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# ERCOT Monthly Operational Overview (**November 2015**)

ERCOT Public  
December 15, 2015

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# **Grid Planning & Operations**

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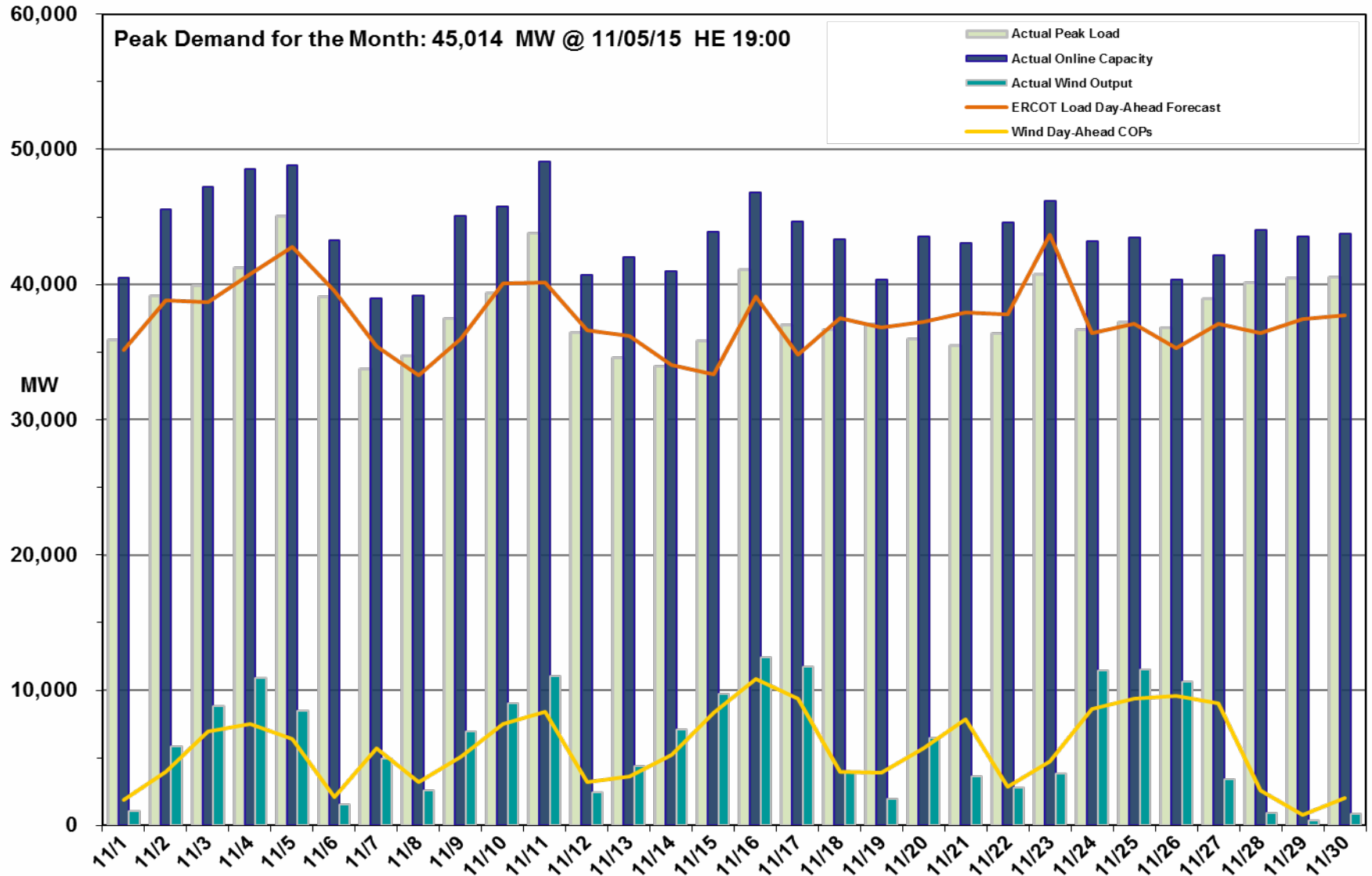
### Operations

- The peak demand of 45,014 MW on November 5th was greater than the day-ahead mid-term forecast peak of 42,810 MW of the same operating period. In addition, it was less than the November 2014 actual peak demand of 50,677 MW. The instantaneous peak load on November 5th was 45,208 MW.
- Day-ahead load forecast error for November was 3.32%
- ERCOT issued one notification
  - One OCN due to ERCOT developing a new Generic Transmission Constraint (“Liston”) near the Garza JL Bates area for voltage stability.

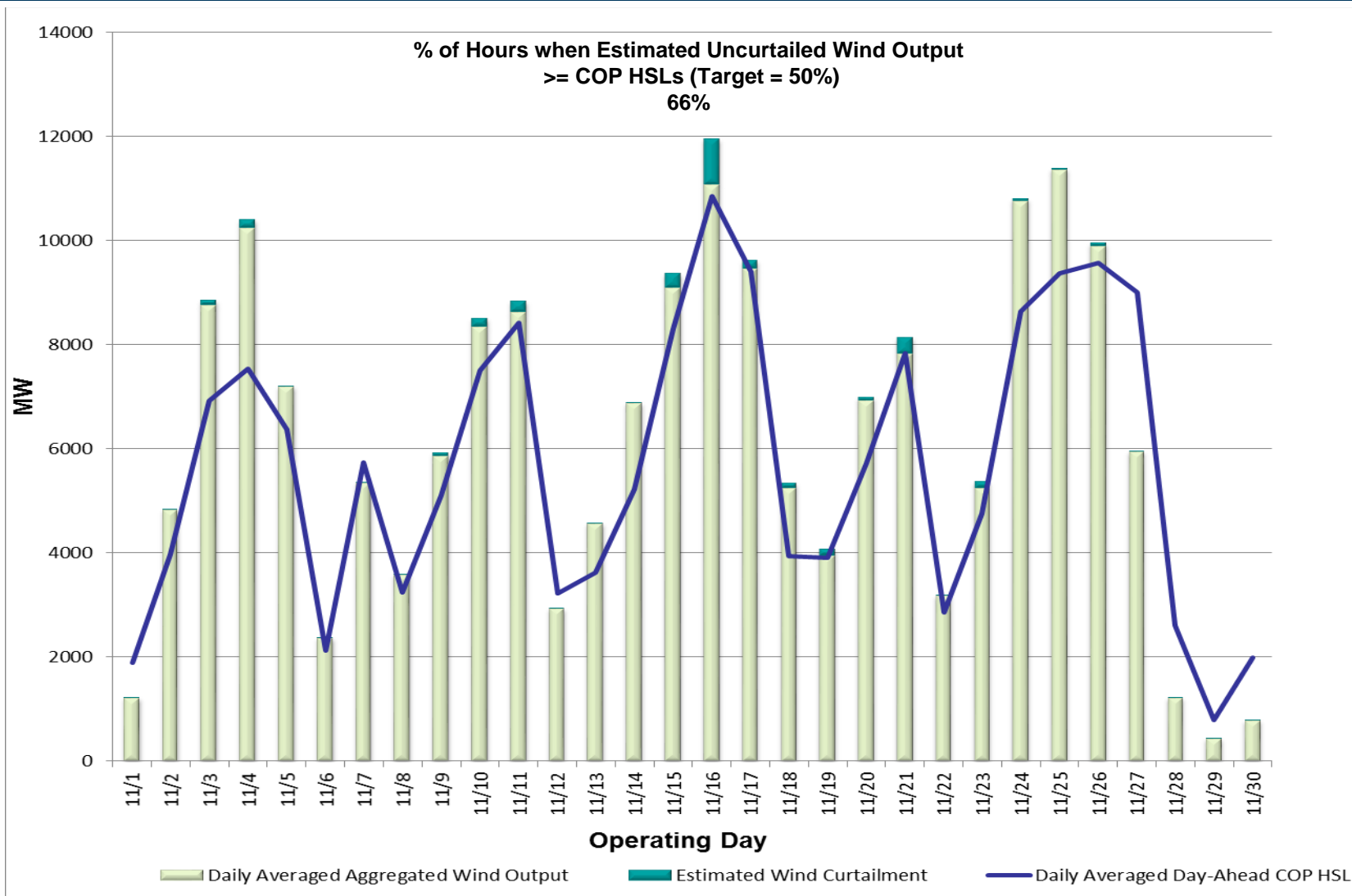
### Planning Activities

- 262 active generation interconnection requests totaling 62,510 MW, including 24,071 MW of wind generation, as of November 30, 2015. Seven fewer requests and a decrease of 516 MW from October 31, 2015.
- 15,036 MW wind capacity in commercial operations on November 30, 2015.

# Daily Peak Demand: Hourly Average Actual vs. Forecast, Wind Day-Ahead COPs & On-line Capacity at Peak – November 2015



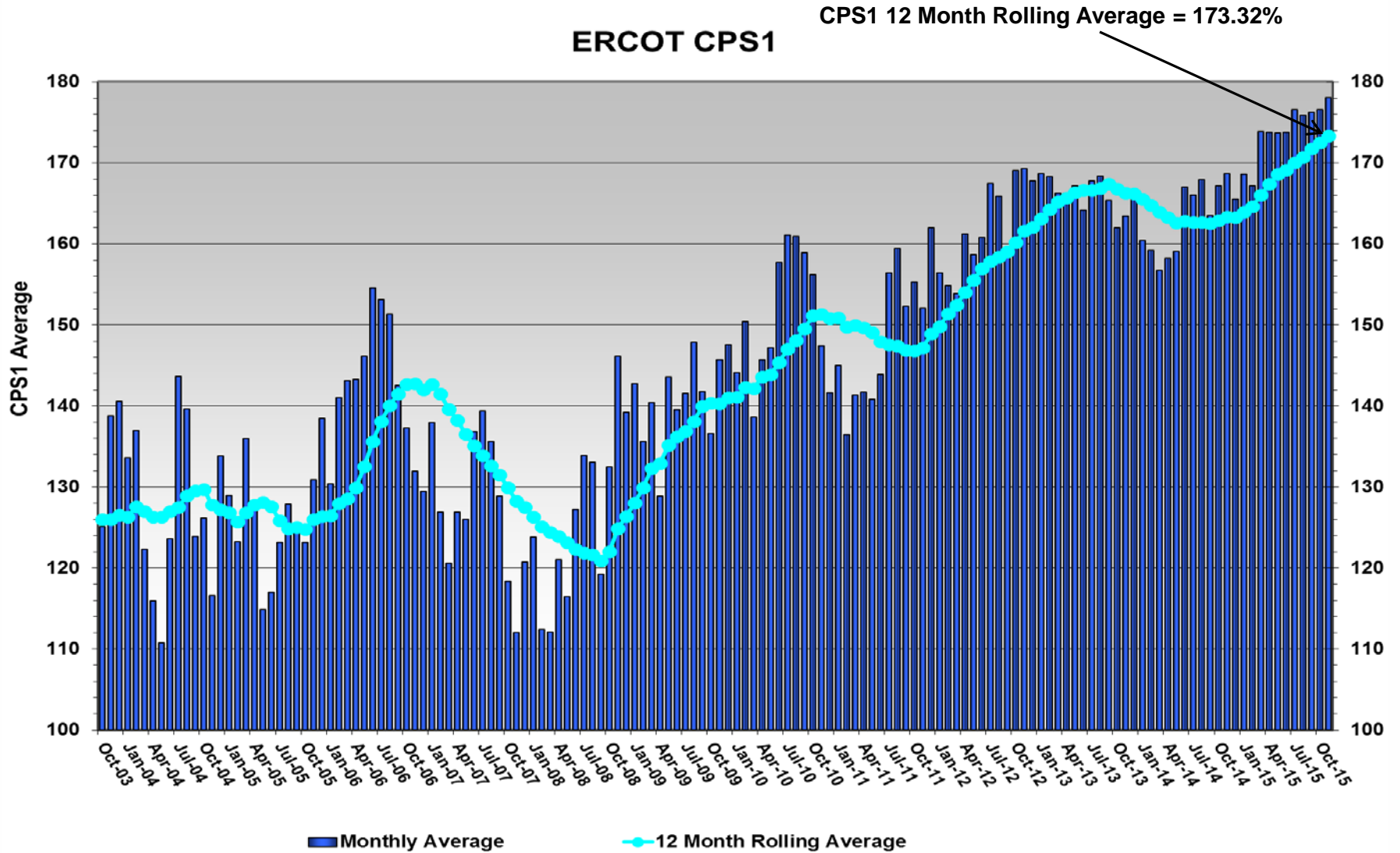
# Actual Wind Output plus Curtailments vs. Wind Day-Ahead COPs for All Hours – November 2015



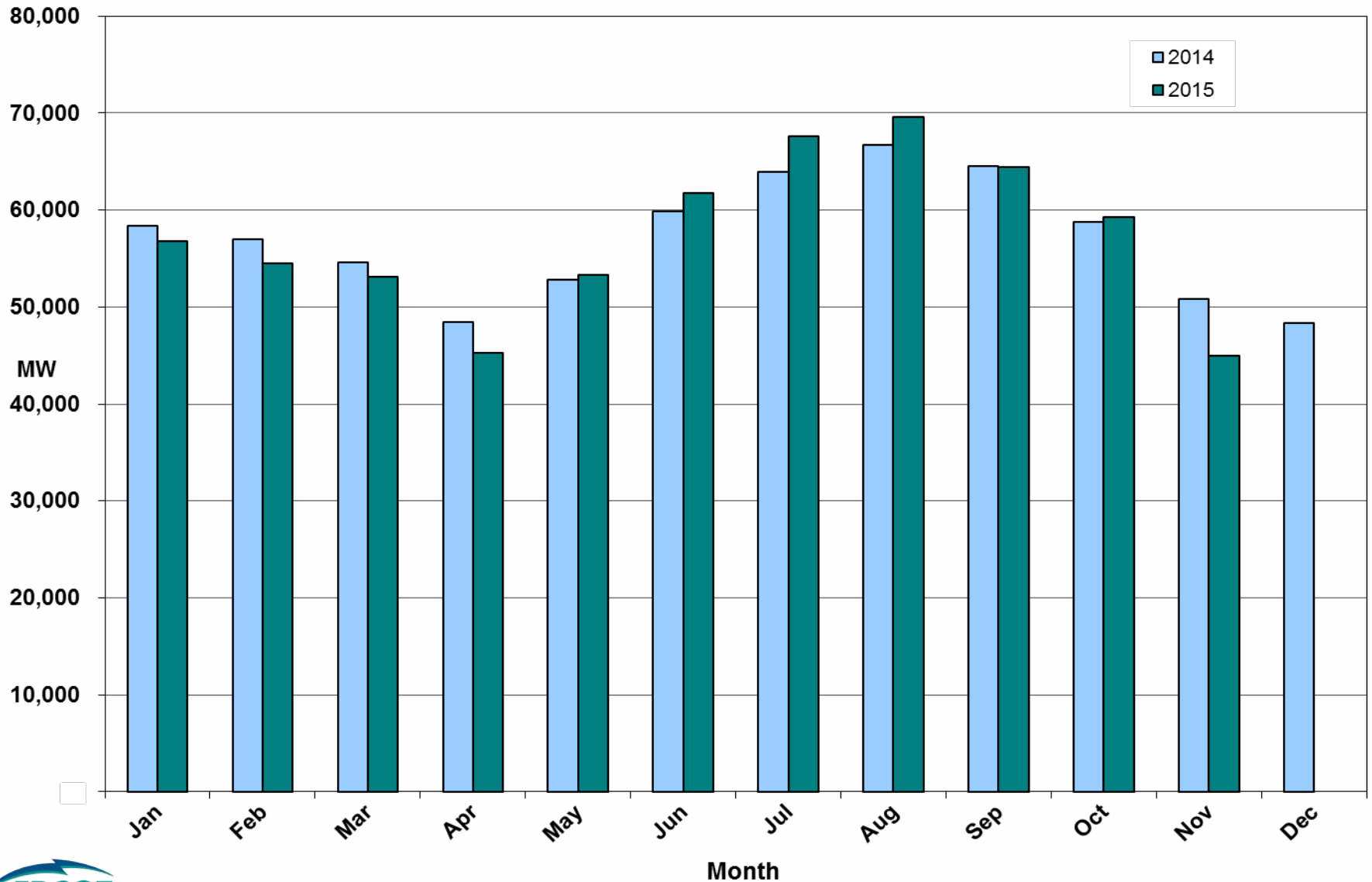
**Note: QSEs must use the AWST 50% probability of exceedance forecast as the HSL in their COPs**



