance at a Load Zone	\$683.05
Energy Imbalance at a Hub	(\$135.86)
Real Time Congestion from Self Schedules	\$1.65
Block Load Transfers and DC Ties	(\$7.82)
<b>Impact to Revenue Neutrality</b>	\$42.30
Emergency Energy Payments	(\$0.26)
Base Point Deviation Charges	\$0.51
Real-Time Metered Generation (MWh in millions)	27.22

# Congestion Revenue Rights (CRR) – May 2013

<b>Auction Disbursements</b>	<b>\$ in Millions</b>
Annual Auction	(\$12.29)
Monthly Auction	(\$19.58)
<b>Total Auction Revenue</b>	<b>(\$31.87)</b>
Day-Ahead CRR Settlement	(\$86.01)
Day-Ahead CRR Short-Charges	\$14.62
Day-Ahead CRR Short-Charges Refunded	(\$2.67)
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>(\$74.05)</b>
Day-Ahead Point to Point Obligations Settlement	\$59.22
Real-Time Point to Point Obligation Settlement	(\$49.57)
<b>Net Point to Point Obligation Settlement</b>	<b>\$9.65</b>

Congestion Revenue Rights were not fully funded. Excess funds were not available for distribution to load. The final short fall after applying Balancing Account funds was \$11.95M.

Distribution of balancing account funds to load for May 2013 was \$0, compared to:

- \$0 in April 2013
- \$6.38M in May 2012

Point to Point Obligations settled with a net loss of \$9.65M compared to a net gain of \$15.35M last month.

# Revenue Neutrality – May 2013

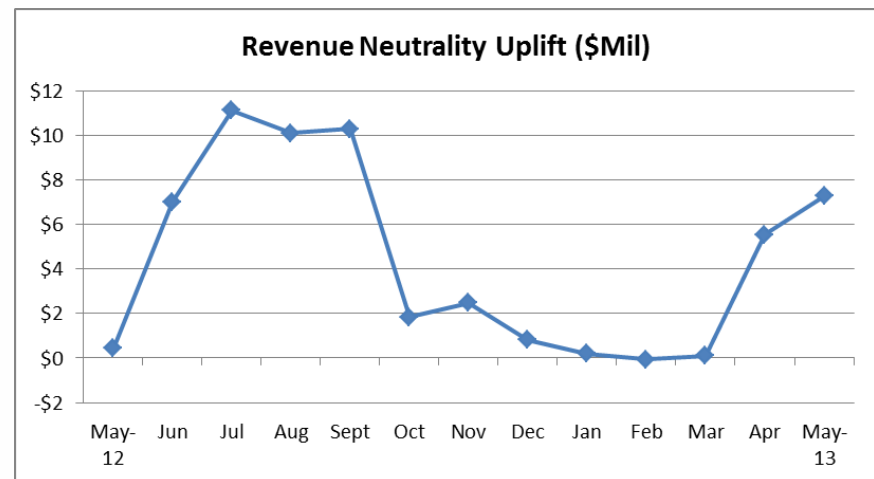
## Revenue Neutrality Settlement

	\$ in Millions
Real-Time Point to Point Obligation Settlement	(\$49.57)
Real-Time Point to Point Options and Options with Refund Settlement	(\$0.00)
Real-Time Energy Imbalance Settlement	\$48.46
Real-Time Congestion from Self-Schedules Settlement	\$1.65
DC Tie & Block Load Transfer Settlement	(\$7.82)
<b>Charge to Load</b>	<b>\$7.28</b>

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

May 2013 was a charge of \$7.28M, compared to:

- \$5.55M charge in April 2013
- \$0.44M charge in May 2012



# Net Uplift to Load – May 2013

## Market-Based Uplifts

\$ in Millions

CRR Auction Revenue Disbursement Settlement	(\$31.87)
Balancing Account Proceeds Settlement	(\$0.00)
Net Reliability Unit Commitment Settlement	\$0.24
Ancillary Services Settlement	\$28.71
Reliability Must Run Services Settlement	\$0.0
Reliability Must Run for Capacity	\$0.0
Real-Time Revenue Neutrality Settlement	\$7.28
Emergency Energy Settlement	\$0.26
Base Point Deviation Settlement	(\$0.51)

**Total \$4.12**

## Fee Uplifts

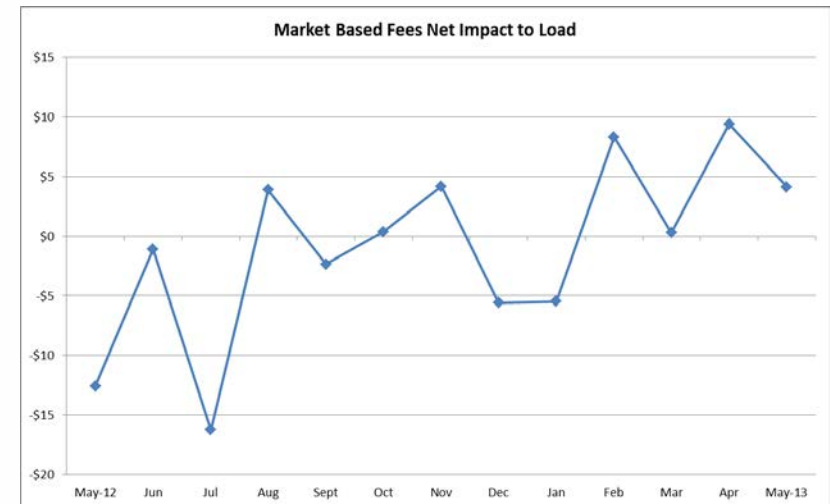
ERCOT Administrative Fee Settlement	\$11.49
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**Net Uplift Charge to Load \$15.60**

Net uplift to Load decreased from last month and increased significantly from May of 2012.

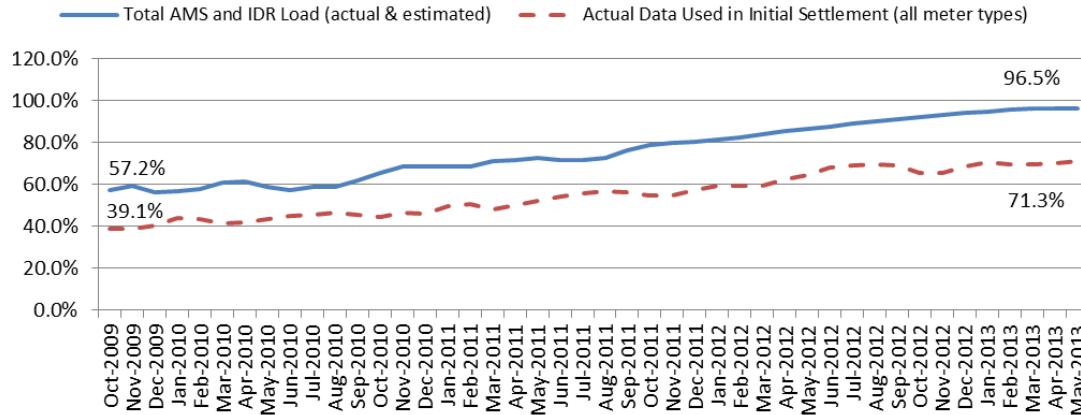
May 2013 was a charge of \$15.60M, compared to:

