

# ERCOT Monthly Operational Overview (August 2015)

ERCOT Public September 15, 2015

# **Grid Planning & Operations**

#### **Summary – August 2015**

#### **Operations**

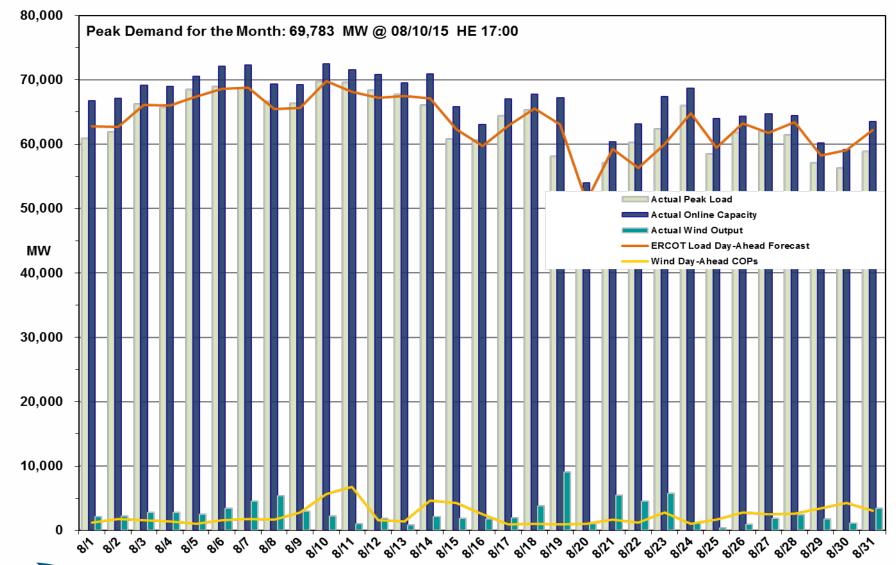
- The peak demand of 69,783 MW on August 10th was less than the mid-term forecast peak of 69,813 MW of the same operating period. In addition, it was greater than the August 2014 actual peak demand of 66,725 MW. The instantaneous peak load on August 10th was 69,858 MW.
- Day-ahead load forecast error for August was 2.91%
- ERCOT issued twelve notifications
  - Five advisories due to Physical Responsive Capability being less than 3,000 MW
  - Four OCNs due to a projected reserve capacity shortage
  - One advisory due to extreme hot weather
  - One advisory due to the Voltage Security Assessment Tool being unavailable
  - One watch due to Physical Responsive Capability being less than 2,500 MW

#### **Planning Activities**

- 269 active generation interconnection requests totaling 63,395 MW, including 25,271 MW of wind generation as of August 31, 2015. Two fewer requests and a decrease of 544 MW from July 31, 2015.
- 13,574 MW wind capacity in commercial operations on August 31, 2015.