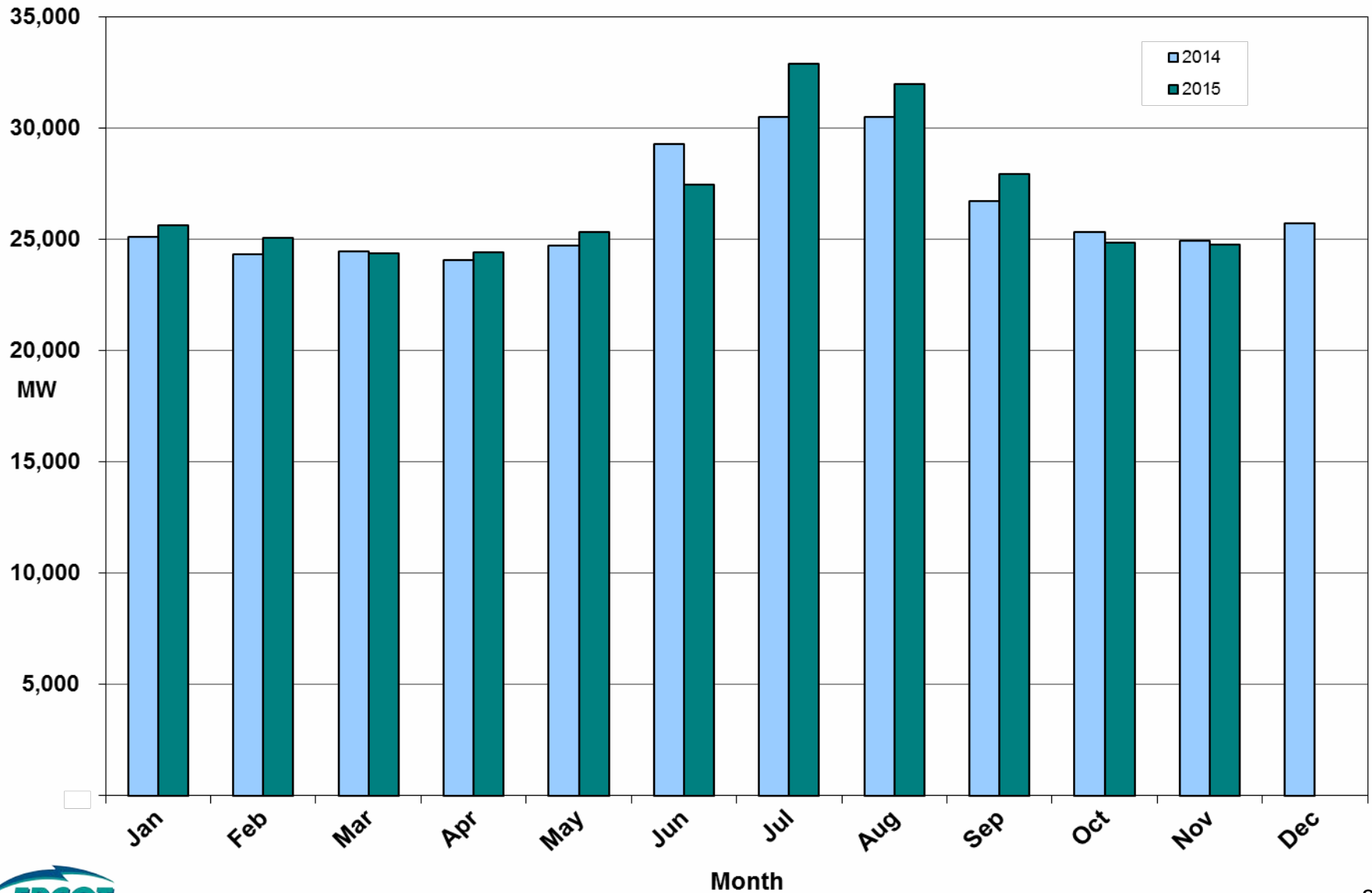
# ERCOT's CPS1 Monthly Performance – November 2015



# Monthly Peak Actual Demand – November 2015



# Monthly Minimum Actual Demand – November 2015





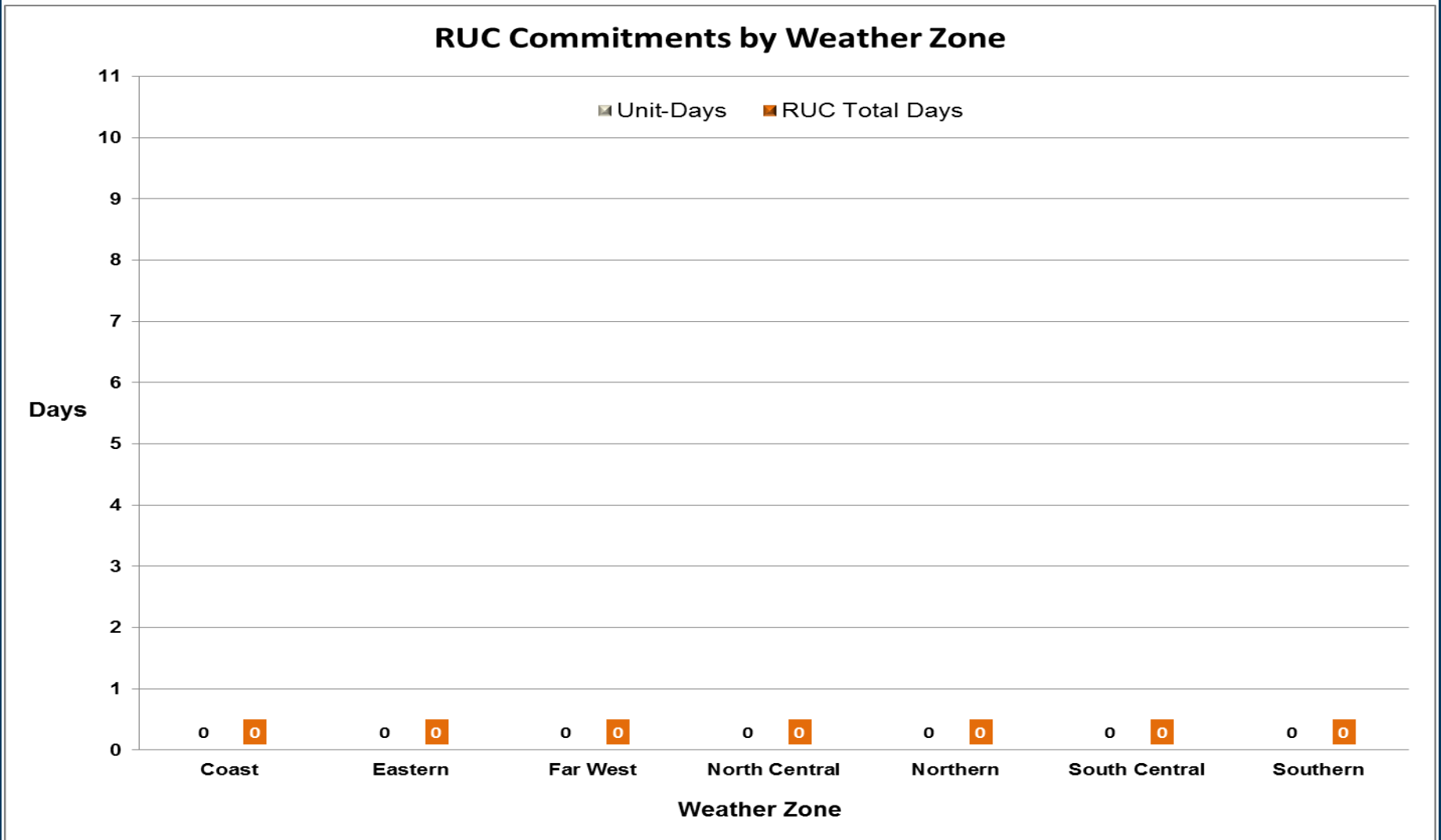
# Day-Ahead Load Forecast Performance – November 2015

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

	2012 MAPE	2013 MAPE	2014 MAPE	2015 MAPE	November 2015 MAPE	
Average Annual MAPE	3.02	2.86	2.83	2.91	3.32	
Lowest Monthly MAPE	2.51	2.07	2.15	1.89	Lowest Daily MAPE	0.88 Nov – 14
Highest Monthly MAPE	3.49	3.50	3.70	3.81	Highest Daily MAPE	7.97 Nov – 28

# Reliability Unit Commitment (RUC) Capacity by Weather Zone

November 2015



## Generic Transmission Constraints (GTCs) – November 2015

GTCs	14-Nov	15-Sep	15-Oct	15-Nov	Last 12 Months Total Days <small>(Dec 14 – Nov 15)</small>
	Days GTCs	Days GTCs	Days GTCs	Days GTCs	
North – Houston	0	0	0	0	3
Valley Import	0	0	3	0	5
Zorillo - Ajo	-	4	9	9	94
Panhandle	-	0	0	3	3
Laredo	-	2	1	1	3
Liston	-	-	-	0	0

**GTC:** 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.

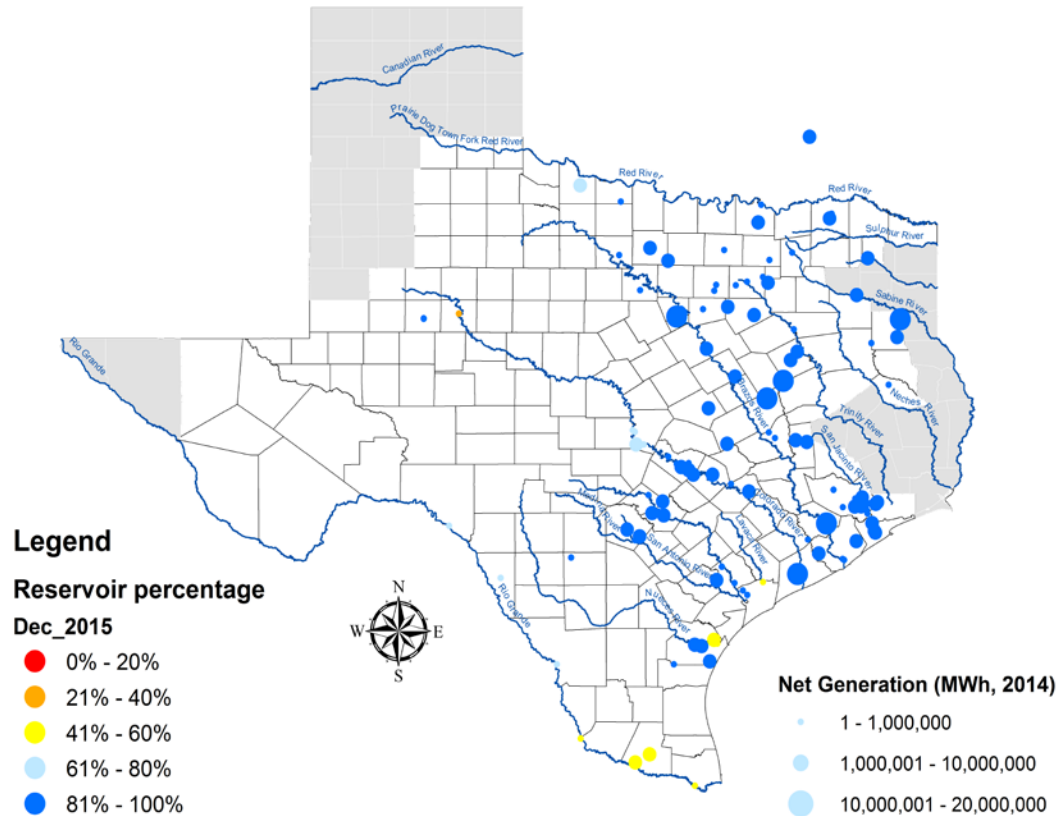
**Note:** This table lists how many times a constraint has been activated to avoid exceeding a GTC limit, it does not imply an exceedance of the GTC occurred.

## Advisories and Watches - **November 2015**

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- One OCN due to ERCOT developing a new Generic Transmission Constraint (“Liston”) near the Garza JL Bates area for voltage stability.
  - Issued on 11/12

# Lake Levels Update – December 1, 2015



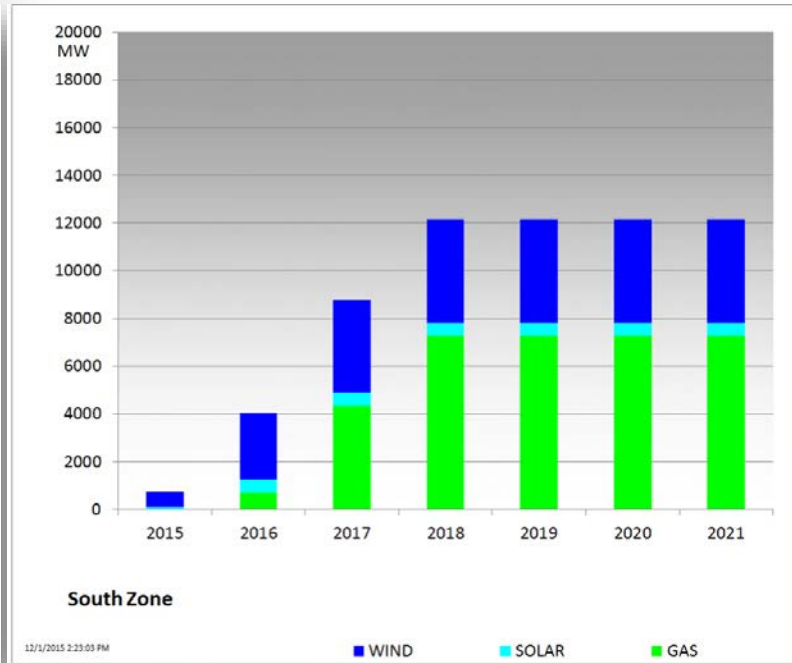
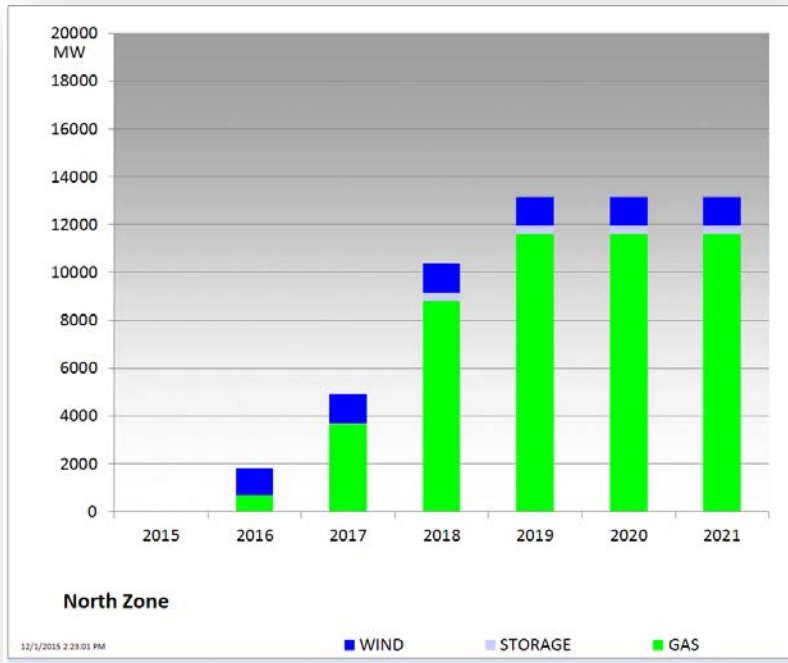
## Planning Summary – November 2015

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- ERCOT is currently tracking 262 active generation interconnection requests totaling 62,510 MW. This includes 24,071 MW of wind generation.
- ERCOT is currently reviewing proposed transmission improvements with a total cost of more than \$1.1 Billion.
- Transmission Projects endorsed in 2015 total \$413.3 Million.
- All projects (in engineering, routing, licensing, and construction) total approximately \$6.74 Billion.
- Transmission Projects energized in 2015 total about \$652.9 Million.

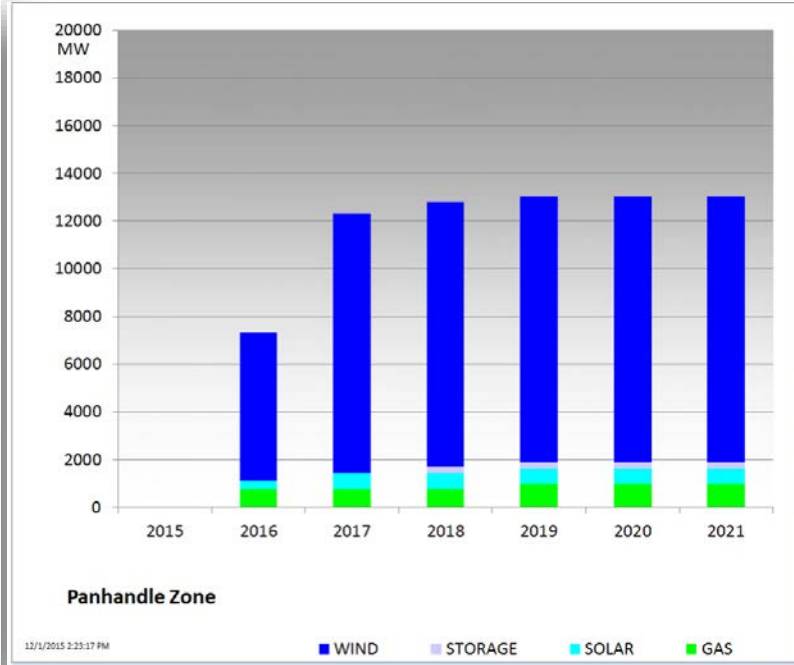
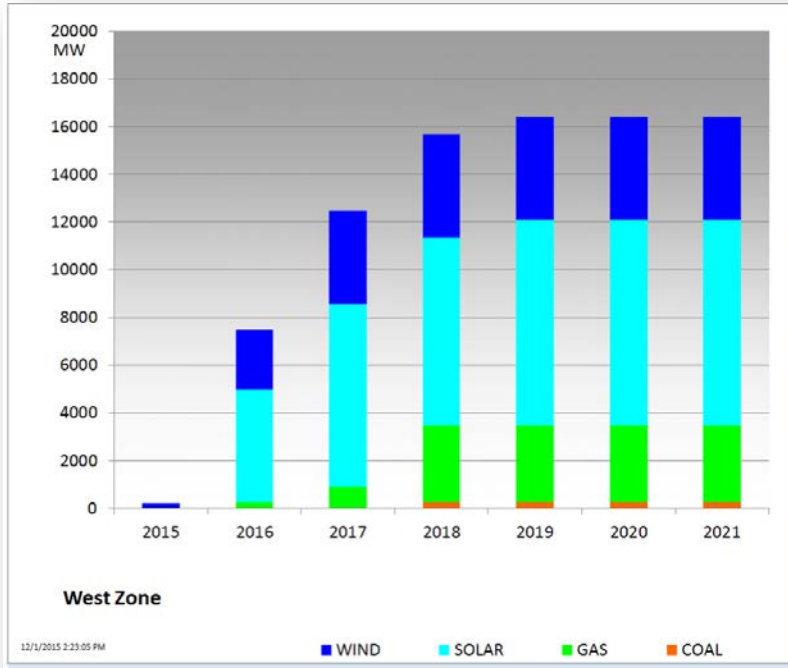