- A charge of \$19.17M in April 2013
- A credit of \$0.53M in May 2012



# Advanced Meter Settlement Impacts – May 2013

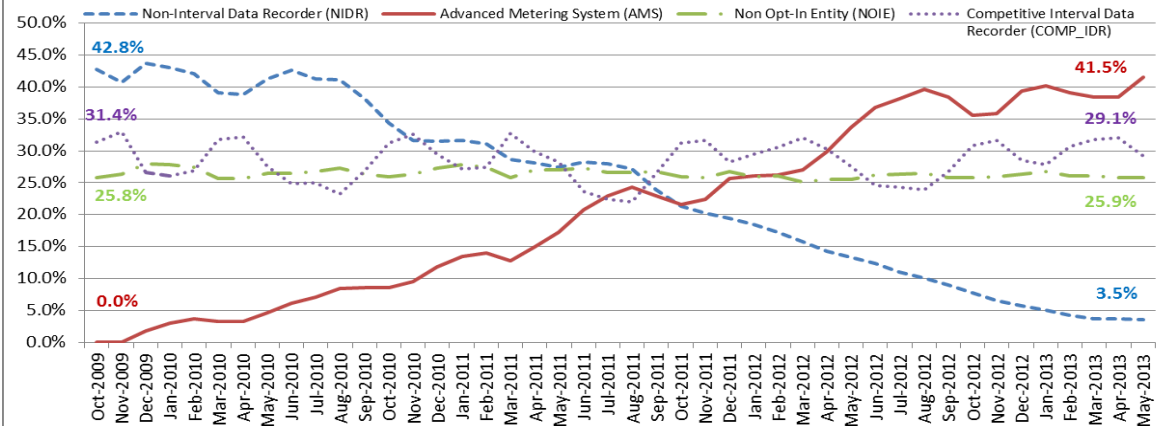
Percent Actual/Percent Interval Data Recorder (IDR)



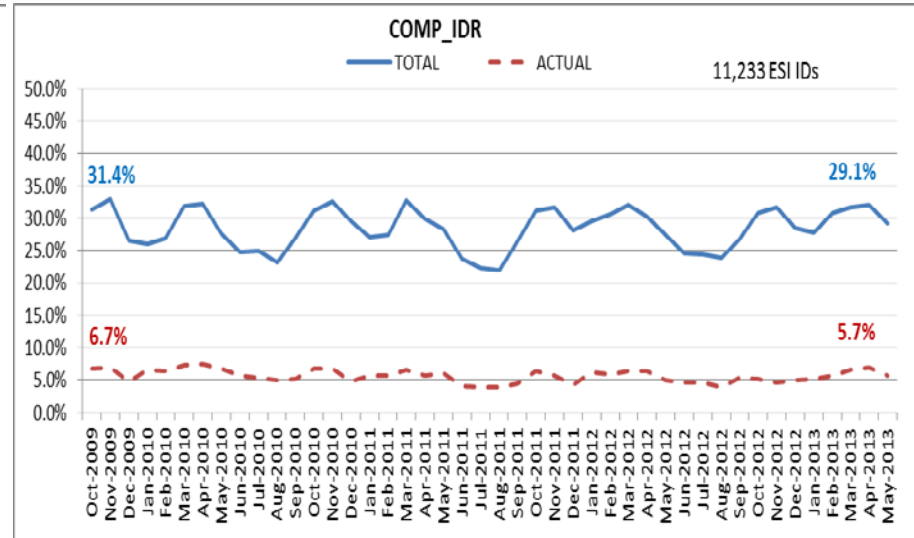
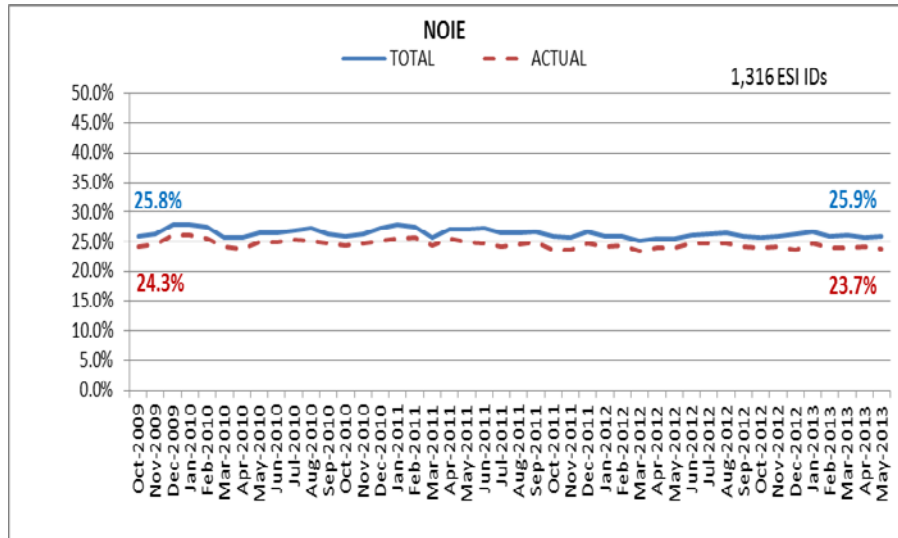
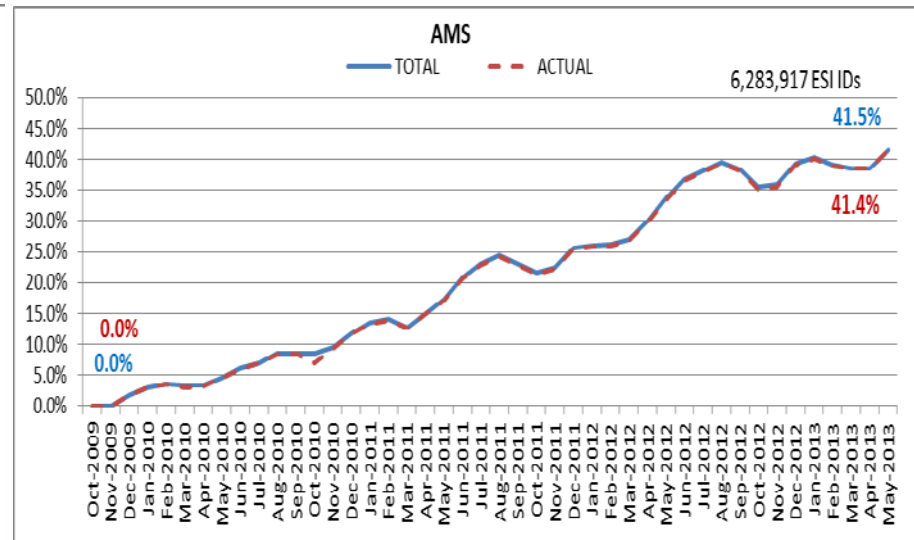
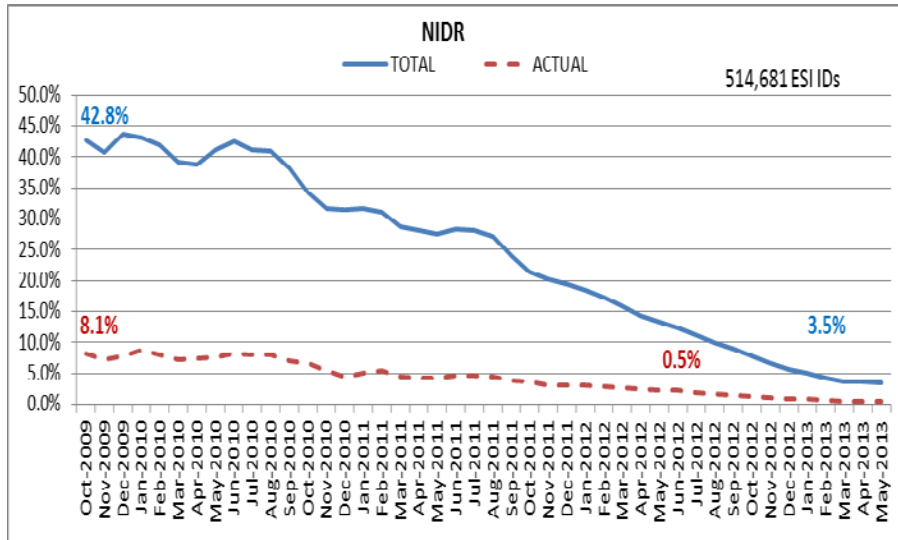
May 2013: At month end, settling 6.2M ESIIDs using Advanced Meter data.