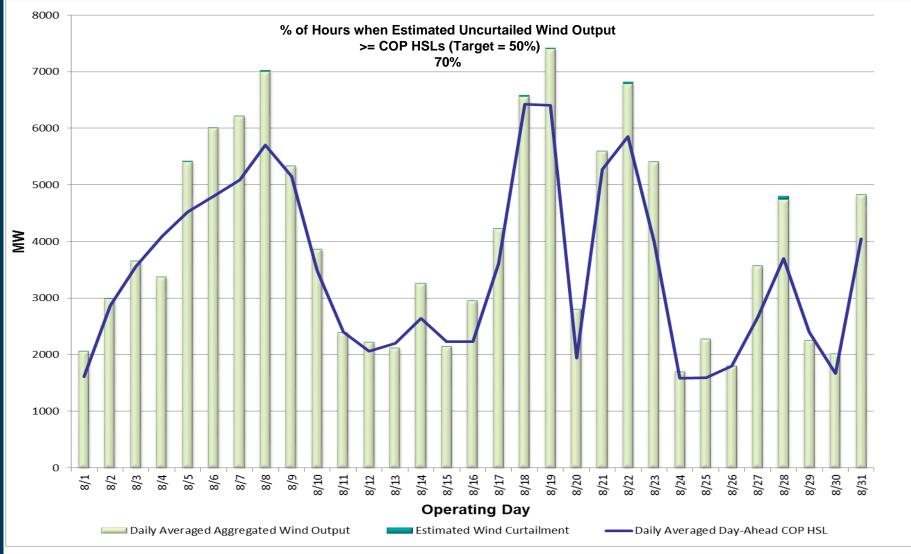


# Daily Peak Demand: Hourly Average Actual vs. Forecast, Wind Day-Ahead COPs & On-line Capacity at Peak – August 2015





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

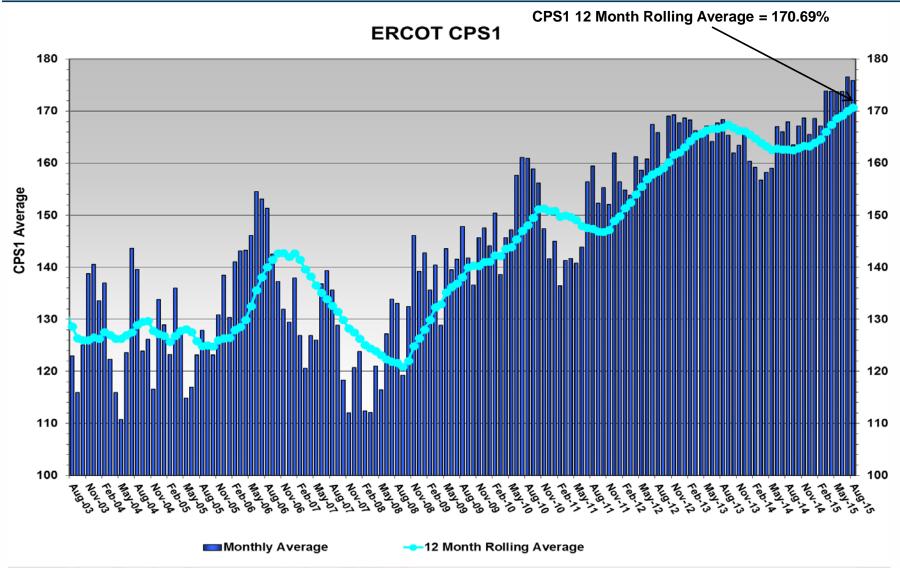




Note: QSEs must use the AWST 50% probability of exceedance forecast as the HSL in their COPs

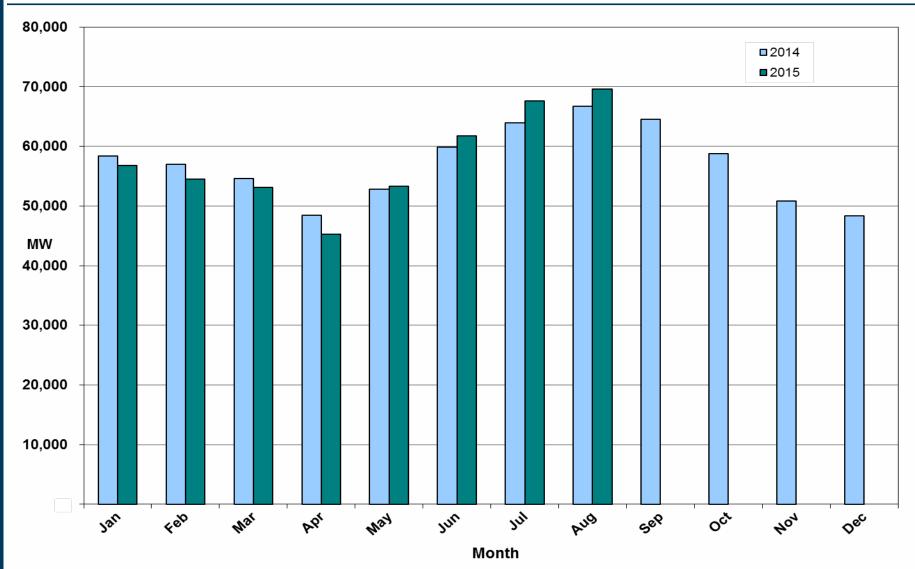
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#### **ERCOT's CPS1 Monthly Performance – August 2015**