# Cumulative MW Capacity of Interconnection Requests by Zone – November 2015

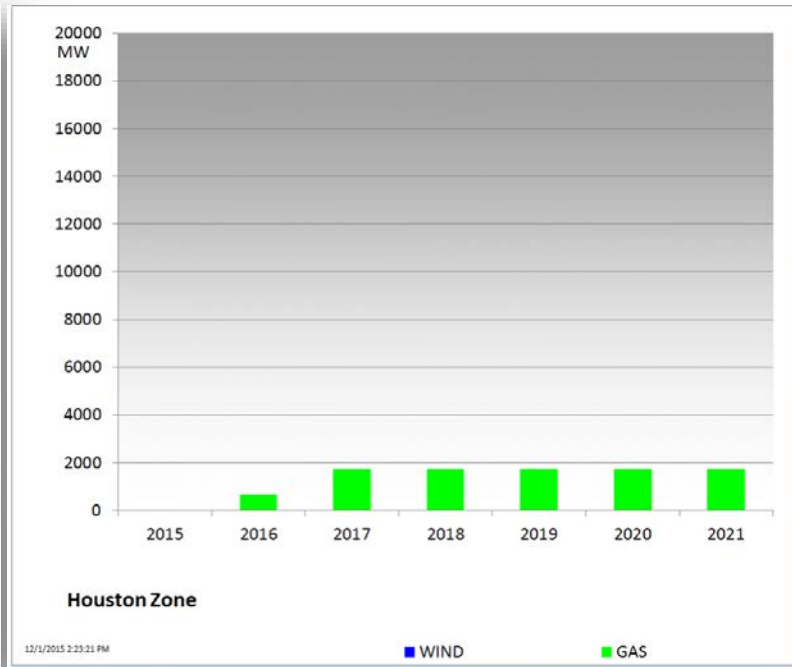
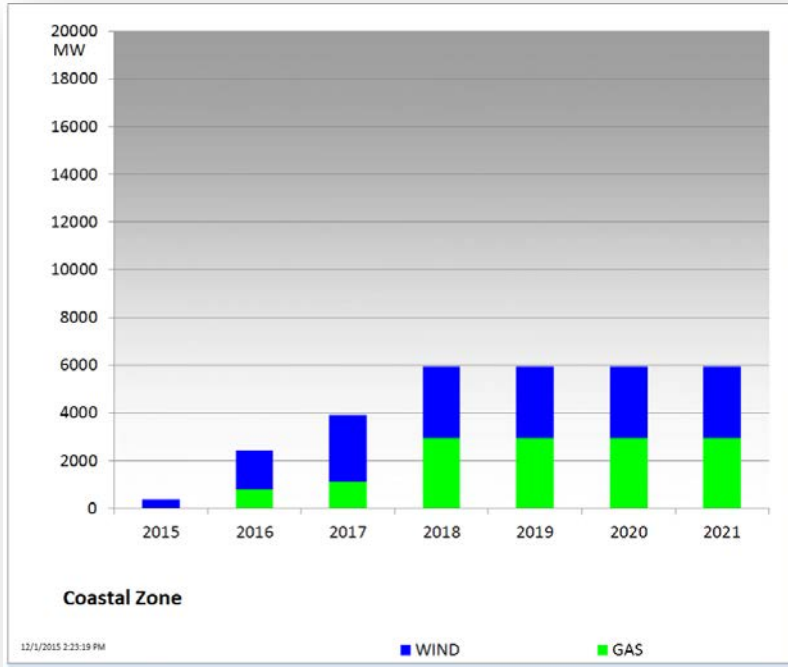




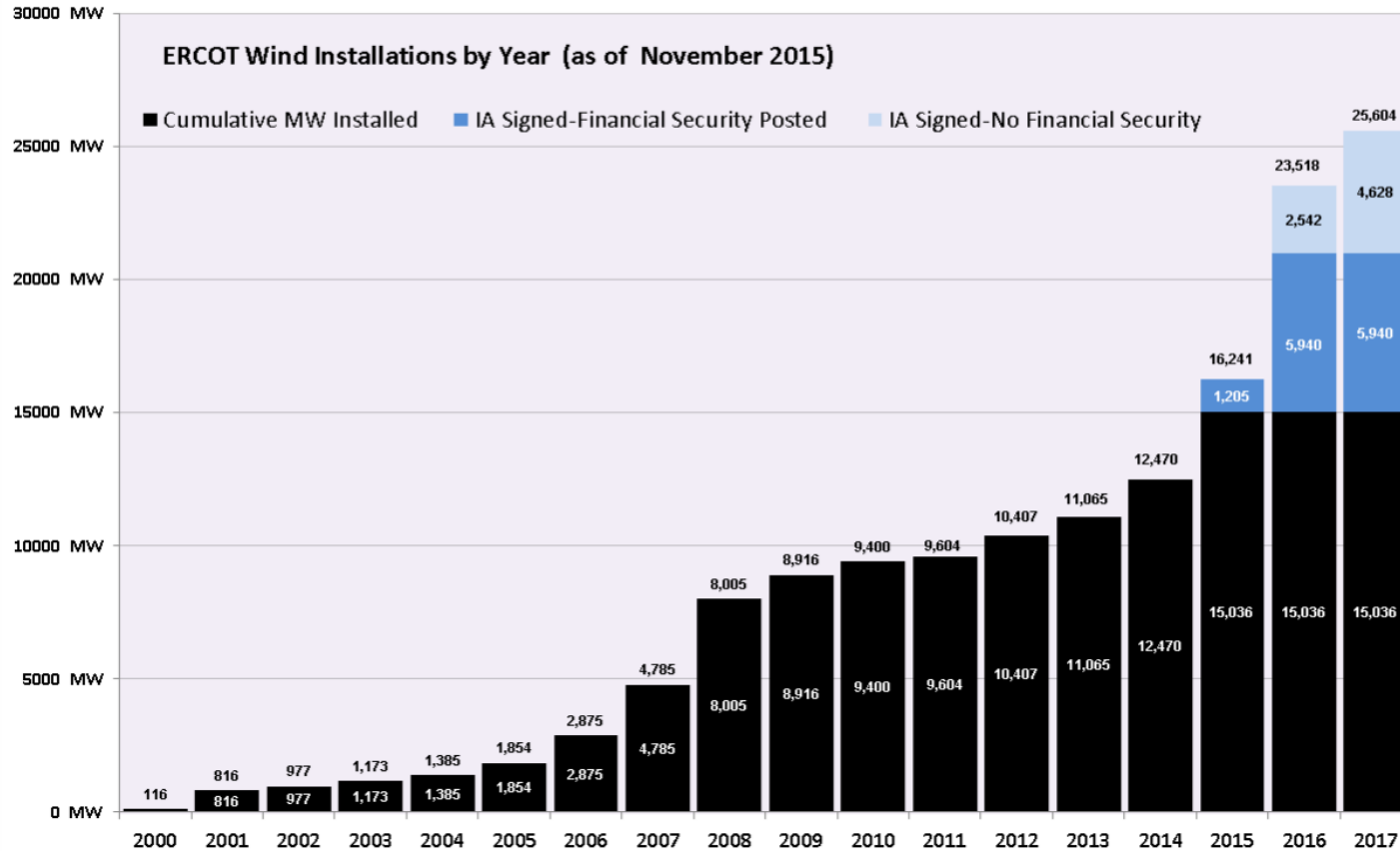
# Cumulative MW Capacity of Interconnection Requests by Zone – November 2015



# Cumulative MW Capacity of Interconnection Requests by Zone – November 2015



# Wind Generation – November 2015

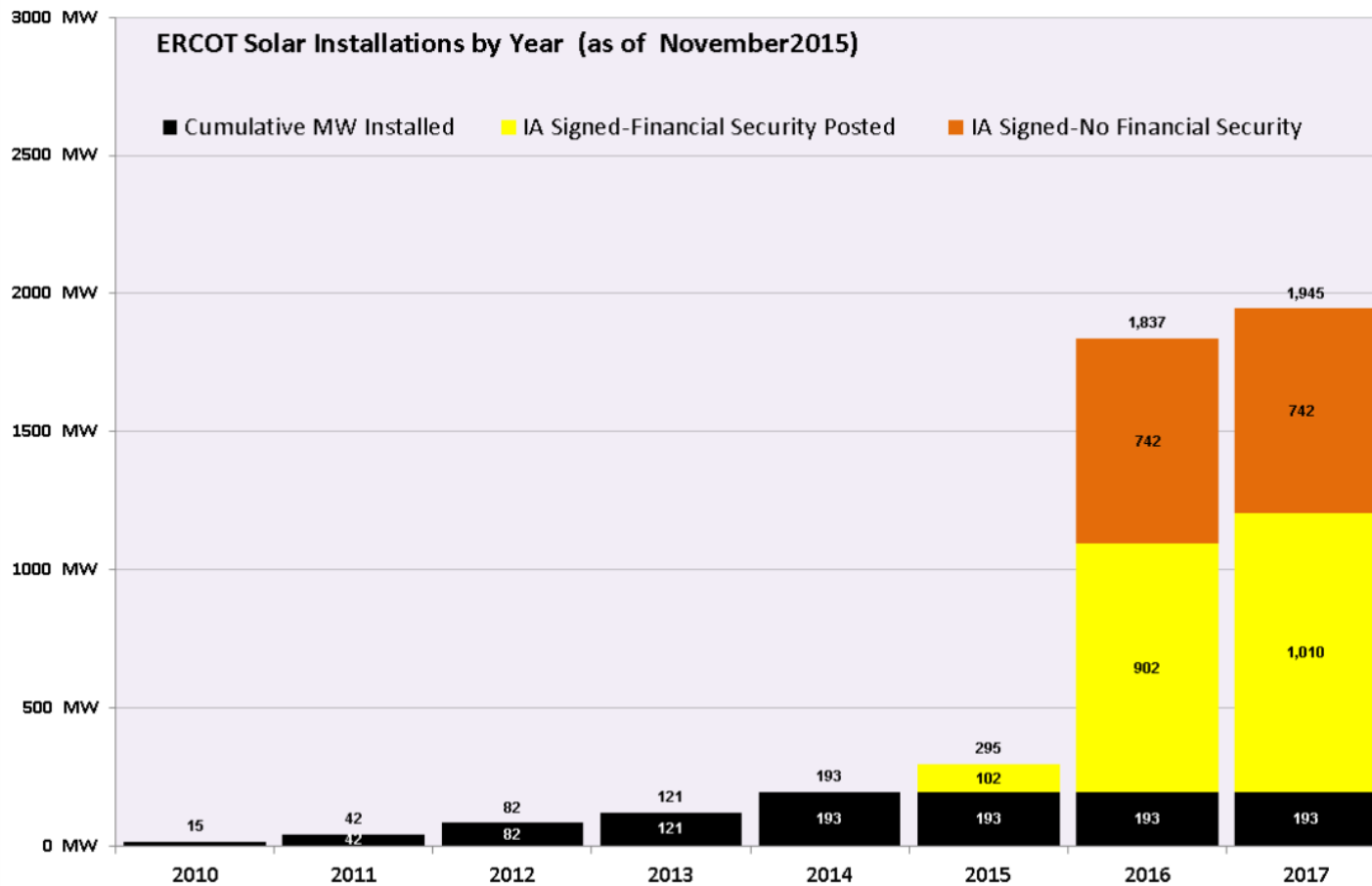


The data presented here is based upon the latest registration data provided to ERCOT by the resource owners and can change without notice. Any capacity changes will be reflected in current and subsequent years' totals. Scheduling delays will also be reflected in the planned projects as that information is received. This chart reflects planned units in the calendar year of submission rather than installations by peak of year shown.

Financial security posted for funding interconnection facilities does not include CREZ security deposits, which are refunded to the Interconnecting Entity when an IA is signed.

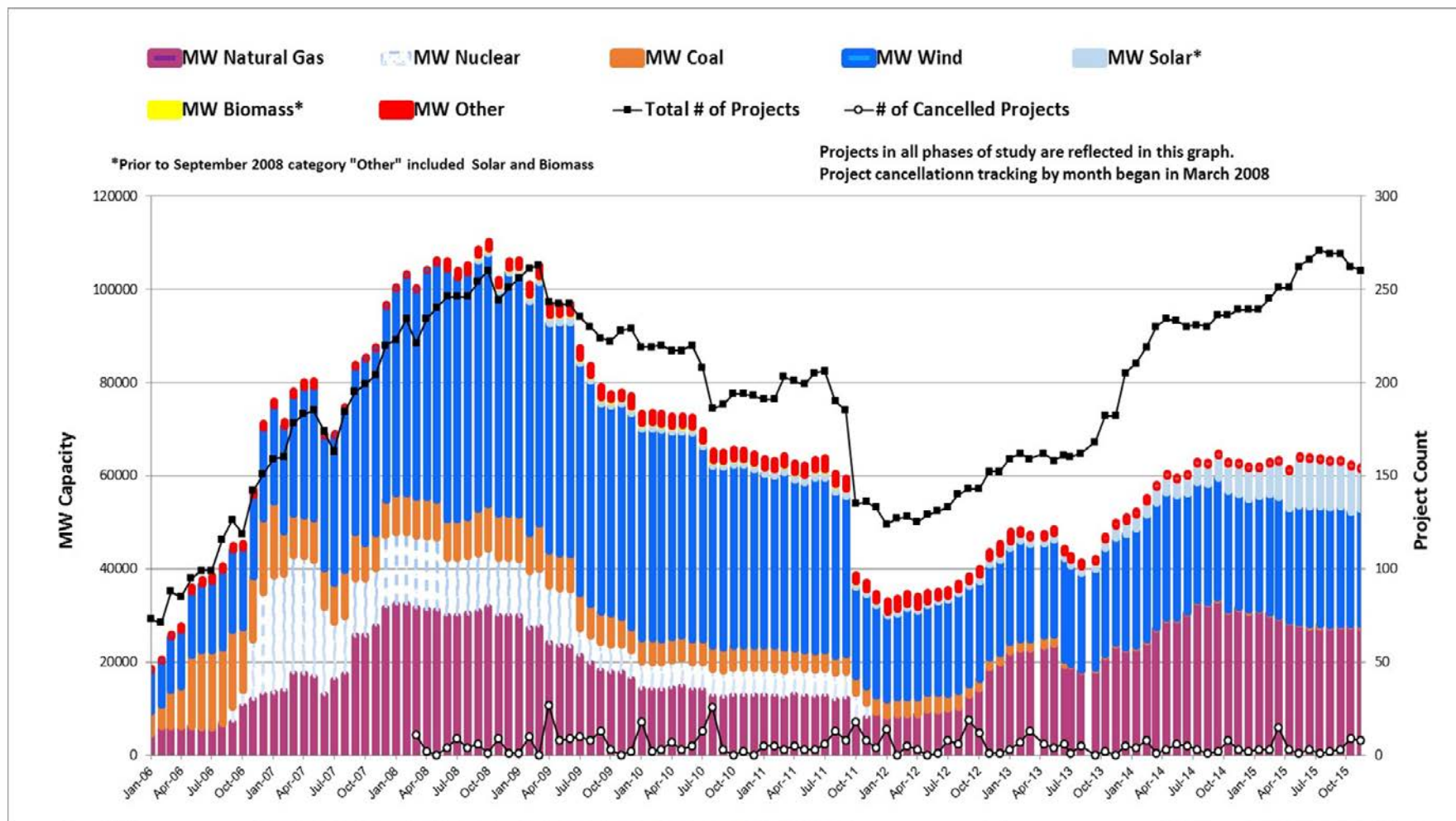


# Solar Generation – November 2015

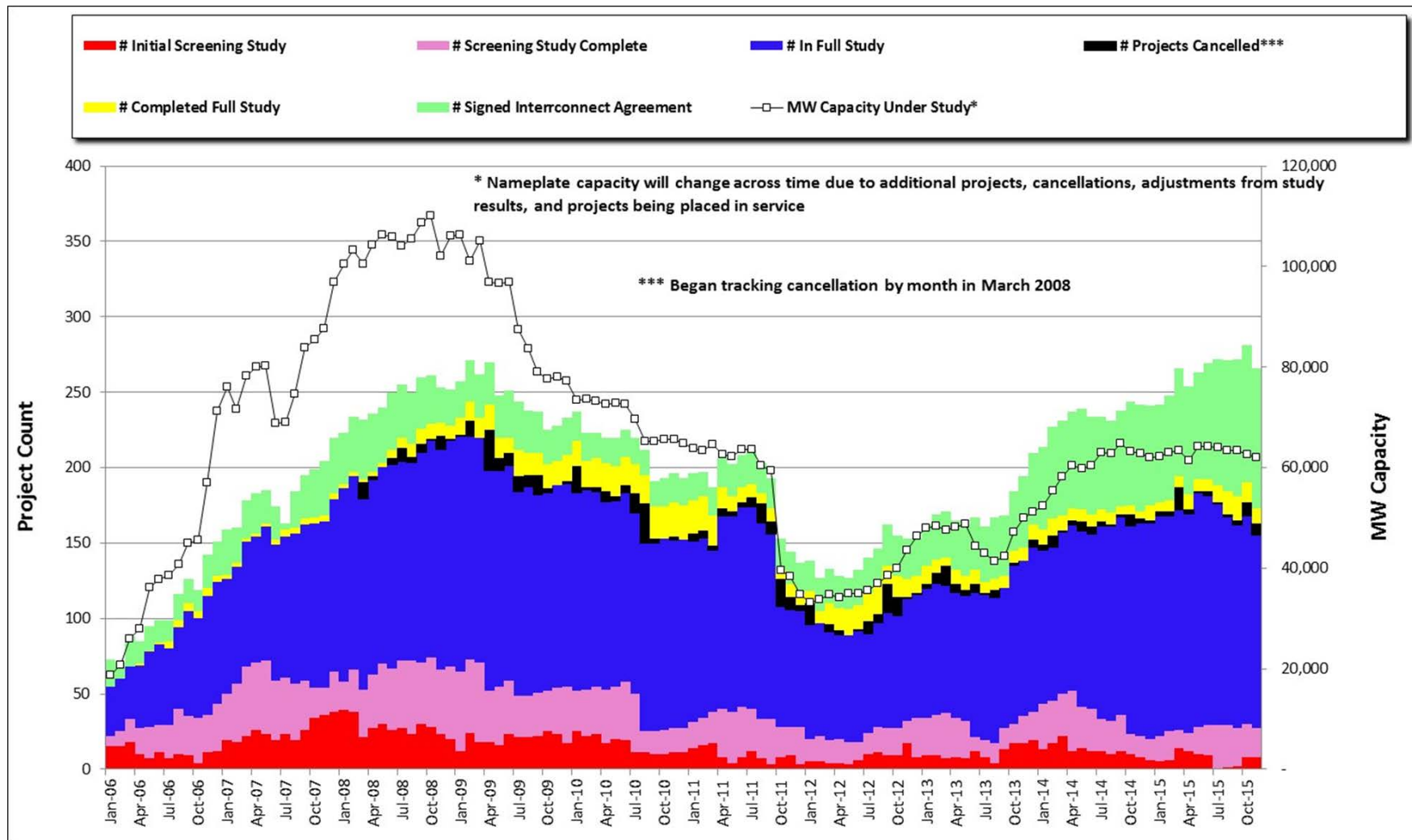


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# Generation Interconnection Activity by Fuel – November 2015