May 2013: 96.5% 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 – May 2013



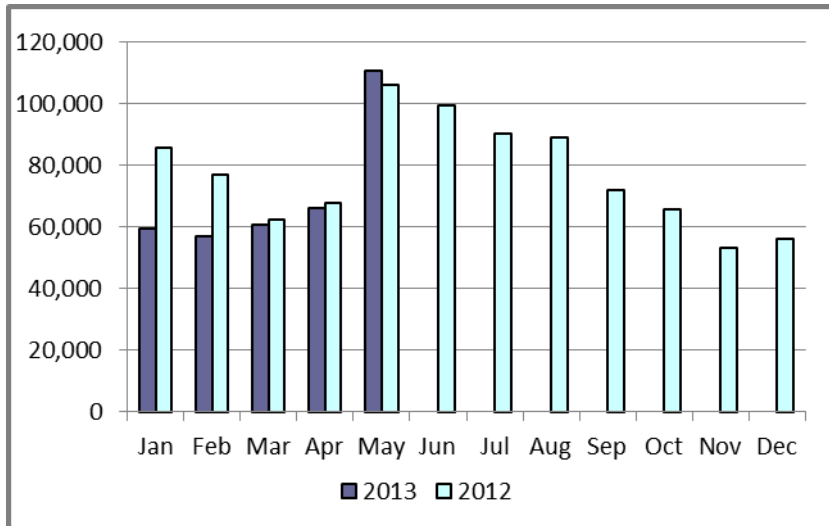
# Retail Transaction Volumes – Summary – May 2013

Transaction Type	Year-To-Date		Transactions Completed	
	May 2013	May 2012	May 2013	May 2012
Switches	353,228	399,104	110,489	106,193
Acquisition	126	0	0	0
Move - Ins	909,406	877,734	193,737	185,541
Move - Outs	445,614	425,684	95,646	92,711
Continuous Service Agreements (CSA)	195,349	215,504	50,646	38,413
Mass Transitions	0	0	0	0
<b>Total</b>	<b>1,903,723</b>	<b>1,918,026</b>	<b>450,518</b>	<b>422,858</b>
<b>Total since June 1, 2001</b>	<b>51,795,249</b>			