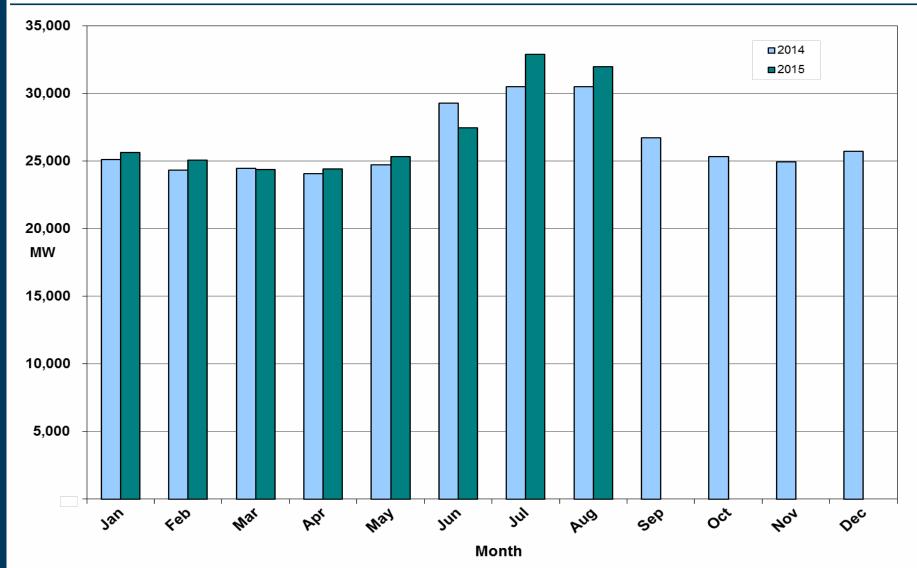


#### Monthly Peak Actual Demand – August 2015





### **Monthly Minimum Actual Demand – August 2015**





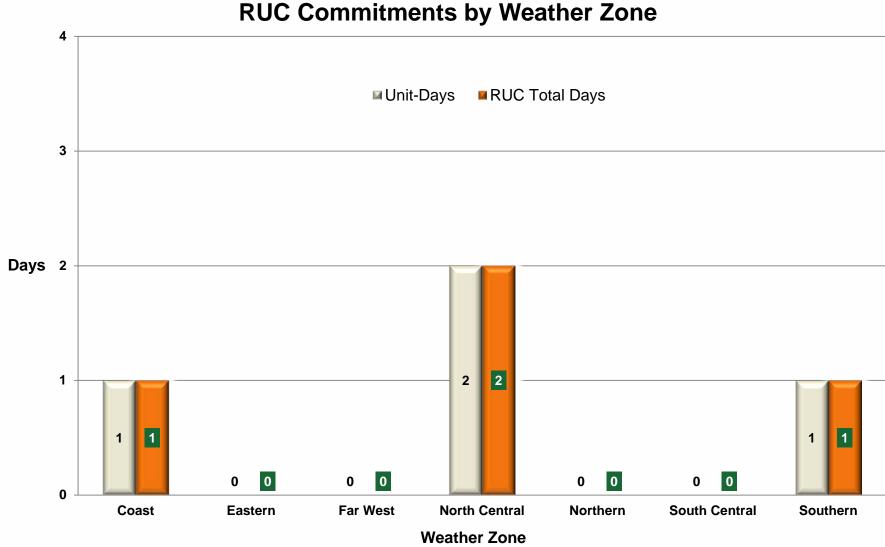
#### **Day-Ahead Load Forecast Performance – August 2015**

# 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		t 2015 PE
Average Annual MAPE	3.02	2.86	2.83	2.99	2.9	91
Lowest Monthly MAPE	2.51	2.07	2.15	1.89	Lowest Daily MAPE	0.50 Aug – 4
Highest Monthly MAPE	3.49	3.50	3.70	3.81	Highest Daily MAPE	<b>11.29</b> Aug – 20



#### Reliability Unit Commitment (RUC) Capacity by Weather Zone – Aug. 2015





#### **Generic Transmission Constraints (GTCs) – August 2015**

GTCs	Aug 14  Days  GTCs	Jun 15  Days  GTCs	Jul 15 Days GTCs	Aug 15  Days  GTCs	Last 12 Months Total Days (Sep 14 – Aug 15)
North – Houston	0	0	1	0	3
Valley Import	0	0	0	0	4
SOP110	0	0	0	0	1
Zorillo - Ajo	-	7	13	11	72
Panhandle	-	-	0	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.