# Generation Interconnection Activity by Project Phase – November 2015

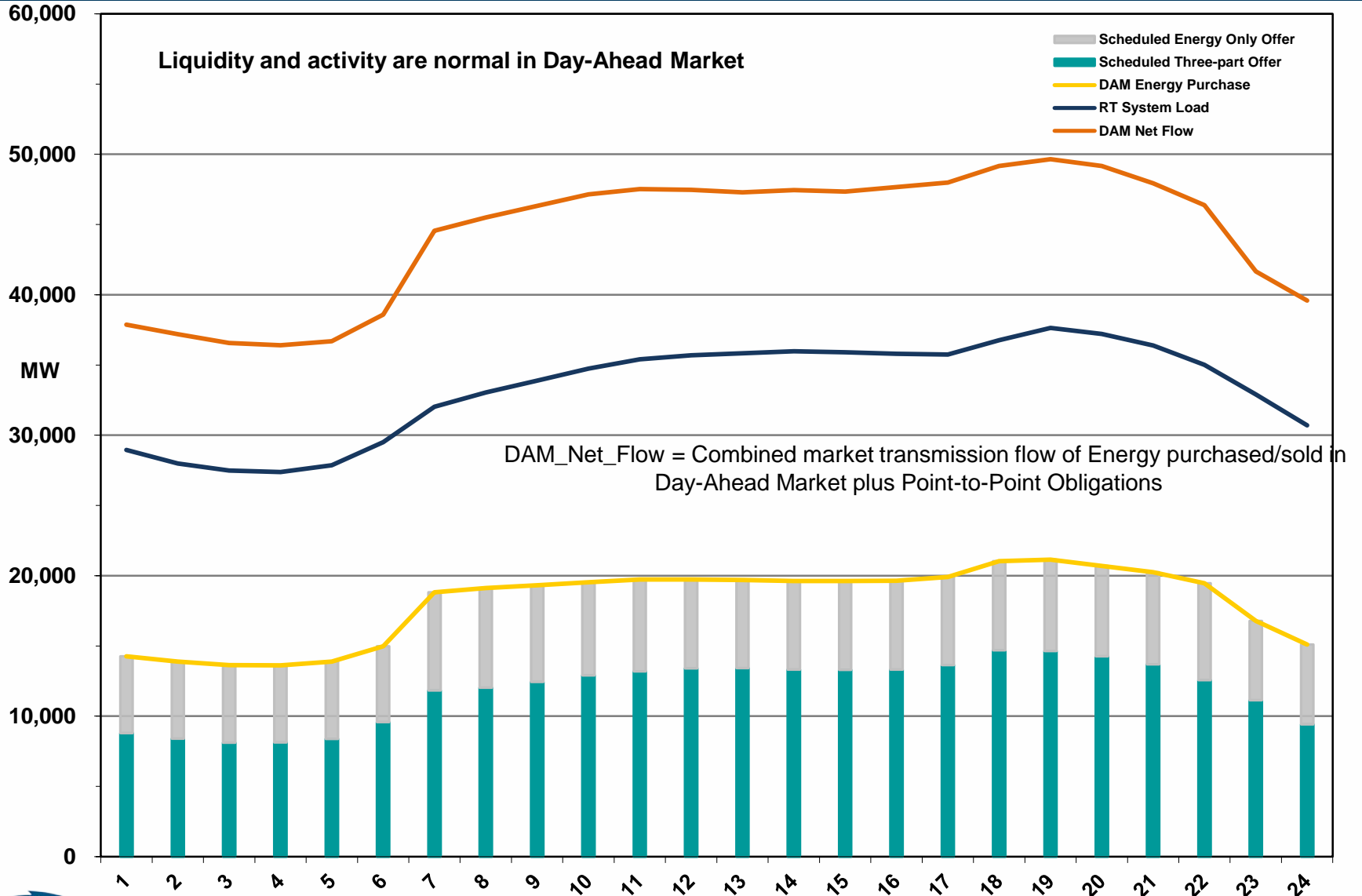


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# **Market Operations**

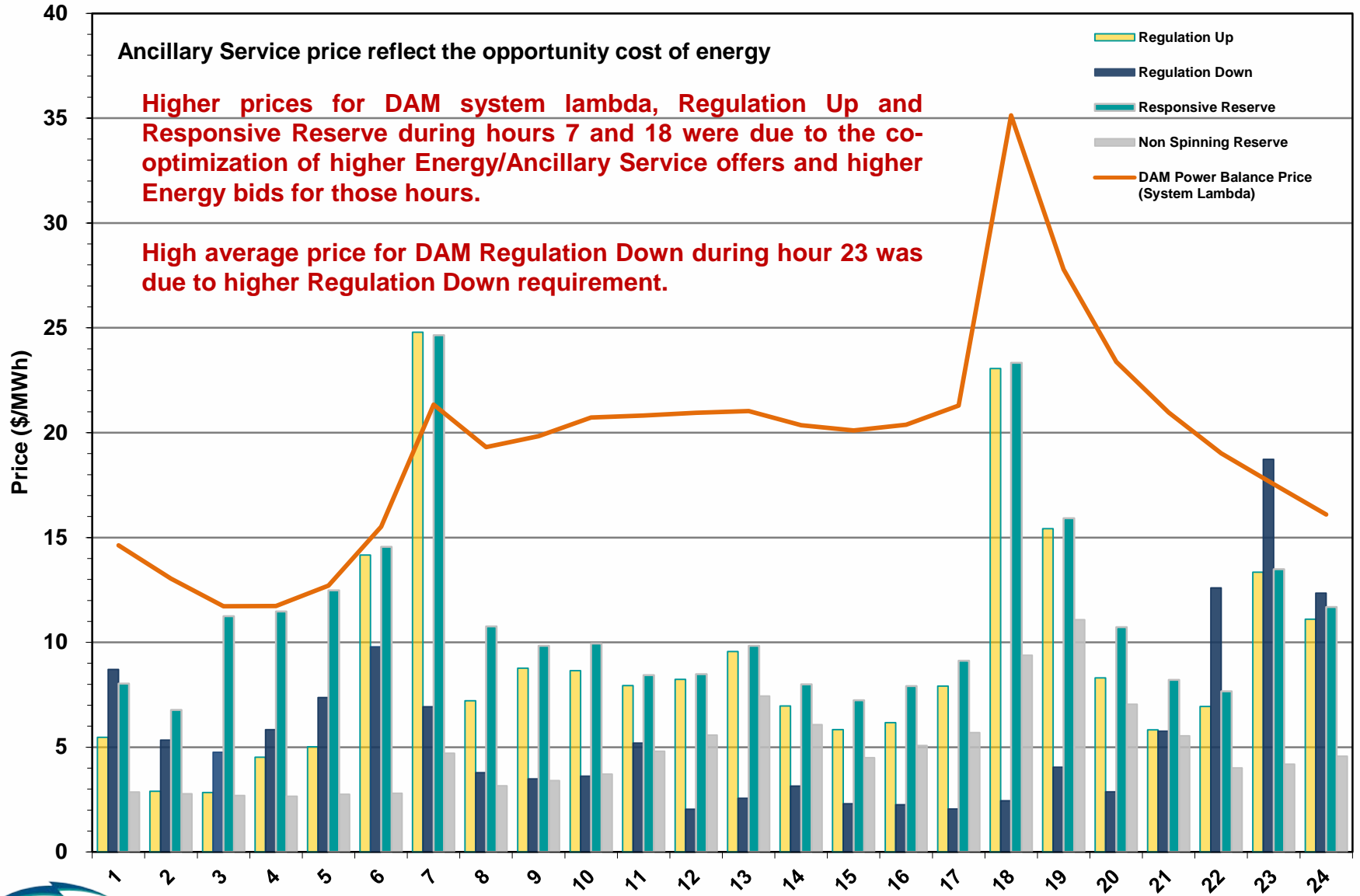
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# Day-Ahead Schedule (Hourly Average) – November 2015

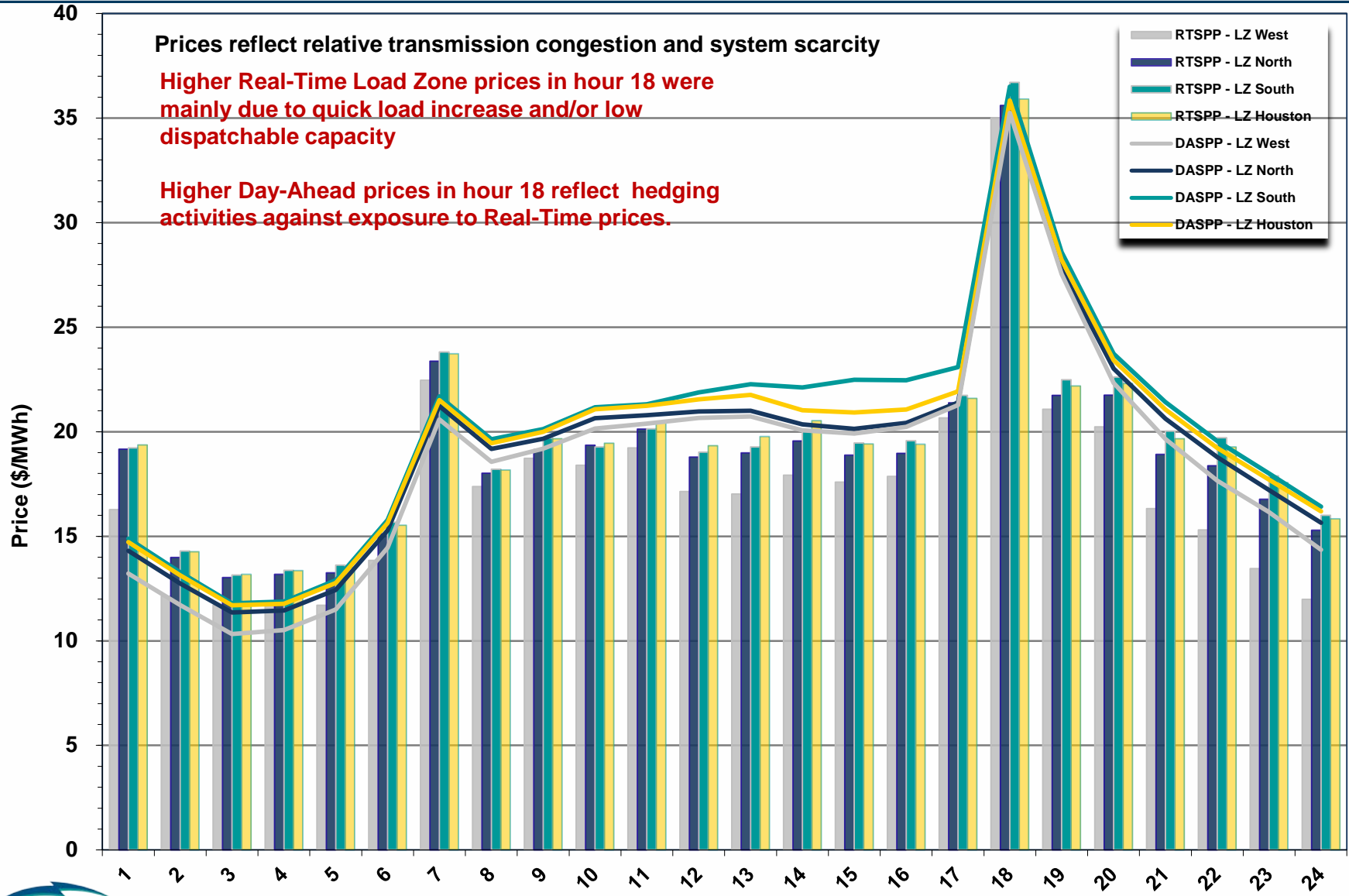




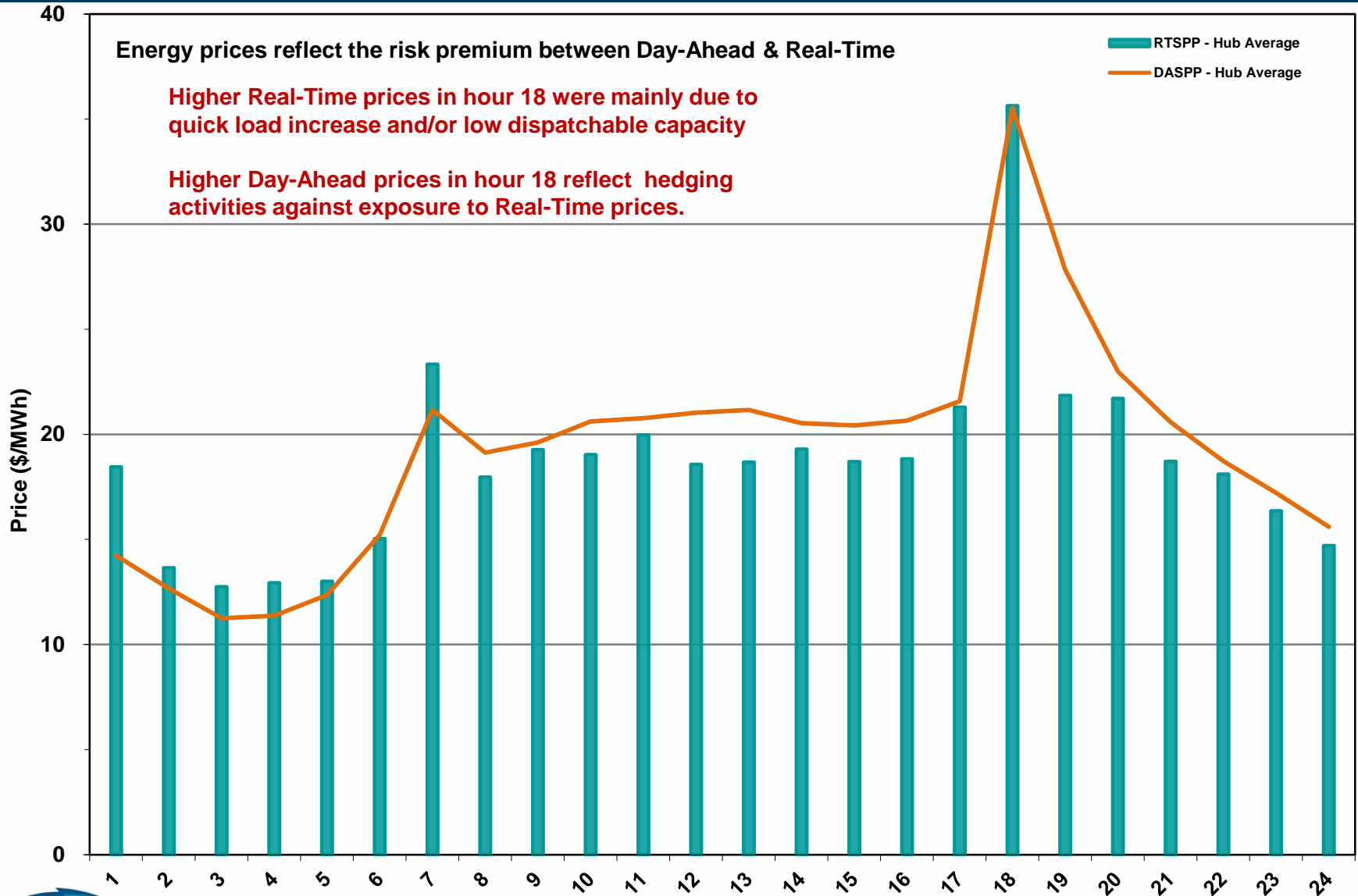
# Day-Ahead Electricity And Ancillary Service Hourly Average Prices – November 2015



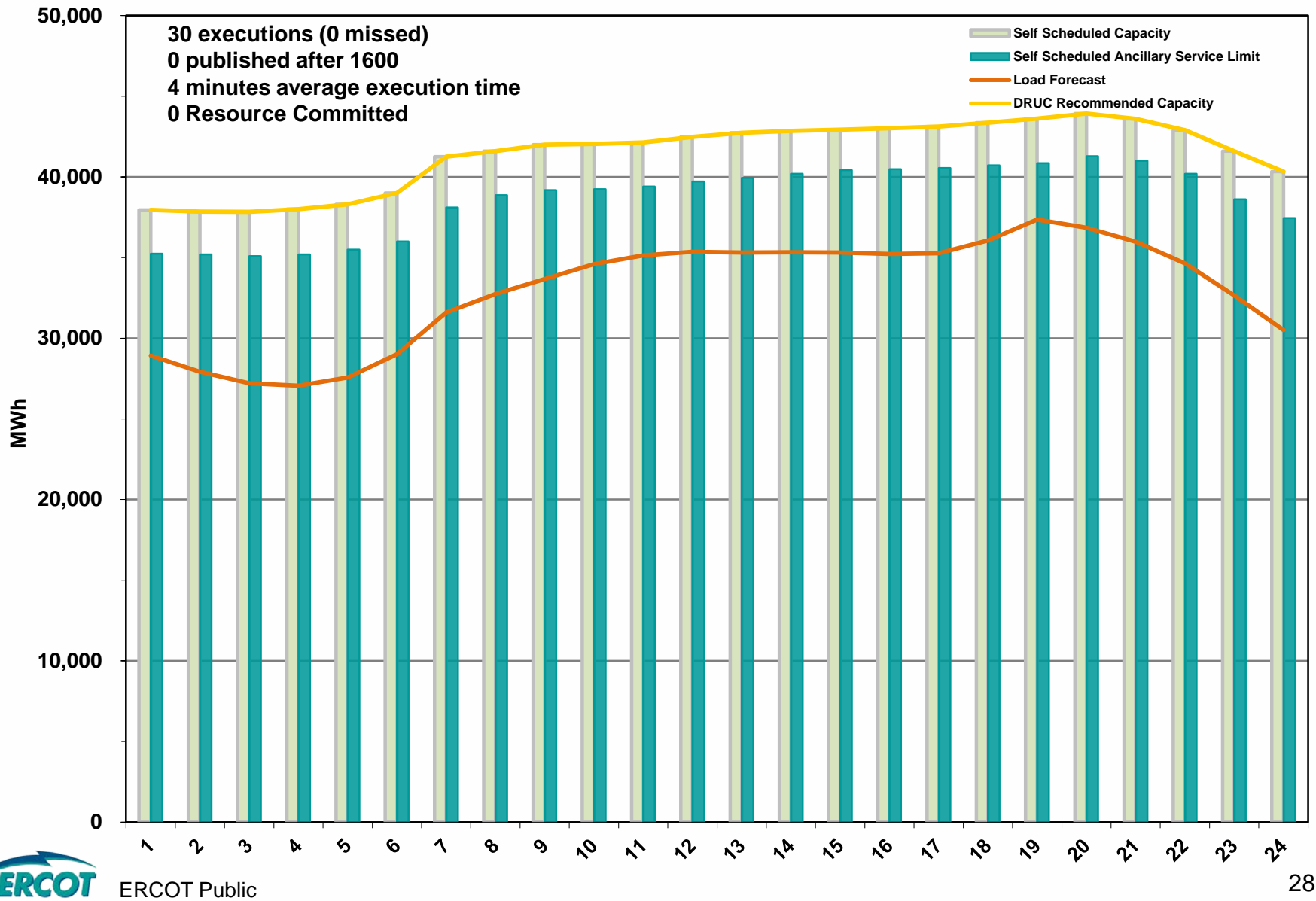
# Day-Ahead Vs Real-Time Load Zone SPP (Hourly Average) – November 2015