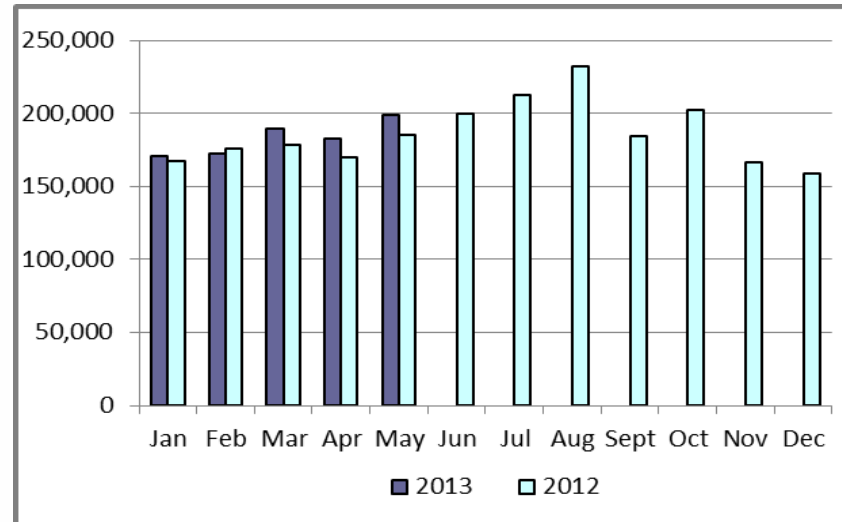


# Retail Transaction Volumes – Summary – May 2013

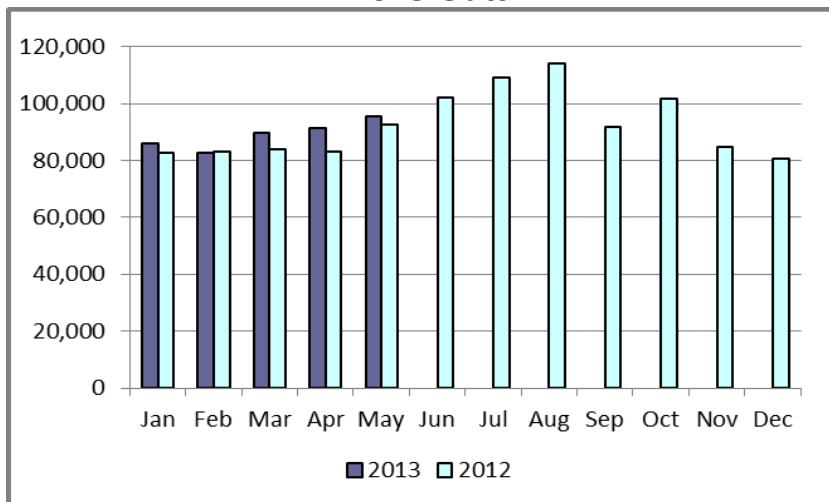
## Switches/Acquisitions



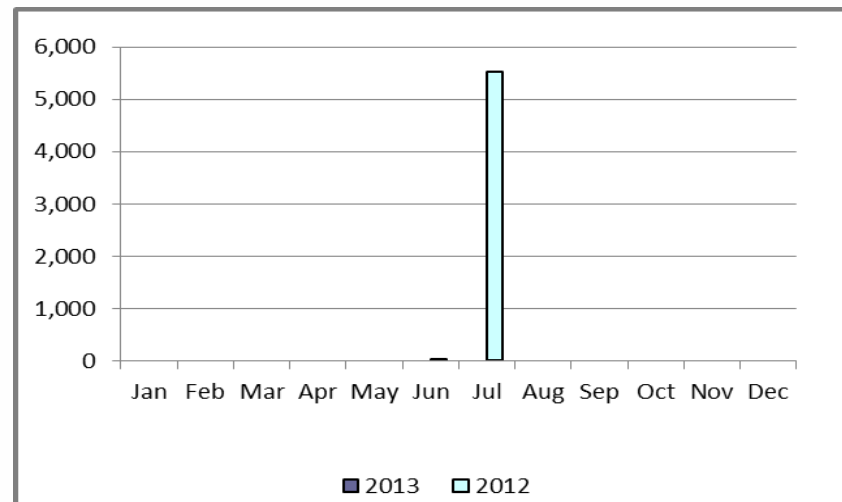
## Move-Ins



## Move-Outs

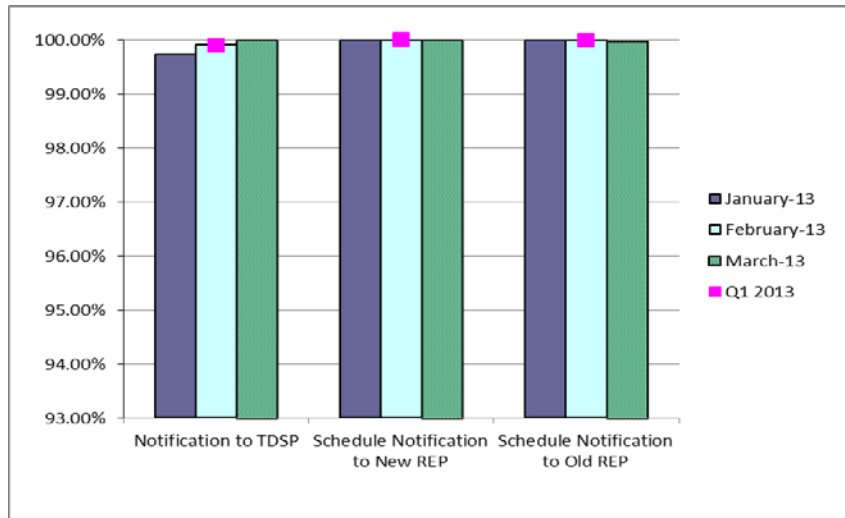


## Mass Transition

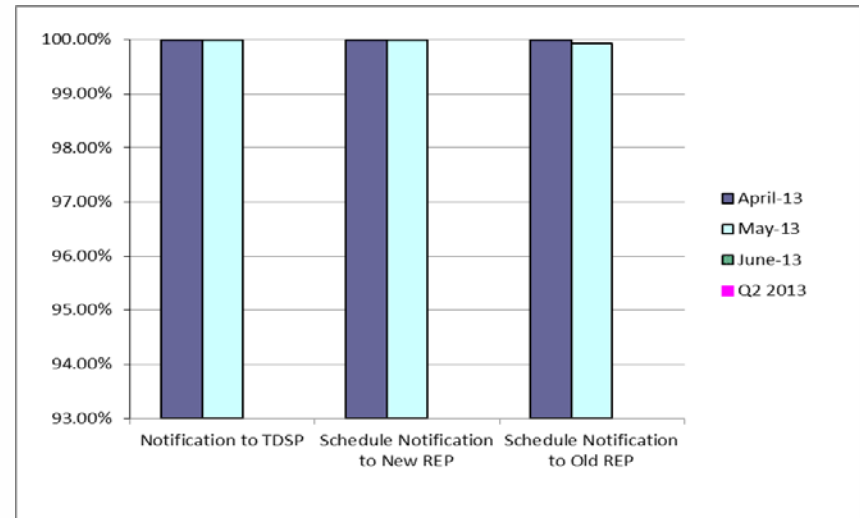


# Retail Performance Measures – Switch – May 2013

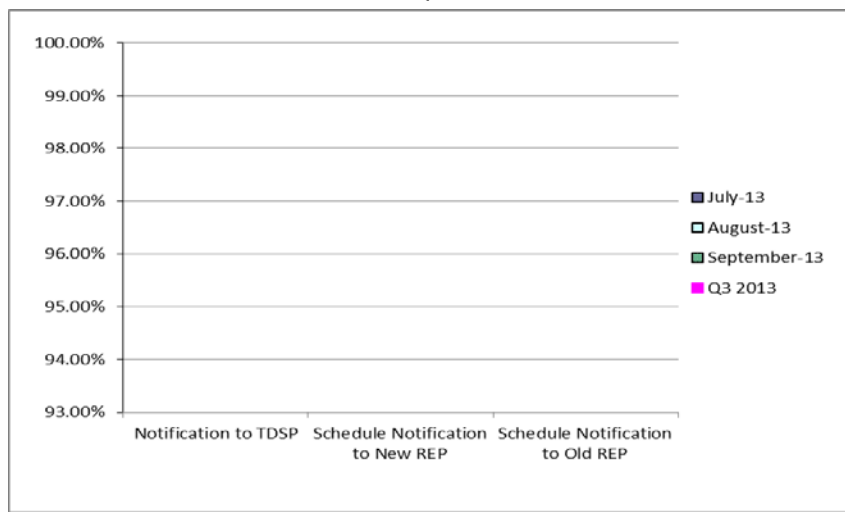
## 1<sup>st</sup> Quarter



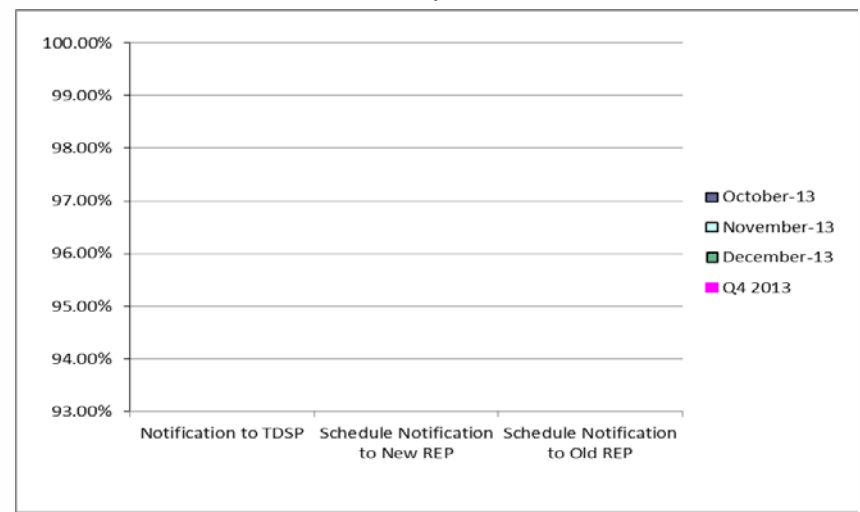
## 2<sup>nd</sup> Quarter



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

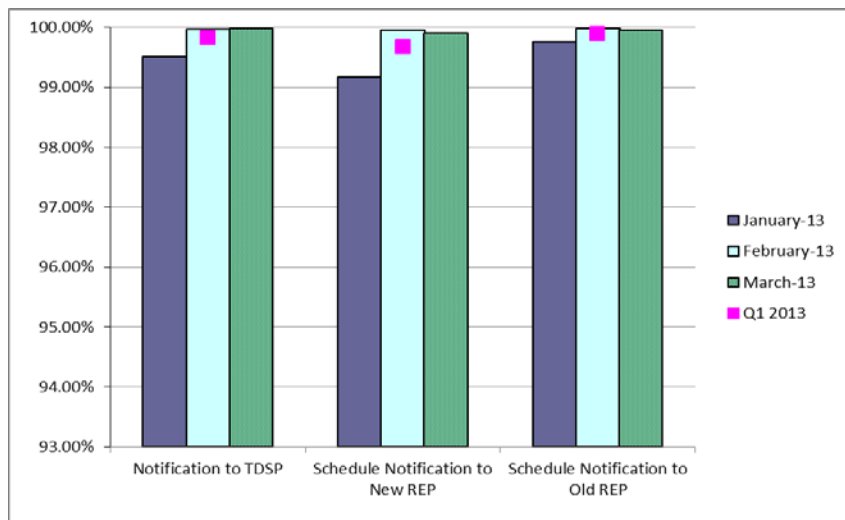


## 4<sup>th</sup> Quarter

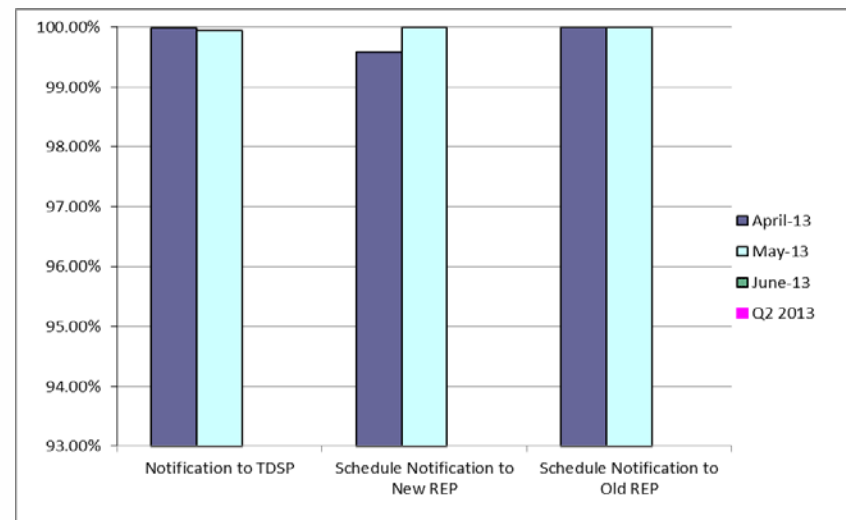


# Retail Performance Measures (Same Day Move-In) – May 2013

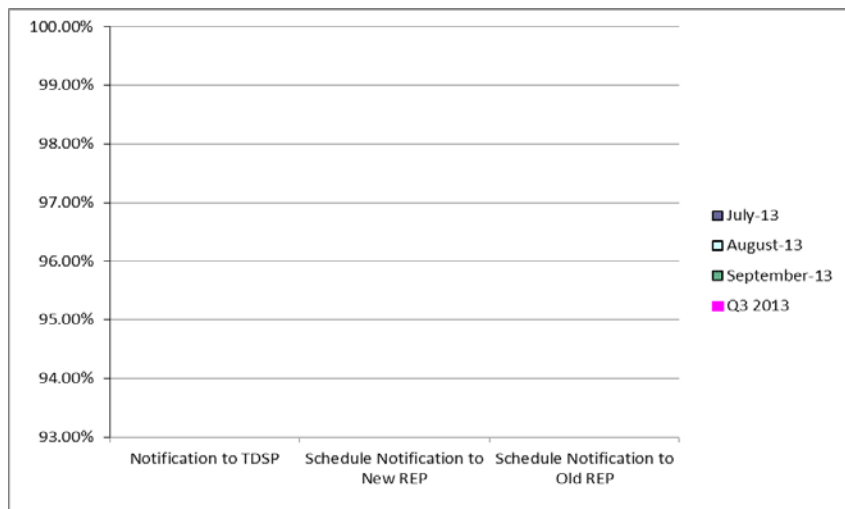
## 1<sup>st</sup> Quarter



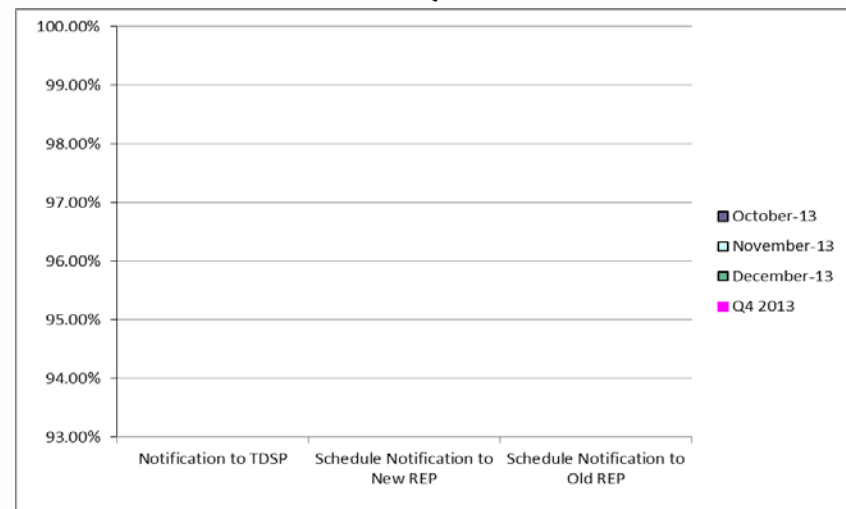
## 2<sup>nd</sup> Quarter



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

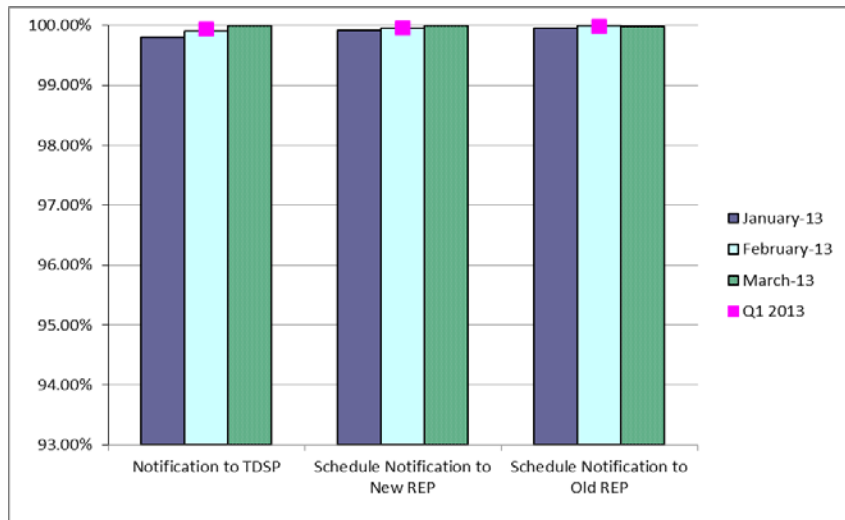


## 4<sup>th</sup> Quarter

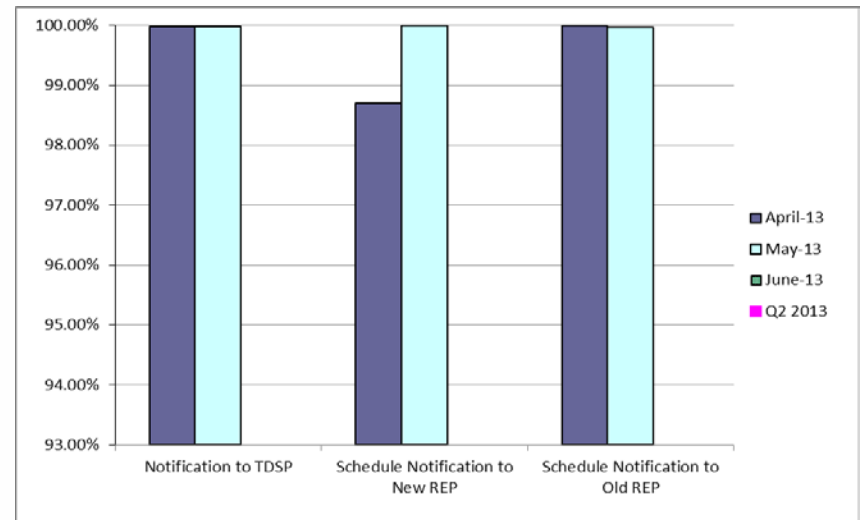


# Retail Performance Measures (Standard Move-In) – May 2013

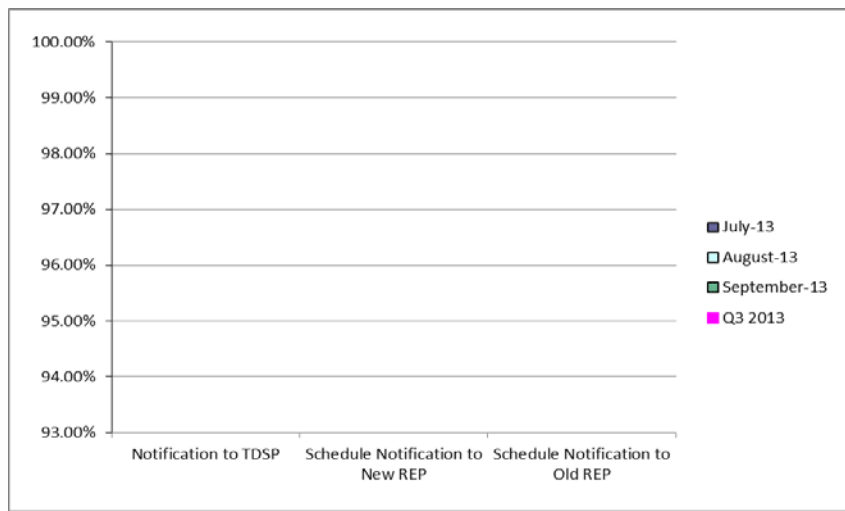
## 1<sup>st</sup> Quarter



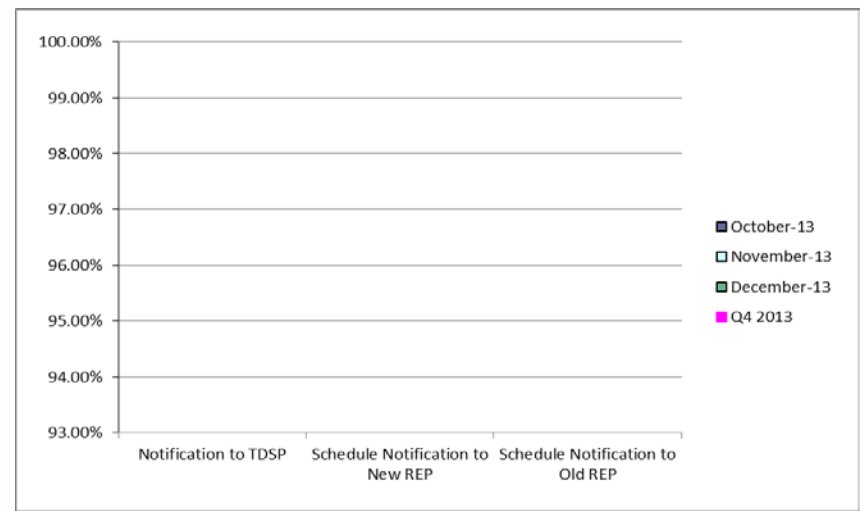
## 2<sup>nd</sup> Quarter



## 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 6/13/2013)

Project Number	Project Name	Phase	Baseline Phase Start	Baseline Phase Finish or Go-Live	Scheduled Phase Finish or Go-Live	Schedule Status	Sum of 2013 Budgets	2013 Forecast Spend	2013 Variance	Sum of Total Budgets	Total Forecast Spend	Total Variance
<b>PROJECTS IN FLIGHT (Count = 56) Sorted by Phase / Project Num</b>							<b>\$ 18,972,900</b>	<b>\$ 16,221,095</b>	<b>14%</b>	<b>\$ 35,436,079</b>	<b>\$ 31,109,980</b>	<b>12%</b>
106-01	MP Online Data Entry - Ph 1	Initiation							51%			0%