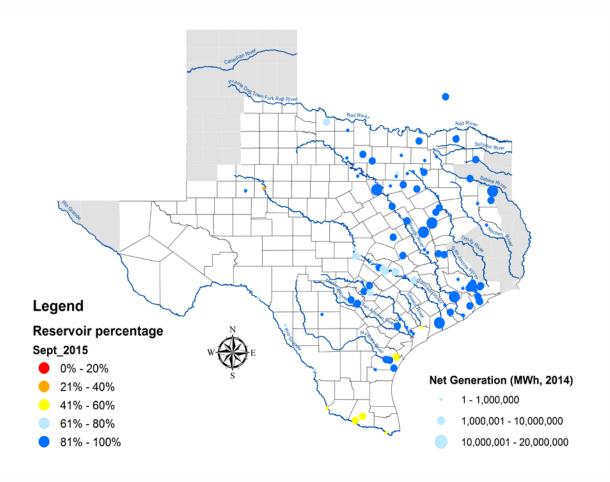


#### **Advisories and Watches – August 2015**

- Five advisories due to Physical Responsive Capability being less than 3,000 MW
  - Issued on 8/5, 8/9, 8/12, 8/13, 8/24
- Four OCNs due to a projected reserve capacity shortage
  - Issued on 8/10, 8/12, 8/13, 8/14
- One advisory due to extreme hot weather
  - Issued on 8/6
- One advisory due to the Voltage Security Assessment Tool being unavailable
  - Issued on 8/7
- One watch due to Physical Responsive Capability being below 2,500 MW
  - Issued on 8/13



#### Lake Levels Update – September 1, 2015



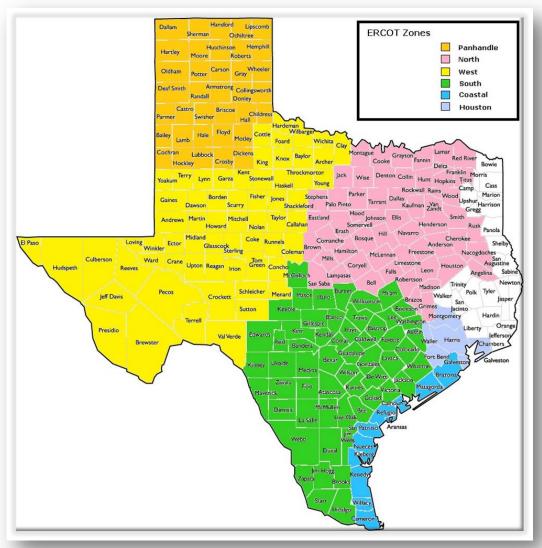


#### Planning Summary – August 2015

- ERCOT is currently tracking 269 active generation interconnection requests totaling 63,395 MW. This includes 25,271 MW of wind generation.
- ERCOT is currently reviewing proposed transmission improvements with a total cost of \$964.9 Million.
- Transmission Projects endorsed in 2015 total \$319.8 Million.
- All projects (in engineering, routing, licensing, and construction) total approximately \$6.66 Billion.
- Transmission Projects energized in 2015 total about \$429.7 Million.

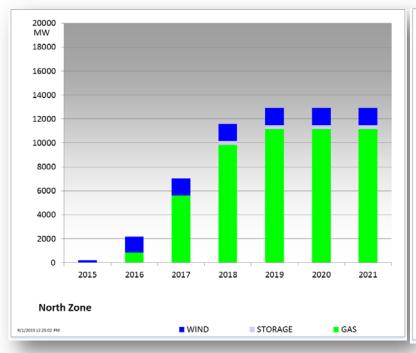


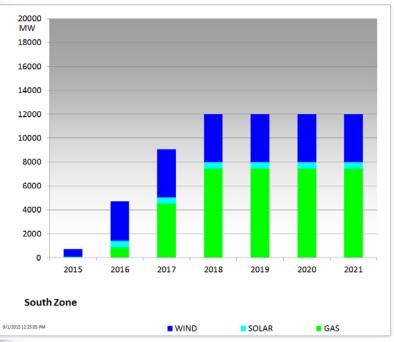
#### **Mapping of Counties to ERCOT Zones – August 2015**