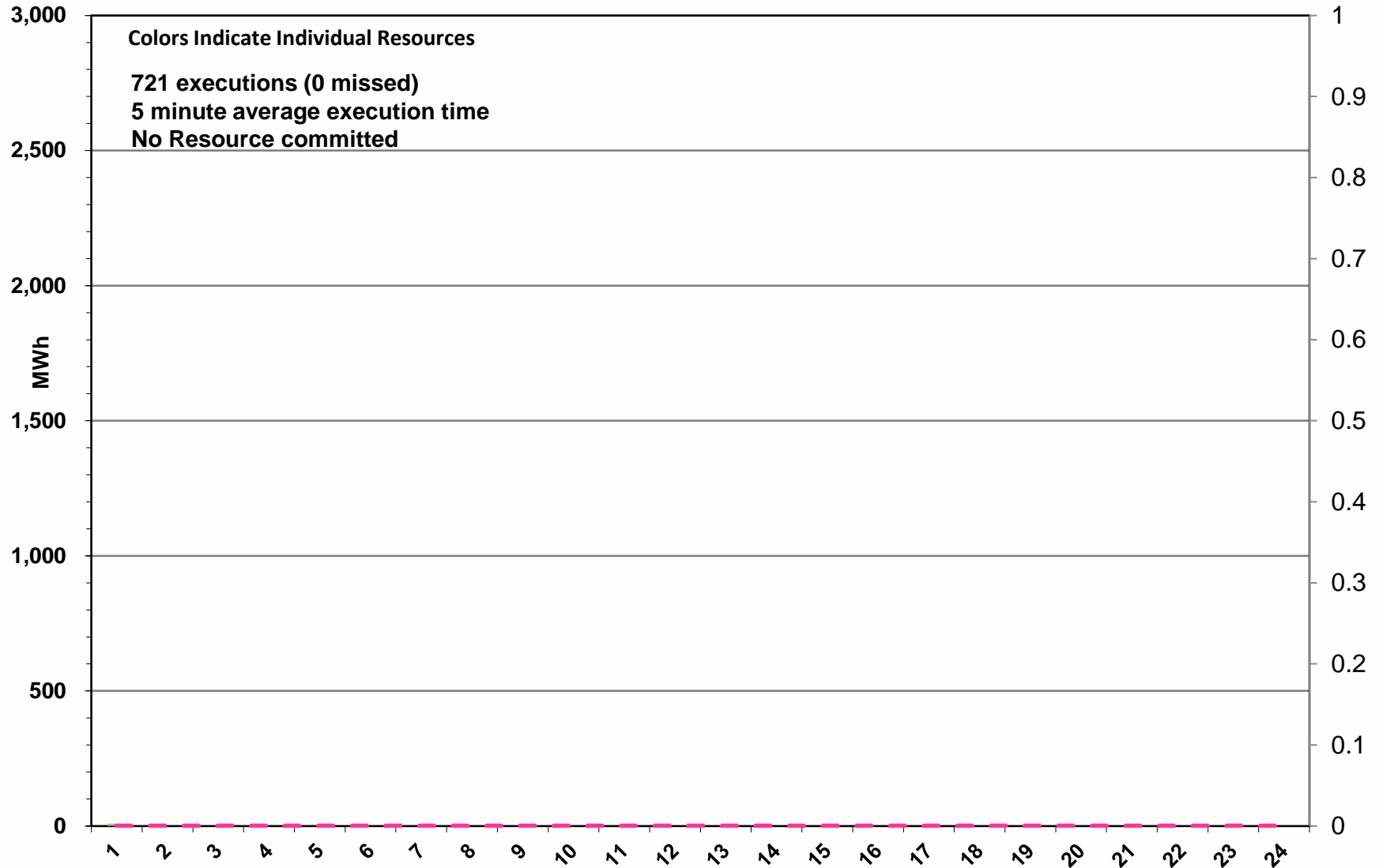
# Day-Ahead Vs Real-Time Hub Average SPP (Hourly Average) – November 2015



# DRUC Monthly Summary (Hourly Average) – November 2015



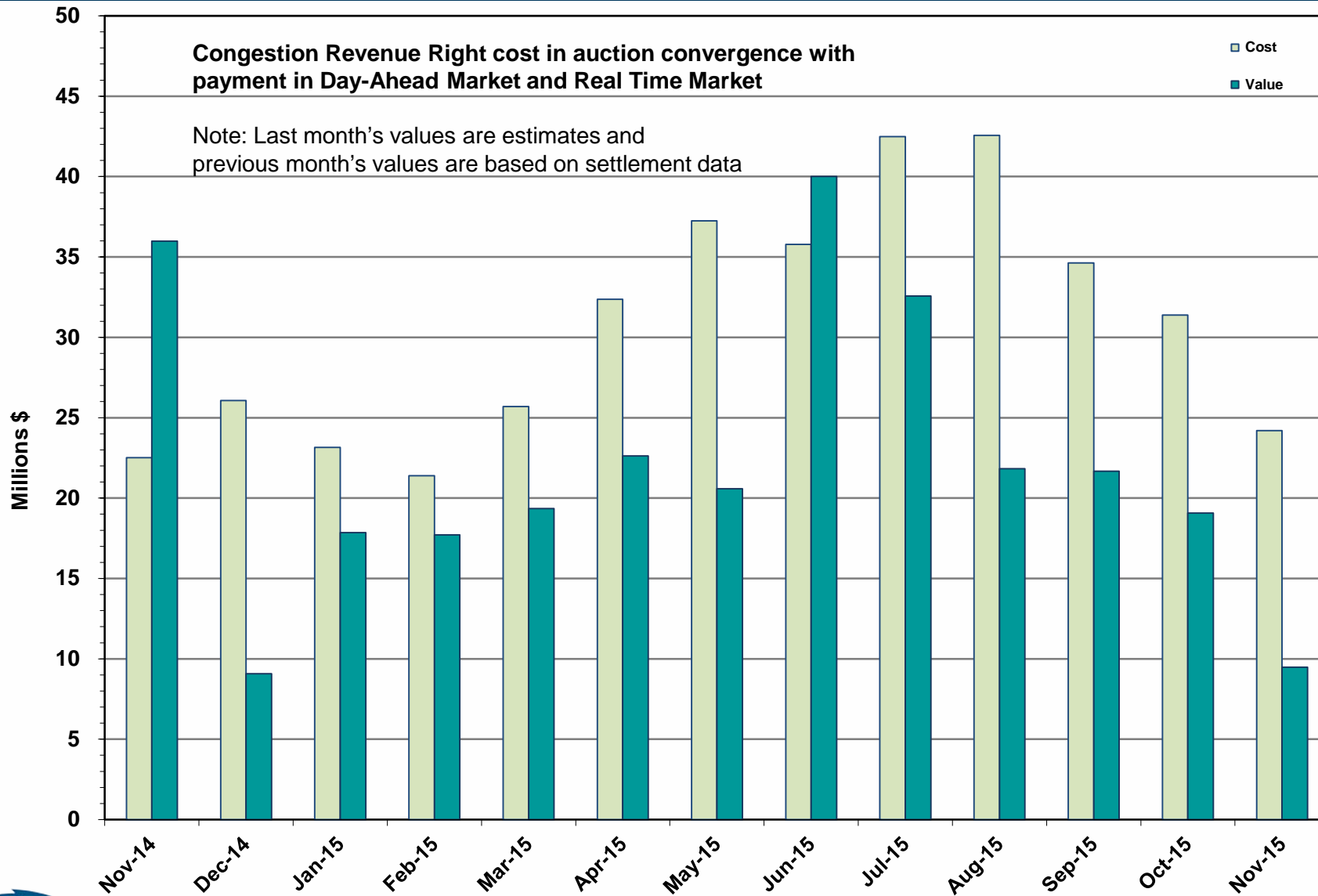
# HRUC Monthly Summary and Real Time On-Line Reliability Deployment Price Adder (RTORDPA) – November 2015



# Non-Spinning Reserve Service Deployment – November 2015

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

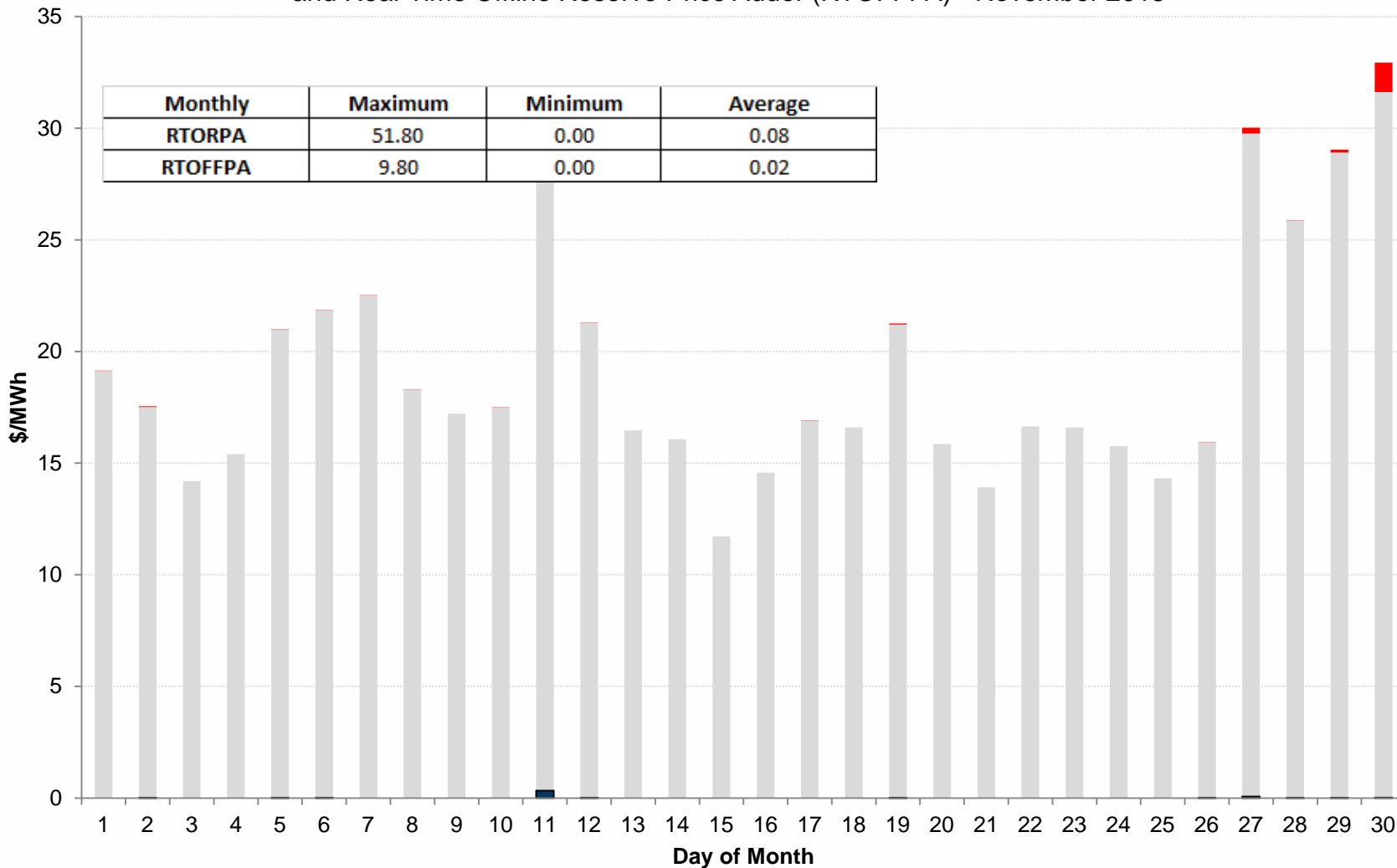
# CRR Price Convergence – November 2015



# ORDC Price Adder (Daily Average) – November 2015

Average Daily Real-Time System Lambda, Real-Time On-Line Reserve Price Adder (RTORPA), and Real-Time Offline Reserve Price Adder (RTOFFPA) - November 2015

Monthly	Maximum	Minimum	Average
RTORPA	51.80	0.00	0.08
RTOFFPA	9.80	0.00	0.02





# ERS Procurement for **October 2015 – January 2016**

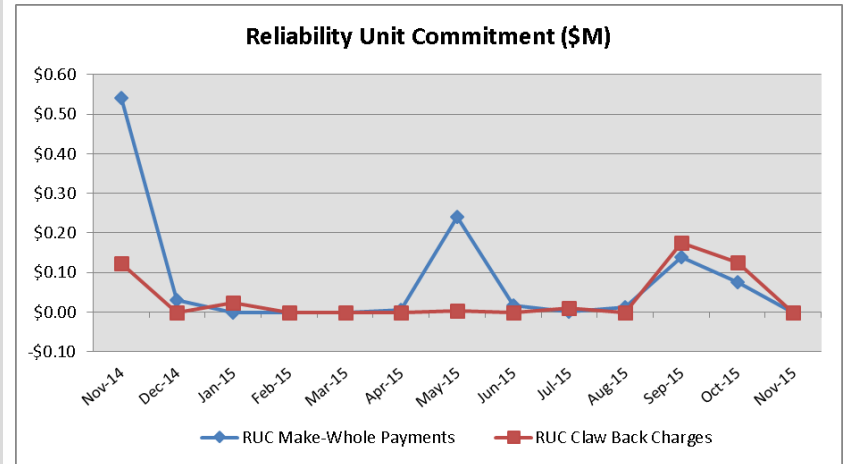
	<b>BH1</b>	<b>BH2</b>	<b>BH3</b>	<b>NBH</b>
Non Weather-Sensitive ERS-10 MW	<b>372.082</b>	<b>416.611</b>	<b>390.329</b>	<b>349.300</b>
Non Weather-Sensitive ERS-30 MW	<b>546.023</b>	<b>563.297</b>	<b>550.152</b>	<b>433.297</b>
Total MW Procured	<b>918.105</b>	<b>979.908</b>	<b>940.481</b>	<b>782.597</b>
Clearing Price	<b>\$14.46</b>	<b>\$2.59</b>	<b>\$14.00</b>	<b>\$3.21</b>

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

# Reliability Services – November 2015

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



RUC Make-Whole Payments were \$0.00M in November 2015.  
RUC Clawback Charges were \$0.00M.

There was \$0.00M allocated directly to load in November 2015, compared to:

- \$0.13M in October 2015
- \$0.12M in November 2014

# Capacity Services – November 2015

Capacity Services	\$ in Millions
Regulation Up Service	\$3.22
Regulation Down Service	\$2.00
Responsive Reserve Service	\$21.36
Non-Spinning Reserve Service	\$6.61
Black Start Service	\$0.61
Voltage Services - Reactive Power	\$0.00
Voltage Services - Lost Opportunity	\$0.00
<b>Total Charges</b>	<b>\$33.80</b>

Capacity Services costs increased from last month and decreased from November 2014.

November 2015 cost was \$33.80M, compared to:

- A charge of \$31.85M in October 2015
- A charge of \$45.28M in November 2014

# Energy Settlement – November 2015

Day-Ahead Market Energy Settlement	\$ in Millions
Energy Purchases	\$266.20
Point to Point Obligation Purchases	\$8.88
RMR Day-Ahead Revenue	\$0.00
Energy Sales	(\$263.57)
Day-Ahead Congestion Rent	\$11.51
Day-Ahead Market Make-Whole Payments	(\$0.05)

Day-Ahead Market and Real-Time Market energy settlement activity decreased from last month and from November 2014.

Real-Time Market Energy Settlement	\$ in Millions
Energy Imbalance at a Resource Node	(\$251.39)
Energy Imbalance at a Load Zone	\$369.28
Energy Imbalance at a Hub	(\$107.25)
Real Time Congestion from Self Schedules	(\$0.02)
Block Load Transfers and DC Ties	(\$0.89)
Impact to Revenue Neutrality	\$9.73
Emergency Energy Payments	(\$0.08)
Base Point Deviation Charges	\$0.19
Real-Time Metered Generation (MWh in millions)	23.86

# Congestion Revenue Rights (CRR) – November 2015

	\$ in Millions
Annual Auction	(\$16.78)
Monthly Auction	(\$5.13)
<b>Total Auction Revenue</b>	<b>(\$22.10)</b>
Day-Ahead CRR Settlement	(\$9.48)
Day-Ahead CRR Short-Charges	\$0.02
Day-Ahead CRR Short-Charges Refunded	(\$0.02)
Real-Time CRR Settlement	\$0.00
Real-Time CRR Short-Charges	\$0.00
Real-Time CRR Short-Charges Refunded	\$0.00
<b>Total CRR Funding</b>	<b>(\$9.48)</b>
Day-Ahead Point to Point Obligations Settlement	\$8.88
Real-Time Point to Point Obligation Settlement	(\$9.42)
<b>Net Point to Point Obligation Settlement</b>	<b>(\$0.54)</b>

Congestion Revenue Rights settlement payments were fully funded and excess funds were deposited into the CRR Balancing Account Fund.

Point to Point Obligations settled with a net credit of \$0.54M compared to a net credit of \$4.27M last month.

# CRR Balancing Account Fund – November 2015

<b>CRR Balancing Account Fund</b>	<b>\$ in Millions</b>
<b>Beginning Balance for the Month</b>	\$10.00
<b>CRR Balancing Account Credit Total</b>	\$2.04
<b>CRR PTP Option Award Charges</b>	\$.06
<b>Day-Ahead CRR Short-Charges Refunded</b>	(\$0.02)
<b>Load Allocated CRR Amount</b>	(\$2.08)
<b>Total Fund Amount</b>	\$10.00

ERCOT implemented the rolling CRR Balancing Account Fund beginning with Operating Month December 2014.