NPRR272	Definition and Participation of Quick Start Generation Resources	Initiation							0%			-1%
052-01	EMS Upgrade	Planning	7/25/2012	7/17/2013	7/17/2013	0%			19%			11%
065-01	NMMS Upgrade	Planning	5/1/2013	7/31/2013	7/31/2013	0%			10%			9%
066-01	Planning Site Transition to MIS	Planning	1/9/2013	3/25/2013	6/19/2013	3	-114%		8%			8%
070-01	Linux Configuration Management Tool	Planning	1/23/2013	6/26/2013	6/26/2013	0%			20%			21%
071-01	Windows Server Systems Management	Planning	1/23/2013	6/26/2013	6/27/2013	0%			4%			4%
077-01	Contract Lifecycle Management	Planning	2/13/2013	7/10/2013	7/10/2013	0%			1%			0%
083-01	Centralized Application Log Management	Planning	3/6/2013	5/15/2013	6/26/2013	3	-60%		6%			6%
088-01	Information Technology Change Management	Planning	4/10/2013	5/29/2013	7/2/2013	3	-69%		8%			7%
097-01	ABB MMS OS Technology Refresh	Planning	5/29/2013	11/20/2013	11/20/2013	0%			2%			45%
098-01	EPG Synchrophasor Upgrade	Planning	5/8/2013	6/19/2013	6/19/2013	2%			35%			34%
099-01	Moody's Analytics	Planning	5/15/2013	8/14/2013	8/14/2013	0%			-1%			0%
103-01	NAS Data Storage / File Synchronization - EMMS System and Applications	Planning	5/8/2013	7/3/2013	7/3/2013	0%			0%			0%
104-01	Disaster Recovery S&B, RTL, MDT	Planning	5/15/2013	7/31/2013	7/31/2013	0%			3%			2%
NPRR153	Generation Resource Fixed Quantity Block Offer	Planning	4/10/2013	5/24/2013	5/24/2013	0%			33%			33%
NPRR207	Unit Deselection	Planning	5/22/2013	6/12/2013	6/12/2013	0%			73%			73%
NPRR327	State Estimator Data Redaction Methodology	On Hold	12/5/2012	2/12/2013		4			0%			0%
NPRR385	Negative Price Floor	Planning	5/22/2013	6/12/2013	6/12/2013	0%			35%			34%
NPRR425	Creation of a WGR Group for GREDP and Base Point Deviation Evaluation	Planning	3/13/2013	7/10/2013	7/1/2013	7%			30%			30%
NPRR457	Daily Update of New ESI IDs and AMS Meter and Switch Hold Indicators Changes	Planning	4/10/2013	5/29/2013	6/19/2013	7	-42%		28%			27%