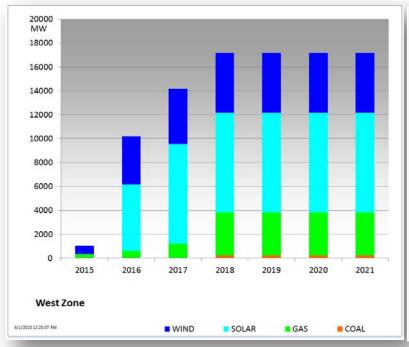


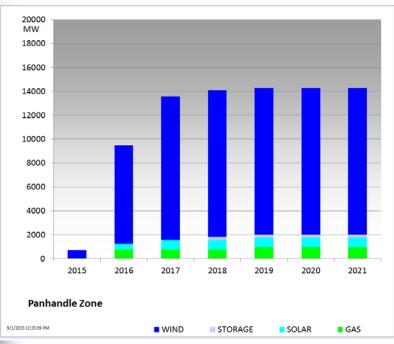
# **Cumulative MW Capacity of Interconnection Requests** by Zone – **August 2015**



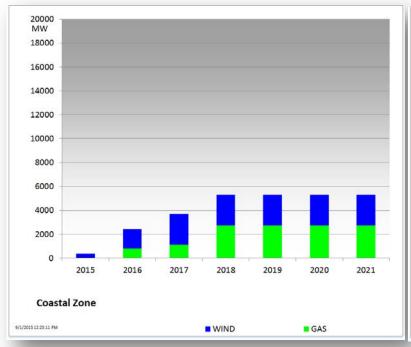


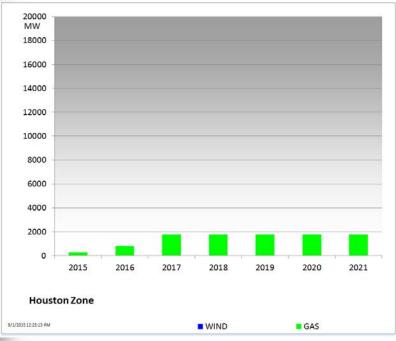
# **Cumulative MW Capacity of Interconnection Requests** by Zone – **August 2015**



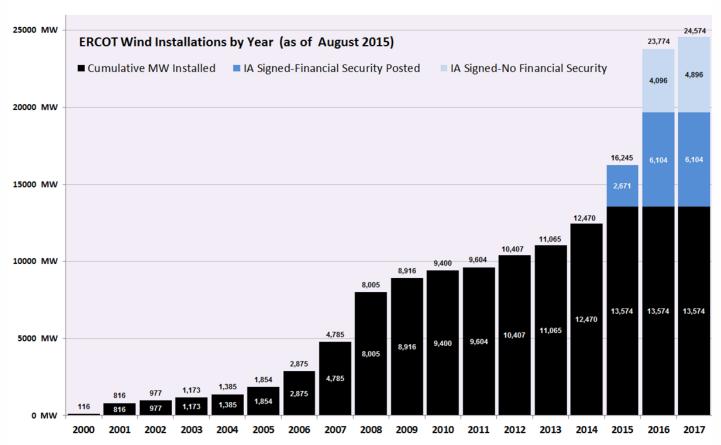


# **Cumulative MW Capacity of Interconnection Requests** by Zone – **August 2015**





#### Wind Generation – August 2015

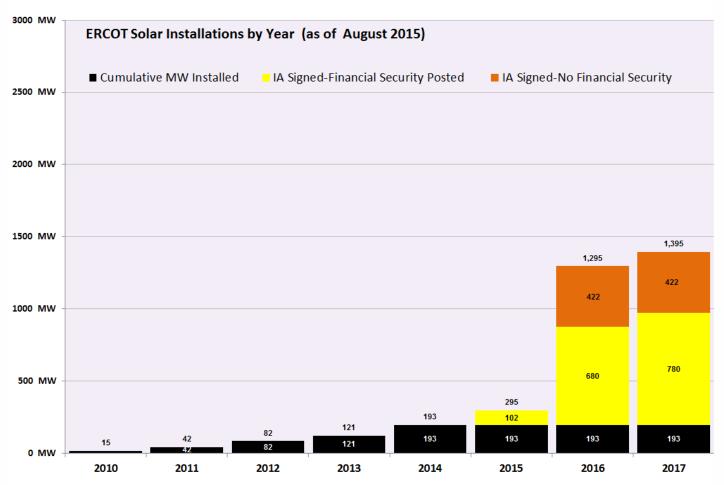


The data presented here is based upon the latest registration data provided to ERCOT by the resource owners and can change without notice. Any capacity changes will be reflected in current and subsequent years' totals. Scheduling delays will also be reflected in the planned projects as that information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