In the month of November 2015, the fund cap remained at \$10M and excess funds of \$2.08M were allocated to Load.

# Revenue Neutrality – November 2015

## Revenue Neutrality Settlement

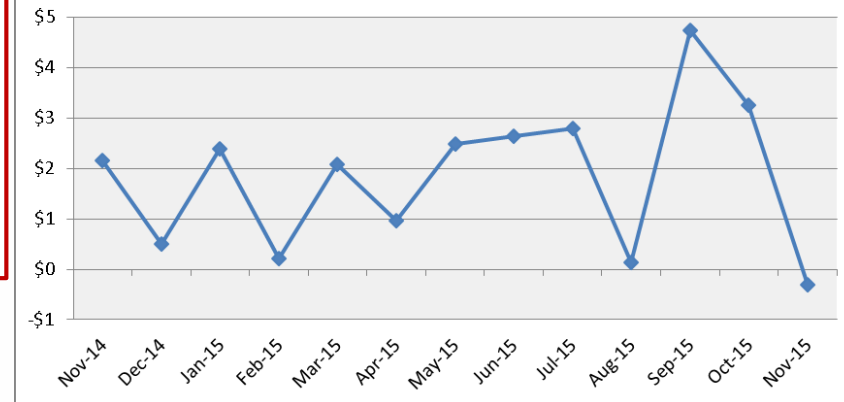
	\$ in Millions
Real-Time Point to Point Obligation Settlement	(\$9.42)
Real-Time Point to Point Options and Options with Refund Settlement	\$0.00
Real-Time Energy Imbalance Settlement	\$10.64
Real-Time Congestion from Self-Schedules Settlement	(\$0.02)
DC Tie & Block Load Transfer Settlement	(\$0.89)
<b>Charge to Load</b>	<b>(\$0.31)</b>

Revenue Neutrality charges to load decreased compared to last month and compared to November 2014.

November 2015 was a credit of \$0.31M, compared to:

- \$3.25M charge in October 2015
- \$2.15M charge in November 2014

Revenue Neutrality Uplift (\$M)



# Real-Time Ancillary Service Imbalance (ORDC) – November 2015

Real-Time Ancillary Service Imbalance	\$ in Thousands
Real-Time AS Imbalance Payment Amount	(\$55.28)
Load Allocated AS Imbalance Revenue Neutrality Amount	\$55.28
<b>Total Charges</b>	<b>\$55.28</b>

In November 2015, total credits to QSEs w/an Ancillary Service Imbalance were \$55,284, while total charges in September 2015 were \$ 34,352.

18 of the 30 days in November had settlement dollars equal to \$0 for the day.

All of the 30 days were settled as a net credit to QSEs w/ an Ancillary Service Imbalance and as a charge to QSEs representing load.

The highest payment to QSEs w/an Ancillary Service Imbalance occurred on November 11<sup>th</sup> in the amount of \$29,540.



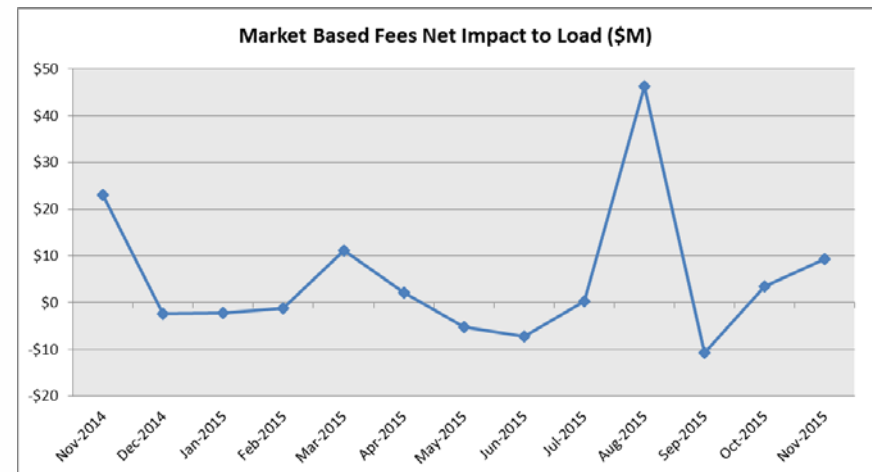
# Net Allocation to Load – November 2015

Market-Based Allocation	\$ in Millions
CRR Auction Revenue Disbursement Settlement	(\$22.10)
Balancing Account Proceeds Settlement	(\$2.08)
Net Reliability Unit Commitment Settlement	\$0.00
Ancillary Services Settlement	\$33.80
Reliability Must Run Settlement (incl. RMR for Capacity)	\$0.00
Real-Time Revenue Neutrality Settlement	(\$0.31)
Emergency Energy Settlement	\$0.08
Base Point Deviation Settlement	(\$0.19)
ORDC Settlement	\$0.06
<b>Total</b>	<b>\$9.26</b>
<b>Fee Allocation</b>	
ERCOT Administrative Fee Settlement	\$11.14
<b>Net Allocated to Load</b>	<b>\$20.40</b>

The charge for the net allocation to Load increased from last month and decreased from November 2014.

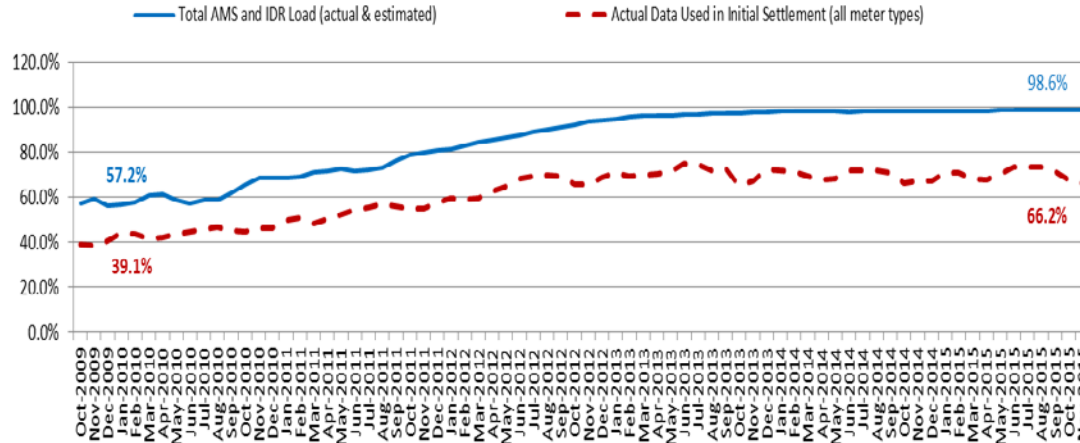
November 2015 was a charge of \$20.40M, compared to:

- A charge of \$16.25M in October 2015
- A charge of \$34.56M in November 2014



# Advanced Meter Settlement Impacts – November 2015

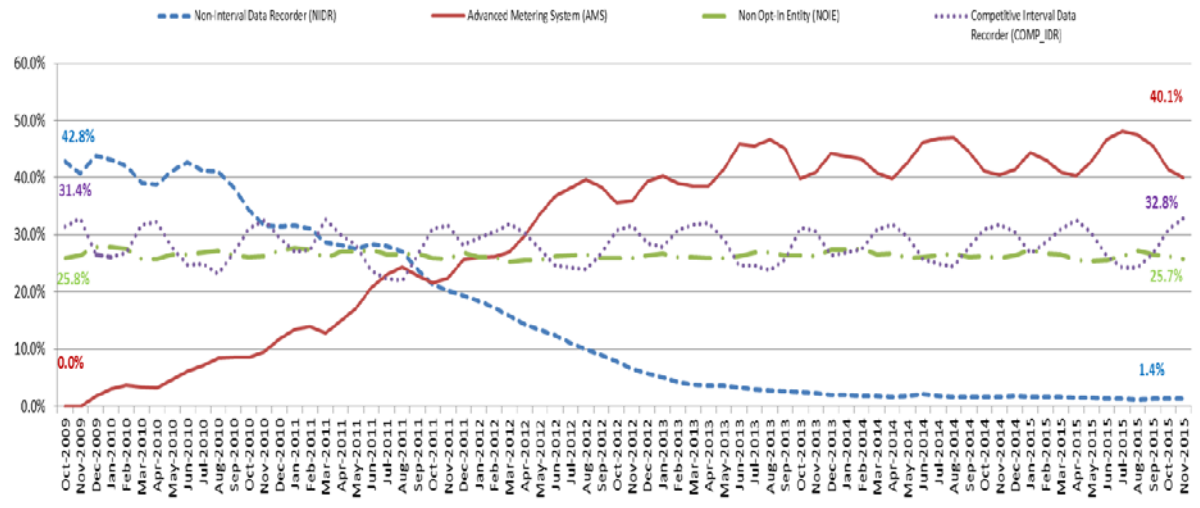
Percent Actual/Percent Interval Data Recorder (IDR)



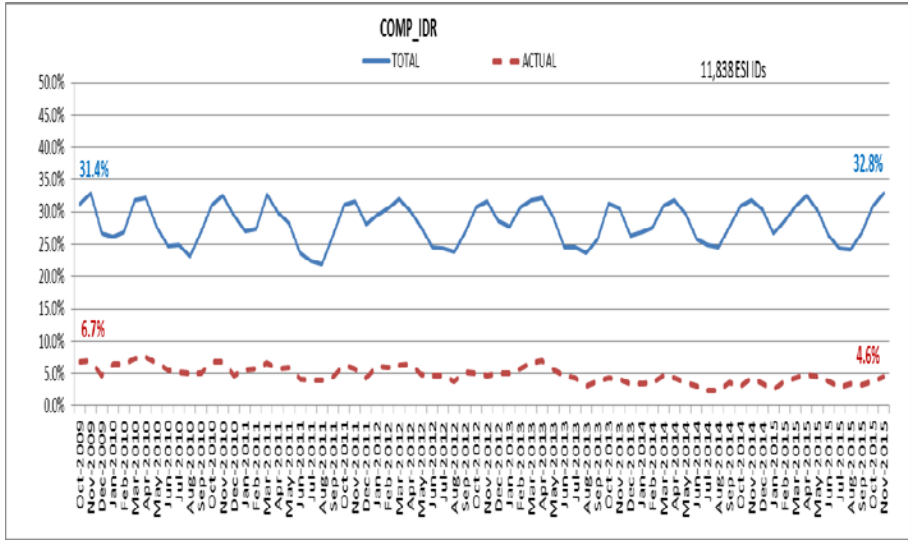
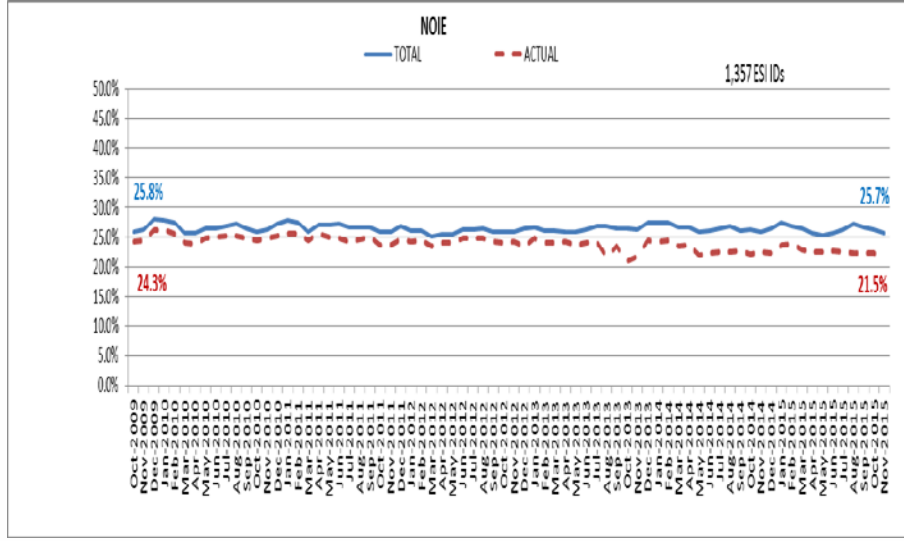
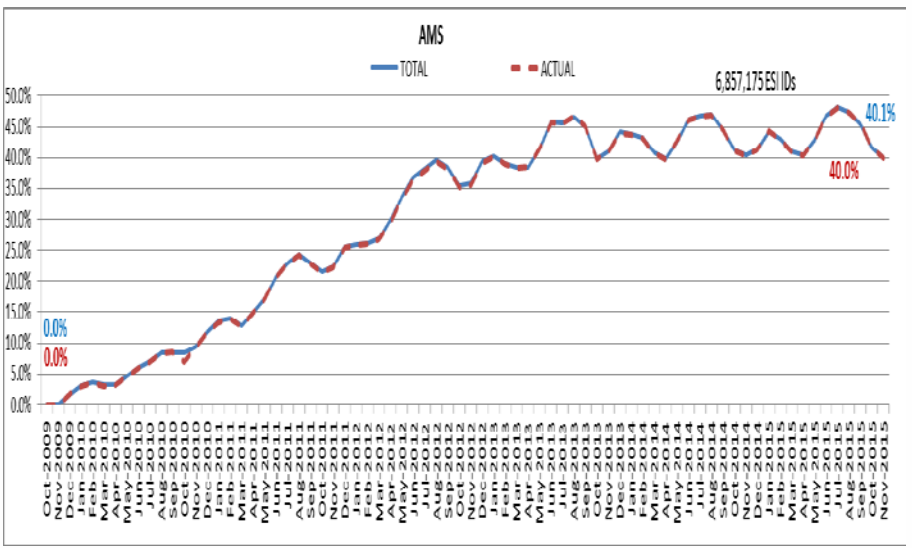
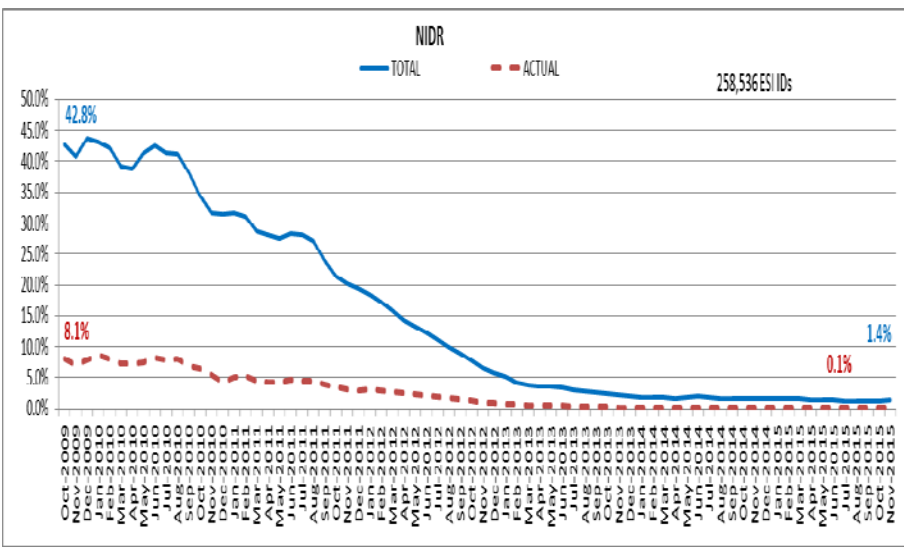
November 2015: At month end, settling 6.8M ESIIDs using Advanced Meter data.

November 2015: 98.6% 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 – November 2015

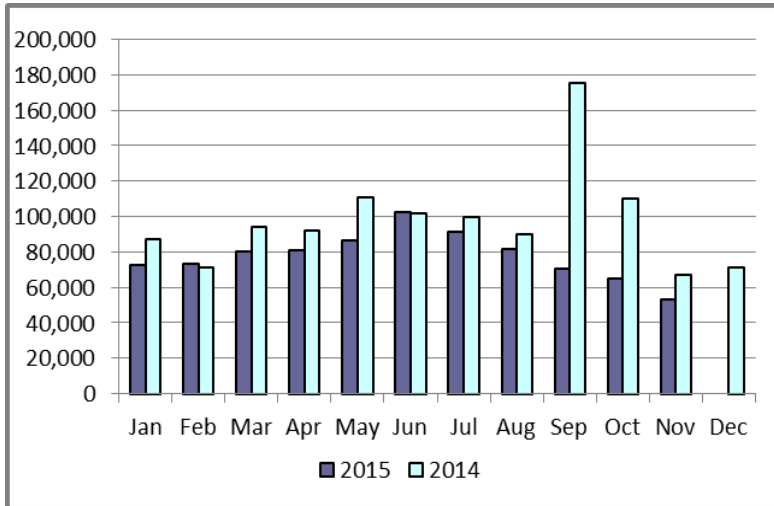


# Retail Transaction Volumes – Summary – November 2015

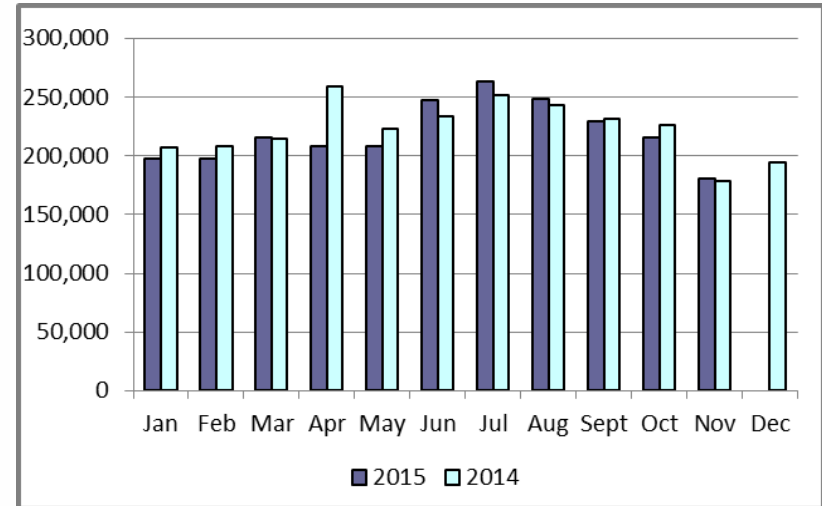
Transaction Type	Year-To-Date		Transactions Received	
	November 2015	November 2014	November 2015	November 2014
Switches	857,811	1,098,474	52,887	67,080
Acquisition	0	0	0	0
Move - Ins	2,412,695	2,477,236	181,098	178,624
Move - Outs	1,240,301	1,235,437	96,214	89,578
Continuous Service Agreements (CSA)	472,085	587,117	34,796	43,550
Mass Transitions	0	5,614	0	0
<b>Total</b>	<b>4,982,892</b>	<b>5,403,878</b>	<b>364,995</b>	<b>378,832</b>