NPRR476	Market Submitted Energy Offer Curves Disclosures	Planning	4/10/2013	6/12/2013	6/26/2013	7	-22%		26%			25%
NPRR484	Revisions to Congestion Revenue Rights Credit Calculations and Payments	Planning	4/10/2013	7/17/2013	7/17/2013	0%			41%			0%
NPRR514	Seasonal Generation Resource	Planning	6/5/2013	7/3/2013	7/3/2013	0%			0%			95%
010-02	MarkeTrak Upgrade	Execution	12/12/2012	6/22/2013	6/22/2013	0%			13%			11%
016-01	ADP-IDM Interface	On Hold	5/23/2012			4						14%
017-01	Oracle 11g Upgrade	Execution	10/10/2012	7/26/2013	7/26/2013	0%			7%			15%
038-01	Macomber Map NERC SA/Compliance Enhancements	Execution	9/19/2012	12/7/2012	6/13/2013	3	-237%		0%			-2%
042-01	CRR Upgrade to v12.3	Execution	5/16/2012	4/1/2013	4/1/2013	0%			57%			31%
047-01	CMSDK/MIR Replacement	Execution	4/24/2013	12/8/2013	11/26/2013	5%			1%			1%
055-01	Siebel Upgrade 8.x	Execution	3/13/2013	7/29/2013	7/29/2013	0%			-7%		3	-5%
057-01	EPS Metering DB Redesign	Execution	4/17/2013	9/6/2013	9/30/2013	3	-16%		2%			2%
059-01	Security Information and Event Management (SIEM) Upgrade	Execution	5/8/2013	11/15/2013	11/15/2013	0%			14%			26%
067-01	Physical Security Upgrade	Execution	2/13/2013	7/26/2013	7/26/2013	0%			18%			17%
072-01	OSI PI Upgrades - EMS Production	Execution	4/17/2013	9/9/2013	9/9/2013	0%			27%			27%
074-01	Mobile Device Management - POC	Execution	3/13/2013	6/5/2013	7/15/2013	47%			19%			21%
075-01	Operator Data Display	Execution	4/10/2013	9/29/2013	9/29/2013	0%			14%			16%
081-01	Additional Resource Data for Outage Scheduler	Execution	5/29/2013	9/26/2013	9/26/2013	0%			1%			0%
088-0x	Capital Efficiencies and Enhancements - 2013	Execution	8/16/2012	12/31/2013	12/31/2013	0%			0%			0%
095-01	Mobile Application Enhancement	Execution	5/8/2013	9/5/2013	9/6/2013	0%			-5%			-4%