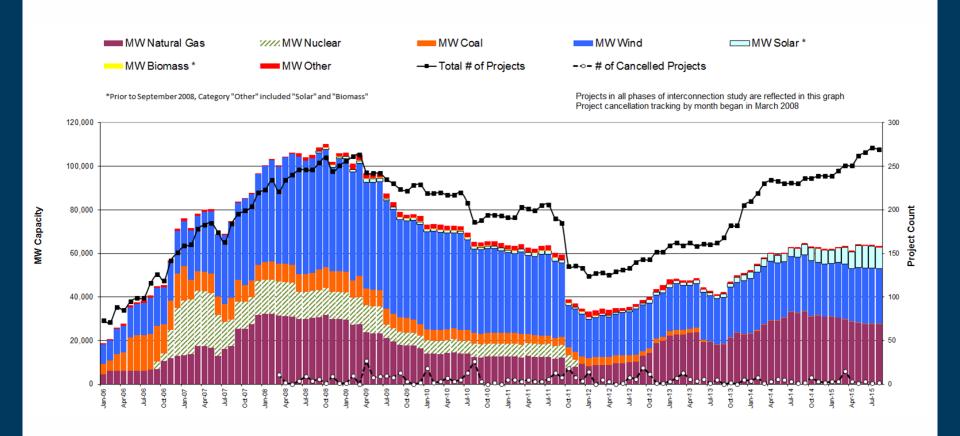
#### **Solar Generation – August 2015**



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.