# Retail Transaction Volumes – Summary – November 2015

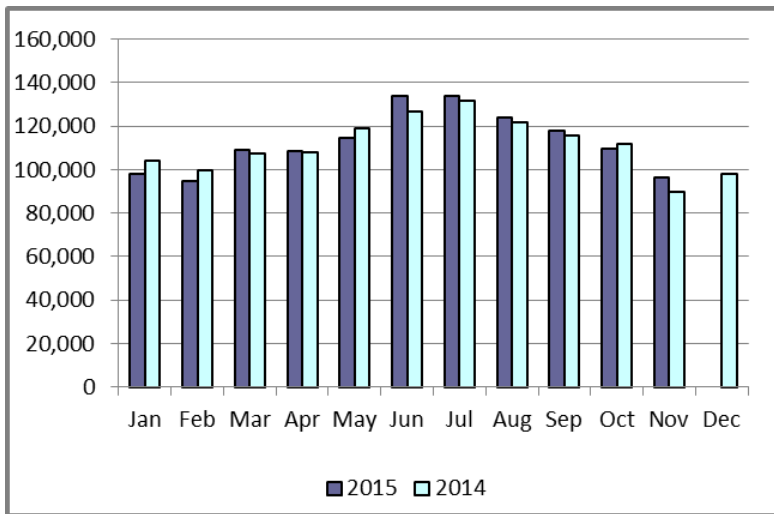
## Switches/Acquisitions



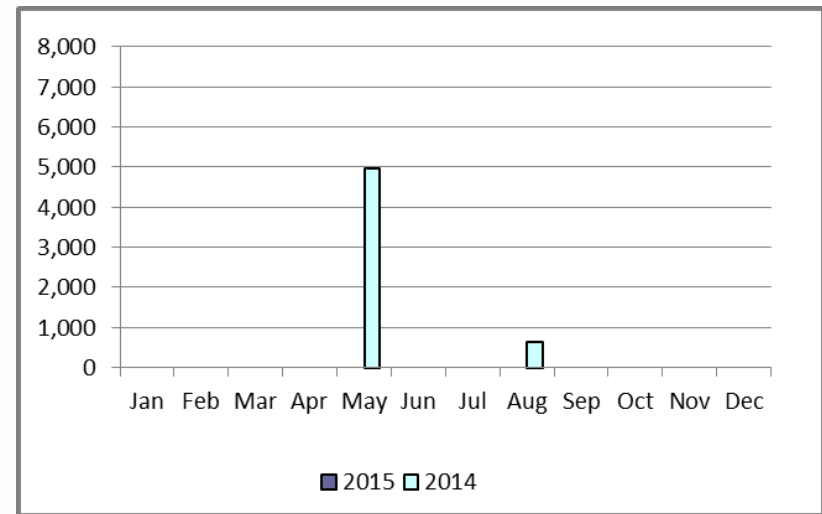
## Move-Ins



## Move-Outs

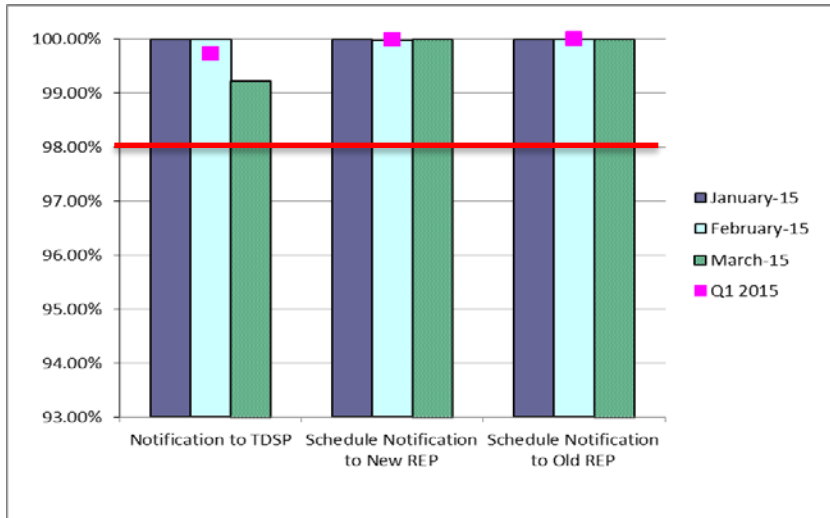


## Mass Transition

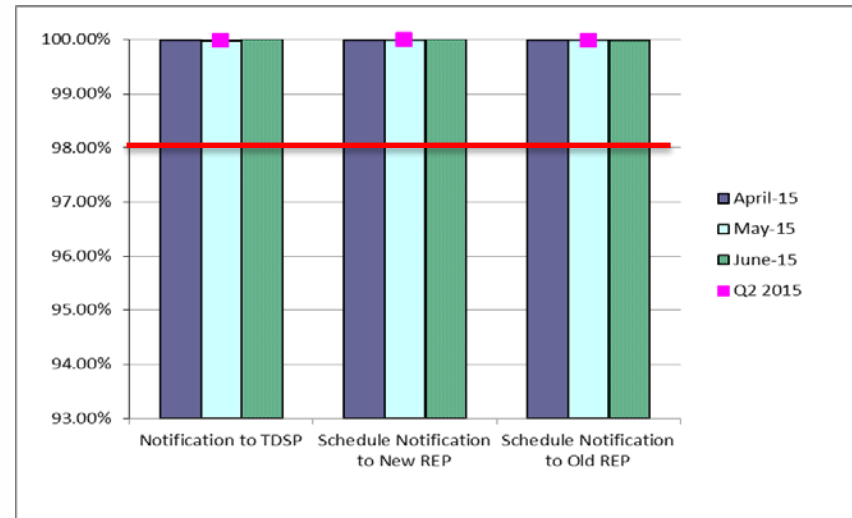


# Retail Performance Measures – Switch – November 2015

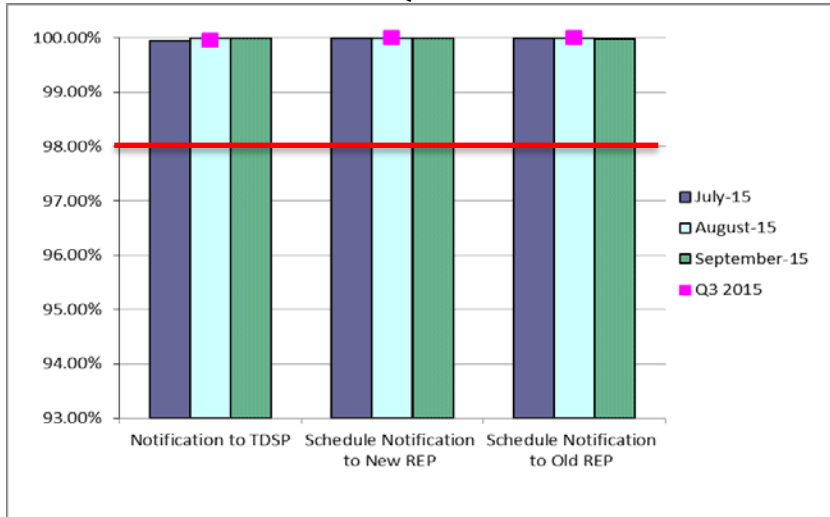
## 1<sup>st</sup> Quarter



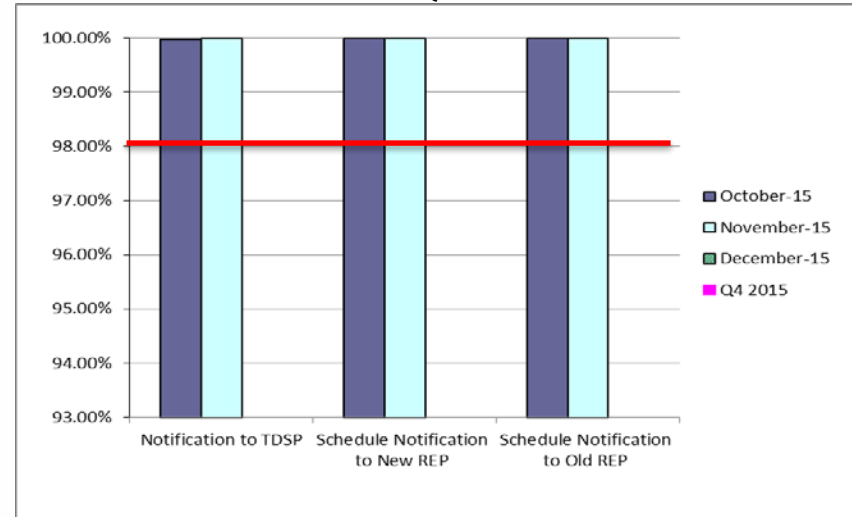
## 2<sup>nd</sup> Quarter



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

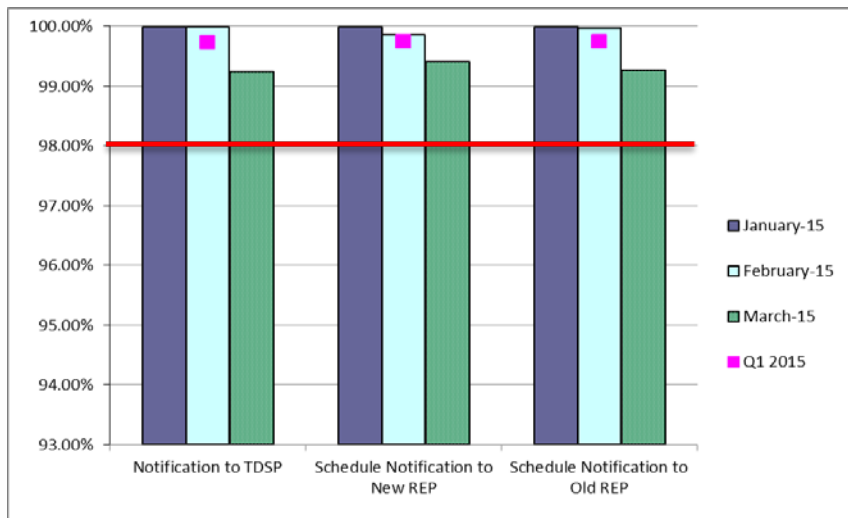


## 4<sup>th</sup> Quarter

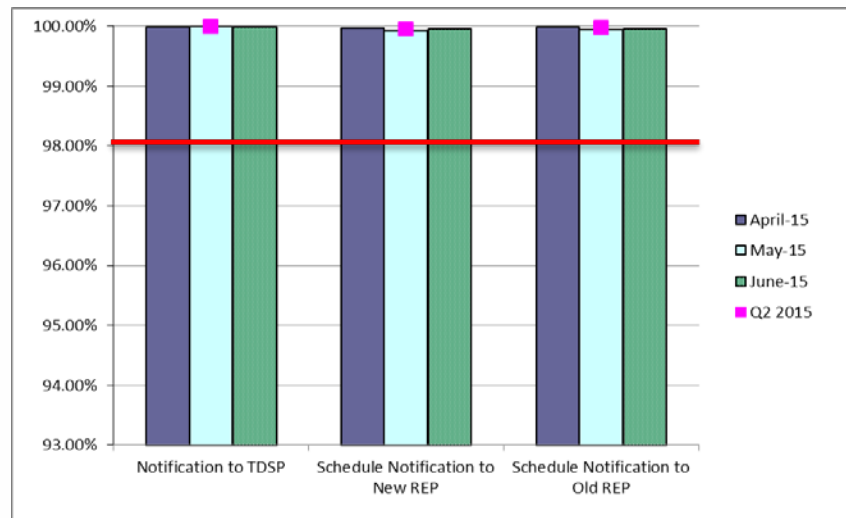


# Retail Performance Measures (Same Day Move-In) – November 2015

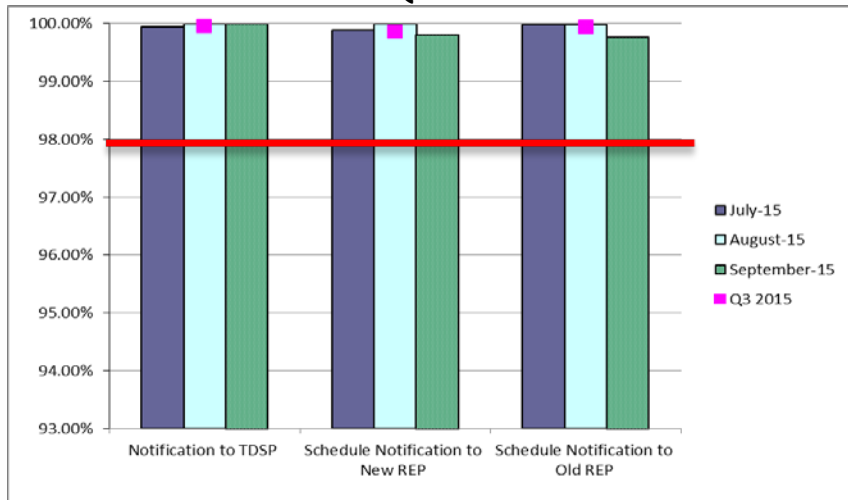
## 1<sup>st</sup> Quarter



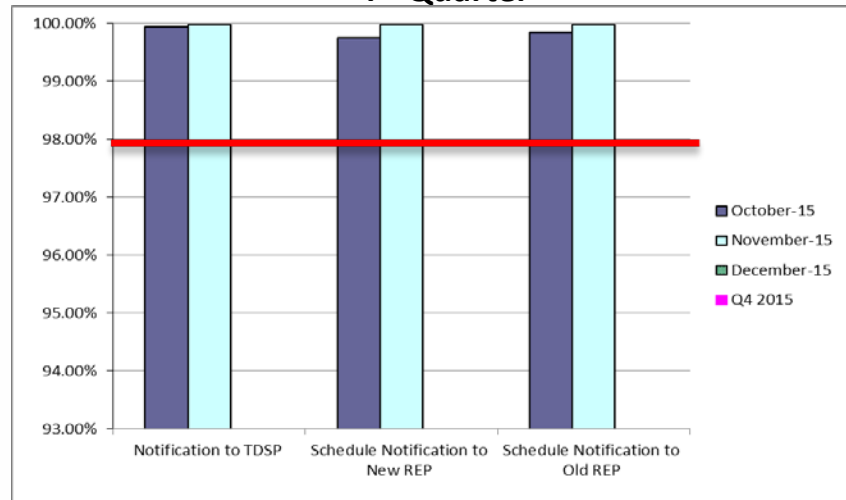
## 2<sup>nd</sup> Quarter



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

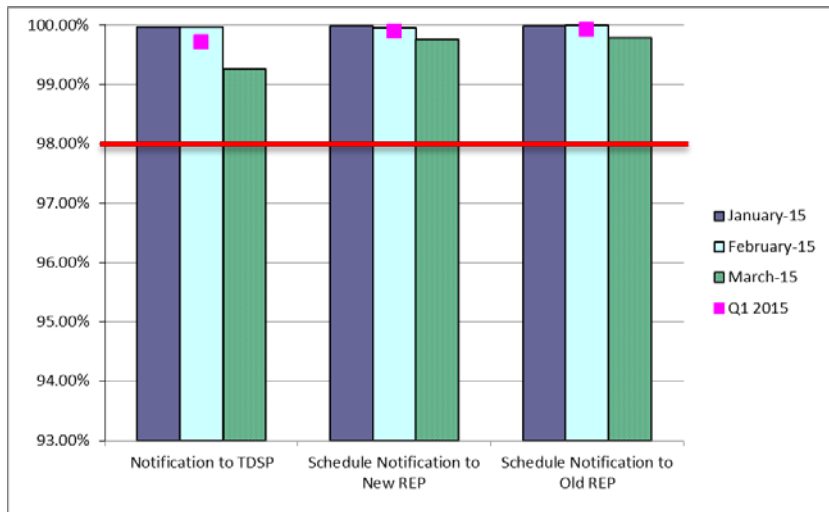


## 4<sup>th</sup> Quarter

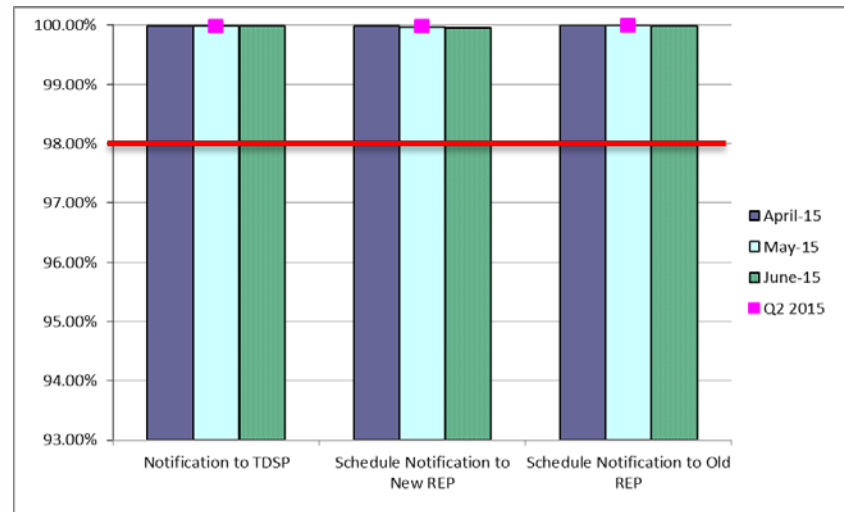


# Retail Performance Measures (Standard Move-In) – November 2015

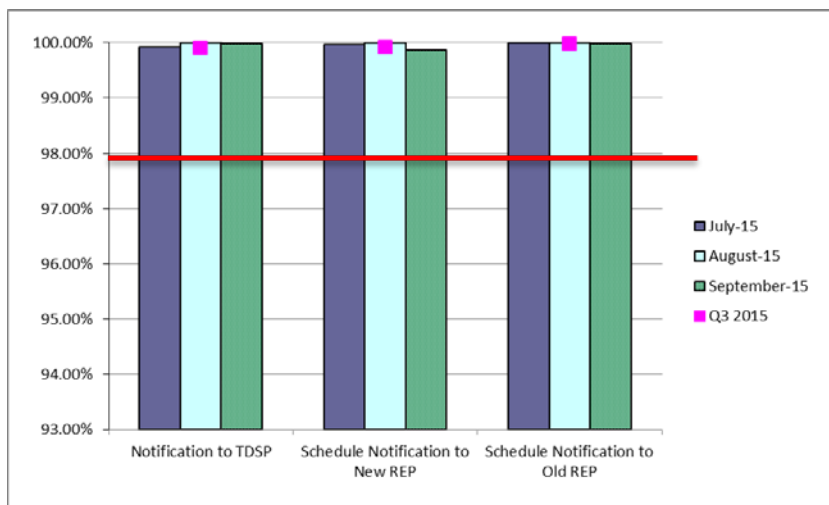
## 1<sup>st</sup> Quarter



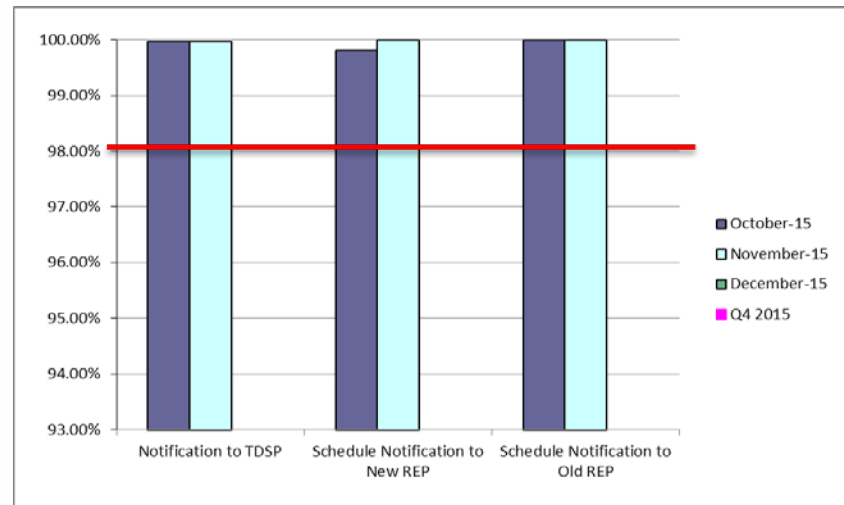
## 2<sup>nd</sup> Quarter



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



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





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# **Projects Report**

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# ERCOT Portfolio Stoplight Report – November 2015