096-01	Backup Software Strategy and Proposed License Cost Reduction	Execution	5/22/2013	7/12/2013	7/12/2013	0%			33%			33%
101-01	Emergency Notification System Hardware Refresh	Execution	5/8/2013	6/19/2013	6/20/2013	-2%			76%			76%
10052_01	Settlement System Upgrade	Execution	1/25/2012	10/10/2014	10/10/2014	0%			5%			-3%
2013 PC	Program Control - 2013	Execution	8/16/2012	12/31/2013	12/31/2013	0%			0%			0%
99913	Minor Cap - 2013	Execution	1/1/2013	12/31/2013	12/31/2013	0%			0%			0%
NPRR393	SCED Constraint Management Transparency	Execution	3/13/2013	8/1/2013	8/1/2013	0%			17%			17%
NPRR416	Removal of the RUC Clawback Charge for Resources Other than RMR Units	Execution	4/10/2013	9/27/2013	9/26/2013	0%			33%			33%
NPRR456	Clarification of Definition of Electrically Similar Settlement Points and Heuristic Pricing Posting	Execution	2/14/2013	4/26/2013	4/25/2013	0%			19%			19%
NPRR461	Energy Storage Settlements Consistent with PUCT Project 39917	Execution	3/13/2013	7/30/2013	7/30/2013	0%			4%			5%
NPRR479	Daily Net Outage MW	Execution	4/10/2013	8/1/2013	8/1/2013	0%			25%			25%
NPRR481	Report of Hourly Actual System Load by Weather Zone	Execution	4/10/2013	6/13/2013	6/13/2013	0%			46%			45%
NPRR520	Real-Time Mitigation Rules and Creation of a Real-Time Constraint Competitiveness Test	Execution	5/1/2013	8/1/2013	8/1/2013	0%			4%			4%
NOGRR093	Synchronization with NPRR365	Execution	3/27/2013	6/14/2013	6/14/2013	0%			64%			64%
SCR760	Recommended Changes Needed for Information Model Mgr and Topology Processor for Planning Models	Execution	8/25/2011	7/31/2013	7/12/2013	2%			39%			25%
SCR770	Revision to Outage Scheduling Entry for Resource Maintenance Outage Level Designation	Execution	3/14/2013	9/27/2013	9/27/2013	0%			22%			23%
SCR773	Addition of Regulation Feedback to Generation to be Dispatched Calculation	Execution	5/3/2013	5/23/2013	5/23/2013	0%			0%			0%