Impact Metric Tolerances	2015 Project Funding	\$ 21,650,000	2015 Portfolio Spending Estimate	
Unfavorable variances are represented as negative numbers within the report. - Green = No more than 4.9% unfavorable variance - Yellow = Unfavorable variance between 4.9% and 9.9% - Red = Unfavorable variance more than 9.9%	Projects In Flight/On Hold (Count = 53)		\$ 23,590,434	Excess spend will be offset by equal reductions in 2016 spending
	Projects Not Yet Started (Count = 3)		\$ 5,000	
	Projects Completed (Count = 44)		\$ 3,935,525	
	Spending Reductions Required to Maintain Capital Budget		\$ (5,880,959)	
	<b>TOTAL</b>		<b>\$ 21,650,000</b>	

Project Number	Projects in Initiation Phase (Count = 12)
Various	2015 CMM NPRRs
Various	NPRR617 and 700 Implementation
NPRR439	Updating a Counter-Party's Available Credit Limit for Current Day DAM
NPRR484	Revisions to Congestion Revenue Rights Credit Calculations and Payments - Phase 1b / 2
NPRR519	Exemption of ERS-Only QSEs from Collateral and Capitalization Requirements
NPRR617	Energy Offer Flexibility
NPRR683	Revision to Available Credit Limit Calculation
NPRR700	Utilizing Actual Fuel Costs in Startup Offer Caps
170-03	ECAP - Enterprise Content Management System (Proof of Concept)
170-04	ECAP - ERCOT Information Governance and Taxonomy
181-01	CRR Framework Upgrade
185-01	Records Management and eDiscovery

Footnotes
1 - One or more phases took longer than expected, resulting in additional funding and/or time required
2 - One or more phases required more labor than expected, resulting in additional funding and/or time required
3 - Project placed on hold
4 - Resource constraints resulted in delay to one or more phases
5 - Project was on an urgent timeline to meet a pre-defined target implementation date. Compressed project planning required budget estimation before full requirements were known. Additional effort needed, resulting in additional funding
NA - Metric not calculated because: - it is reported at the parent project level, or - it is an administrative project

Project Number	Projects in Planning Phase (Count = 13)	Baseline Phase Start	Baseline Phase Finish	Scheduled Go-Live Date	Scheduled Phase Finish	Schedule Impact	Budget Impact
106-01	MP Online Data Entry - Ph 1	10/9/2013	3/5/2014	TBD	10/8/2015	4 -395%	0%
158-01	Move iTron LF Application to High Availability Environment	1/14/2015	6/19/2015	TBD	1/28/2016	4 -142%	0%
DC4	DC4 Program Control	9/9/2015	3/30/2016	TBD	3/30/2016	0%	1%
DC4	DC4 - Compute DB Inf Install and Migration	12/2/2015	2/10/2016	TBD	2/10/2016	0%	0%
DC4	DC4 - Compute DB Inf Install and Migration Stage 1	12/2/2015	2/10/2016	TBD	2/10/2016	0%	NA See DC4 Compute DB
169-01	Short Circuit Ratio Functionality	4/6/2015	9/16/2015	TBD	11/4/2015	1 -30%	30%
172-01	Physical Security Project #2	8/27/2015	6/8/2016	TBD	6/8/2016	0%	1%
173-01	ERCOT Flight Certification Website	7/23/2015	12/11/2015	TBD	2/1/2016	1 -36%	0%
177-01	Cyber Security Project #19	10/19/2015	12/18/2015	TBD	12/10/2015	13%	-2%
179-01	Infoblox Hardware Refresh	10/14/2015	2/3/2016	TBD	2/3/2016	0%	0%
180-01	Mobile Device Management (MDM) – GEMS	11/25/2015	2/2/2016	TBD	1/11/2016	31%	0%
TBD	Enterprise Resource Planning	8/5/2015	9/2/2015	TBD	11/20/2015	1 -282%	0%
NPRR419	Revise Real Time Energy Imbalance and RMR Adjustment Charge	11/18/2015	12/30/2015	TBD	12/30/2015	0%	0%



# ERCOT Portfolio Stoplight Report – November 2015

Project Number	Projects in Execution Phase (Count = 20)	Baseline Phase Start	Baseline Go-Live Target	Scheduled Go-Live Date	Scheduled Phase Finish	Schedule Impact		Budget Impact	
052-01	EMS Upgrade	9/24/2014	5/25/2016	5/26/2016	11/1/2016		0%		7%
065-01	NMMS Upgrade	12/17/2014	5/27/2016	9/16/2016	10/31/2016	1	-21%	1	-5%
116-01	Collage Replacement	2/6/2014	9/22/2014	4/7/2016	4/7/2016	4	-246%	2	-114%
120-01	IT Production Hardening	5/21/2015	4/1/2016	3/31/2016	4/25/2016		0%		23%
143-01	OSI Pi Visualization Enhancements	1/16/2015	6/19/2015	11/15/2015	11/30/2015	1	-96%		0%
144-01	OC-48 Replacement with DWDM	2/4/2015	12/22/2015	1/15/2016	3/2/2016	1	-7%		-3%
161-01	NPRRs 588 and 615	9/16/2015	2/19/2016	2/4/2016	3/30/2016		9%		-1%
165-00	Capital Efficiencies and Enhancements - 2015	1/1/2015	12/31/2015	12/31/2015	12/31/2015		0%		46%
168-01	Configuration Management System Requirements for CIP v5 Readiness	7/6/2015	12/16/2015	12/16/2015	12/30/2015		0%		6%
170-01	Enterprise Content Alignment Program	8/26/2015	1/5/2016	1/5/2016	2/29/2016		0%		88%
171-01	CIP v5 Readiness Project	7/22/2015	4/29/2016	3/31/2016	3/31/2016		10%		0%
174-01	2015 Outage Scheduler Enhancements	12/2/2015	9/14/2016	9/14/2016	10/14/2016		0%		10%
NPRR219	Resolution of Alignment Items A33, A92, A106, and A150 - TSPs Must Submit Outages for Resource Owned Equipment and Clarification of Changes in Status of Transmission Element Postings	12/2/2015	9/14/2016	9/14/2016	10/14/2016		0%	NA	See #174-01
NPRR515	Day-Ahead Market Self-Commitment of Generation Resources	10/5/2015	3/31/2016	3/8/2016	3/8/2016		12%		6%
NPRR553	Monthly BLT Payment and Charge for Presidio Exception	4/9/2015	2/19/2016	2/19/2016	2/19/2016		0%	NA	See #165-00
NPRR588	Clarifications for PV Generation Resources	9/16/2015	2/19/2016	2/10/2016	3/30/2016		5%	NA	See #161-01
NPRR615	PVGR Forecasting	9/16/2015	2/19/2016	2/10/2016	3/30/2016		5%	NA	See #161-01
NPRR680	Allow QSEs to Self-Arrange AS Quantities Greater Than Their AS Obligation	10/28/2015	12/11/2015	12/11/2015	12/18/2015		0%		15%
NPRR686	Changing the IRR Forecast from Next 48 Hours to Next 168 Hours	9/16/2015	2/19/2016	2/19/2016	3/30/2016		0%	NA	
SCR783	Outage Scheduler Enhancements – Group 2, Usability and Filtering Enhancements	12/2/2015	9/14/2016	9/14/2016	10/14/2016		0%	NA	See #174-01
Project Number	Projects in Stabilization (Count = 2)	Baseline Execution Phase Start	Baseline Go-Live Target	Actual Go-Live Date	Scheduled Execution Phase Finish	Schedule Impact		Budget Impact	
134-01	Privileged Account Management	4/1/2015	9/30/2015	9/30/2015	10/30/2015		0%		16%
163-01	Cyber Security Project #10	7/1/2015	9/15/2015	9/22/2015	12/16/2015	1	-9%		7%



# ERCOT Portfolio Stoplight Report – November 2015

Project Number	Projects On Hold (Count = 6)	Forecast Start Date	Baseline Phase Finish	Scheduled Go-Live Date	Scheduled Phase Finish	Schedule Impact		Budget Impact	
SCR777	Bilateral CRR Interface Enhancement	8/20/2014	11/28/2014	TBD	TBD	3		3	
NPRR327	State Estimator Data Redaction Methodology	12/5/2012	2/12/2013	TBD	TBD	3		3	
NPRR573	Alignment of PRC Calculation	TBD	TBD	TBD	TBD	3		3	
129-01	Access and Roles Management	7/1/2014	10/1/2014	TBD	TBD	3		3	
141-01	Production Virtualization	11/6/2014	11/18/2015	TBD	TBD	3		3	
166-01	Jboss Application Monitoring & Management (JAMM)	TBD	TBD	TBD	TBD	3		3	
Project Number	Projects Completed (Count =44)	Baseline Execution Phase Start	Baseline Go-Live Target	Actual Go-Live Date	Actual Execution Phase Finish	Schedule Status		Total Variance	
NPRR467	Balancing Account Resettlement Due to DAM Resettlement	7/1/2014	12/6/2014	12/6/2014	6/12/2015		0%	NA	See #10052
NPRR500	Posting of Generation that is Off but Available	1/7/2015	2/6/2015	2/6/2015	3/27/2015		0%		48%
NPRR543	Message for Confirmed E-Tags	3/18/2015	6/23/2015	6/25/2015	7/9/2015		-2%		19%
NPRR556	Resource Adequacy During Transmission Equipment Outage	9/21/2015	10/23/2015	10/23/2015	12/10/2015		0%		17%
NPRR559	Revisions to MCE Calculation	1/29/2015	6/13/2015	6/13/2015	7/10/2015		0%	NA	See #154-01
NPRR580	Establishment of a Rolling CRR Balancing Account Fund	7/1/2014	12/6/2014	12/6/2014	6/12/2015		0%	NA	See #10052
NPRR586	Align Credit Lock for CRR Auctions with Transaction Submission Deadline	7/2/2014	9/26/2014	9/22/2014	10/28/2014		4%	2	-18%
NPRR589	Ancillary Service Offers in the Supplemental Ancillary Services Market	3/1/2015	9/25/2015	9/30/2015	9/30/2015		-2%		
NPRR595	RRS Load Resource Treatment in ORDC	8/5/2015	10/23/2015	10/22/2015	11/23/2015		1%	NA	See NPRR698
NPRR598	Clarify Inputs to PRC and ORDC	1/15/2015	6/28/2015	7/1/2015	7/31/2015		-1%	NA	See #149-01
NPRR597	Utilize Initial Estimated Liability (IEL) Only During Initial Market Activity	1/29/2015	6/13/2015	6/13/2015	7/10/2015		0%	NA	See #154-01
NPRR601	Inclusion of Incremental Exposure in Mass Transitions to Counter-Parties that are Registered as QSEs and LSEs and Provide POLR Service	1/29/2015	6/13/2015	6/13/2015	7/10/2015		0%	NA	See #154-01
NPRR626	Reliability Deployment Price Adder	1/15/2015	6/28/2015	6/26/2015	9/7/2015		1%	NA	See #149-01
NPRR639	Correction to Minimum Current Exposure	1/29/2015	6/13/2015	6/13/2015	7/10/2015		0%	NA	See #154-01
NPRR645	Real-Time On-Line Capacity Revisions	1/15/2015	6/28/2015	6/26/2015	9/7/2015		1%	NA	See #149-01
NPRR665	As-Built Clarification of Reliability Deployment Price Adder	1/15/2015	6/28/2015	6/26/2015	9/7/2015		1%	NA	See #149-01
NPRR698	Clarifications to NPRR595, RRS Load Resource Treatment In ORDC	8/5/2015	10/23/2015	10/22/2015	11/23/2015		1%		-3%
NPRR706	Restore the Ability to Use Physical Responsive Reserve Capability as an Indicator of Available Frequency-Responsive Capacity	8/5/2015	10/23/2015	10/22/2015	11/23/2015		1%		See NPRR698
NPRR710	Removal of ORDC Phase 2 Language and Modification to HASL Calculation	8/5/2015	10/23/2015	10/22/2015	11/23/2015		1%		See NPRR698
OBD	Setting the Shadow Price Caps and Power Balance Penalties in Security-Constrained Economic Dispatch	1/15/2015	6/28/2015	6/26/2015	9/7/2015		1%	NA	See #149-01



# ERCOT Portfolio Stoplight Report – November 2015

Project Number	Projects Completed (continued) (Count =44)	Baseline Execution Phase Start	Baseline Go-Live Target	Actual Go-Live Date	Actual Execution Phase Finish	Schedule Status	Total Variance
SCR771	ERCOT System Change Allowing Independent Master QSE to Represent Split Generation Resources	4/23/2015	9/9/2015	9/9/2015	9/9/2015	0%	NA See #165-00
SCR772	New Extract for Five Minute Interval Settlement Data	11/5/2014	2/13/2015	2/12/2015	3/30/2015	1%	19%
SCR775	Posting Results of Real-Time Data in a Display Format	3/31/2015	6/22/2015	6/22/2015	7/20/2015	0%	40%
SCR778	Credit Exposure Calculations for NOIE Options Linked to RTM PTP Obligations	1/29/2015	3/28/2015	3/28/2015	7/10/2015	0%	NA See #154-01
SCR779	Increase to the CRR Auction Transaction Limit	9/29/2014	6/28/2015	5/27/2015	6/24/2015	11%	-2%
10052_01	Settlement System Upgrade	1/25/2012	12/23/2014	12/6/2014	6/12/2015	1%	-1%
057-01	EPS Metering DB Redesign	4/17/2013	9/6/2013	12/11/2014	1/14/2015	2	-324% 2 -216%
083-01	Centralized Application Log Management	8/28/2013	5/7/2014	3/27/2014	2/4/2015	16%	9%
089-01	Information Technology Change Management	10/29/2014	5/1/2015	5/27/2015	6/15/2015	2	-14% 2 -38%
097-01	ABB MMS OS Technology Refresh	8/15/2014	3/26/2015	3/26/2015	5/8/2015	0%	-1%
104-01	Disaster Recovery: S&B, RTL, MDT	10/9/2014	1/18/2015	1/18/2015	1/28/2015	0%	2%
115-01	Cyber Security Project #14	6/30/2014	1/15/2015	1/15/2015	3/6/2015	0%	13%
122-01	Infoblox DNS/DHCP	5/21/2014	11/5/2014	11/20/2014	11/8/2015	1	-8% 4%
127-01	SQL Server 2012 Upgrade / Cluster Consolidation	12/18/2014	7/19/2015	7/19/2015	9/9/2015	0%	14%
130-01	Electronic Crisis Communications Enhancements	6/19/2014	12/12/2014	2/16/2015	6/12/2015	1	-37% 2 -5%
137-01	EIS Reporting and Control Systems Upgrade	8/13/2014	1/15/2015	1/13/2015	2/25/2015	1%	9%
142-01	Implementation of NERC BAL-TRE-001 Regional Standard	1/14/2015	2/16/2015	2/6/2015	3/6/2015	30%	46%
149-01	Market System Enhancements 2015	1/15/2015	6/28/2015	6/26/2015	9/7/2015	1%	15%
150-01	Backup Resiliency	12/17/2014	2/6/2015	2/6/2015	3/2/2015	0%	-3%
153-01	Infrastructure Performance Management	12/22/2014	1/22/2015	2/19/2015	3/2/2015	1	-90% 0%
154-01	2014 CMM NPRRs and SCRs	1/29/2015	6/13/2015	6/13/2015	7/10/2015	0%	1 -5%
155-01	Replace N2N System	2/5/2015	5/14/2015	10/8/2015	11/16/2015	2	-150% 2 -22%
156-01	Symposium Call Center Replacement	2/5/2015	5/19/2015	8/21/2015	10/14/2015	2	-91% 2 -20%
164-01	Browser Compatibility Assessment	2/25/2015	9/30/2015	TBD	10/2/2015	0%	19%

Project Number	2015 Projects Not Yet Started (Count = 3)	Forecast Start Date
TBD	CREZ Voltage Control and Coordination - Phase 2	Dec-2015
NPRR620	Collateral Requirements for Counter-Parties with No Load or Generation	Dec-2015
NPRR662	Proxy Energy Offer Curves	Dec-2015