# ERCOT Portfolio Stoplight Report (as of 6/13/2013)

Project Number	Project Name	Phase	Forecast Start Date					Sum of 2013 Budgets	2013 Forecast Spend	2013 Variance	Sum of Total Budgets	Total Forecast Spend	Total Variance
<b>PROJECTS NOT YET STARTED (Count = 30)</b>				<b>Sorted by Rank</b>				<b>\$ 2,360,647</b>	<b>\$ 2,087,957</b>		<b>\$ 7,434,380</b>	<b>\$ 7,161,690</b>	
NOGRR101	Market Notice for DC-TIE Outage Information	Not Started	Jun 2013										
SCR756	MarkeTrak Enhancements - Remaining SCR756 Items	Not Started	Jun 2013										
TBD	Alstom Load Forecasting Upgrade	Not Started	Jun 2013										
TBD	IBM AIX Operating System Upgrades	Not Started	Jun 2013										
TBD	Mobile Device Management	Not Started	Aug 2013										
TBD	Quality Center Upgrade	Not Started	Jun 2013										
NPRR210	Wind Forecasting Change to P50, Sync with PRR841	Not Started	Jul 2013										
NPRR492	Addition of System Lambda Information	Not Started	Jul 2013										
NOGRR105	Generation Resource Frequency Response Test Procedure	Not Started	Jul 2013										
TBD	Dev Hardware Refresh and Virtualization Expansion	Not Started	Jul 2013										
TBD	Symposium Call Center Replacement	Not Started	Jul 2013										
NPRR240	Proxy Energy Offer Curve	Not Started	Aug 2013										
TBD	ERCOT Native Load Calculation	Not Started	Aug 2013										
TBD	Lawson Security	Not Started	Aug 2013										
TBD	Taylor Control Room Upgrade	Not Started	Aug 2013										
NOGRR084	Daily Grid Operations Summary Report	Not Started	Sep 2013										
SCR771	ERCOT System Change Allowing Independent Master QSE to Represent Split Generation Resources	Not Started	Sep 2013										
TBD	Enterprise Vault Upgrade	Not Started	Sep 2013										
TBD	Intrusion Prevention System	Not Started	Sep 2013										
TBD	SQL Server 2012 Upgrade / Cluster Consolidation	Not Started	Sep 2013										
NPRR256	Sync with PRR787, Add Non-Compliance Language to QSE Performance Standards	Not Started	Oct 2013										
TBD	Email Redundancy	Not Started	Oct 2013										
TBD	Net Backup Architecture Redesign	Not Started	Oct 2013										
TBD	Voice Over IP (VOIP) Replacement for PBX	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										
NPRR493	Half-Hour RUC Clawback	Not Started	Jan 2015										
NPRR495	Changes to Ancillary Services Capacity Monitor	Not Started	TBD										
TBD	OTS Enhancements	Not Started	TBD										
TBD	Secure File Transfer	Not Started	TBD										





# ERCOT Portfolio Stoplight Report (as of 6/13/2013)

Project Number	Project Name	Phase	Baseline Execution Phase Start	Baseline Go-Live Target	Actual Go-Live Date	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 = 20) Sorted by Project</b>							<b>\$ 617,038</b>	<b>\$ 673,358</b>	<b>-9%</b>	<b>\$ 5,888,207</b>	<b>\$ 5,544,528</b>	<b>5%</b>
90006_02	Information Lifecycle Mgmt – Mkt Systems, Archive, Reporting	Closing	4/22/2011	6/26/2014	5/13/2013	35%			8%			14%
006-01	SAGE (System Administrator Gateway Environment)	Closing	5/31/2012	12/19/2012	1/3/2013	1 -7%			2 -48%			3%
NPRR260	Providing Access to MIS Secure Area to MIS Registered Users	Closing	10/3/2012	2/15/2013	2/15/2013	0%			3 -58%			20%
NPRR463	CRR Auction Structure Enhancements	Closing	12/20/2012	4/5/2013	4/1/2013	3%			42%			34%
NPRR313	Updating the Term Resource Plan to Current Operating Plan / Availability Plan	Complete	8/22/2012	2/15/2013	2/15/2013	0%			42%			30%
NPRR322	Real-Time PTP Option Modeling	Complete	8/1/2012	2/15/2013	2/15/2013	0%			27%			1%
NPRR347	Implementation of NPRR347 and NPRR400	Complete	3/29/2012	2/15/2013	2/15/2013	0%			55%		3	-13%
NPRR377	Alternate Inputs to Base Point Deviation Charge	Complete	9/26/2012	2/15/2013	2/15/2013	0%			74%			28%
NPRR397	Balance of the Day Ancillary Service Market	Complete	9/19/2012	2/15/2013	2/15/2013	0%			41%			35%
NPRR407	Credit Monitoring Posting Requirements - MMS/CDR Portion	Complete	9/19/2012	2/15/2013	2/15/2013	0%			43%			20%
NPRR469	Modifications to CCTs	Complete	9/19/2012	2/15/2013	2/15/2013	0%			50%			21%
SCR768	Automatic Non-Spin Redeployment and Deployment Based on Resource Availability	Complete	9/19/2012	2/15/2013	2/15/2013	0%			65%			5%
009-01	Compliance Software Tool	Complete	12/1/2011	11/30/2012	12/19/2012	1 -5%			2 -100%			20%
019-01	ERCOT Website Enhancements - 2012	Complete	3/8/2012	12/26/2012	5/1/2013	3 -43%					3	-96%
020-01	CIM Upgrade for NMMS	Complete	6/14/2012	2/15/2013	2/15/2013	0%			12%			22%
021-01	Incremental Update Capability - Phase 1	Complete	3/23/2012	2/6/2013	2/13/2013	-2%			0%			63%
030-01	ITRON Load Forecast	Complete	6/27/2012	2/15/2013	2/15/2013	0%			5 -50%			-2%
043-01	Met Center Lease Reconfiguration	Complete	9/12/2012	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	0%			3 -357%			0%
048-01	TSAT Wind Model	Complete	8/16/2012	4/25/2013	4/25/2013	0%			3 -26%			3%

## SUMMARY

		Sum of 2013 Budgets	2013 Forecast Spend	Sum of Total Budgets	Total Forecast Spend
6%	KPI Budget Measure - Execution/Completed Projects	Projects In Flight \$ 18,972,900	\$ 16,221,095	\$ 35,436,079	\$ 31,109,980
		Projects Not Yet Started \$ 2,360,647	TBD	\$ 7,434,380	TBD
7%	KPI Schedule Measure - Execution/Completed Project	Projects Completed \$ 617,038	\$ 673,358	\$ 5,888,207	\$ 5,544,528
		<b>TOTAL \$ 21,950,584</b>	<b>\$ 16,894,453</b>	<b>\$ 48,758,666</b>	<b>\$ 36,654,508</b>

**Project Funding \$ 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
- 8
- 9



ERCOT Public