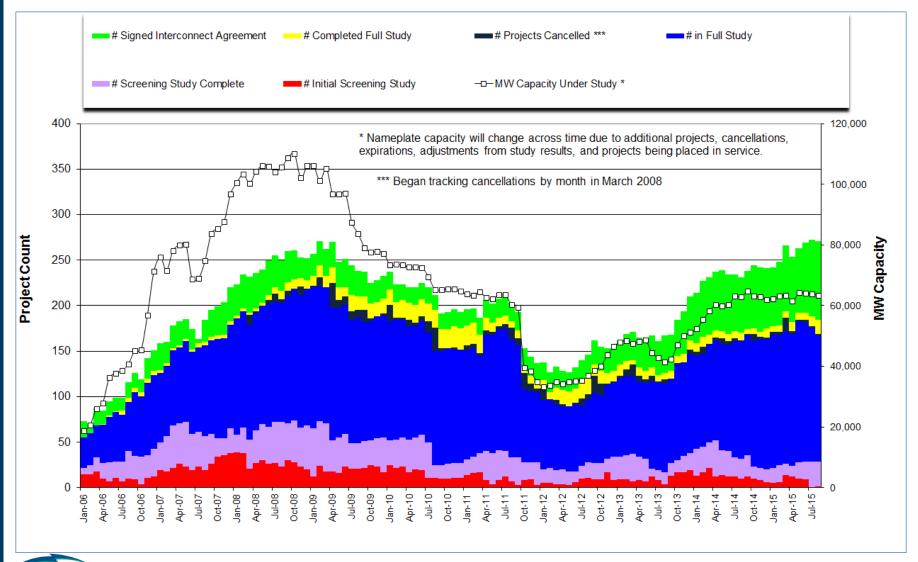


#### **Generation Interconnection Activity by Fuel – August 2015**



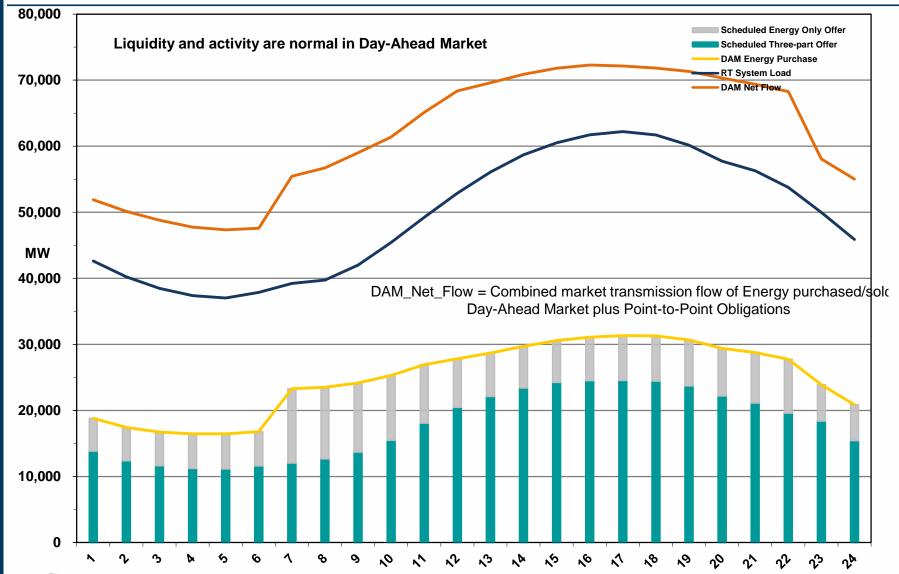


#### **Generation Interconnection Activity by Project Phase – August 2015**



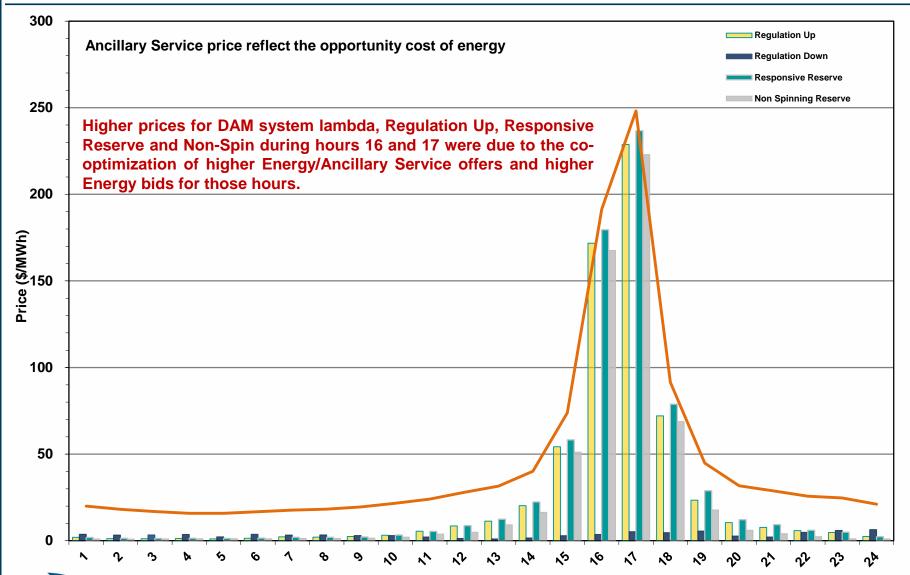
# **Market Operations**

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



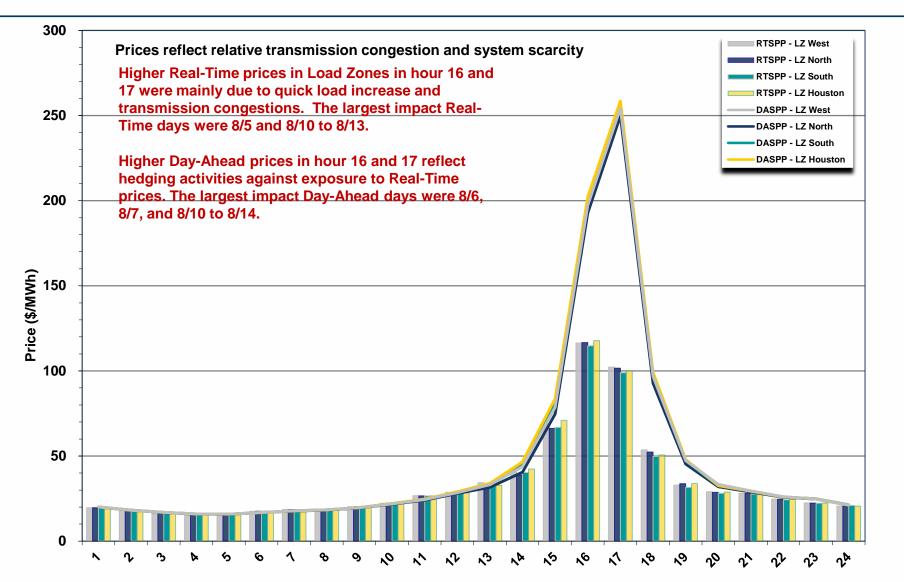


#### Day-Ahead Electricity And Ancillary Service Hourly Average Prices – Aug. 2015



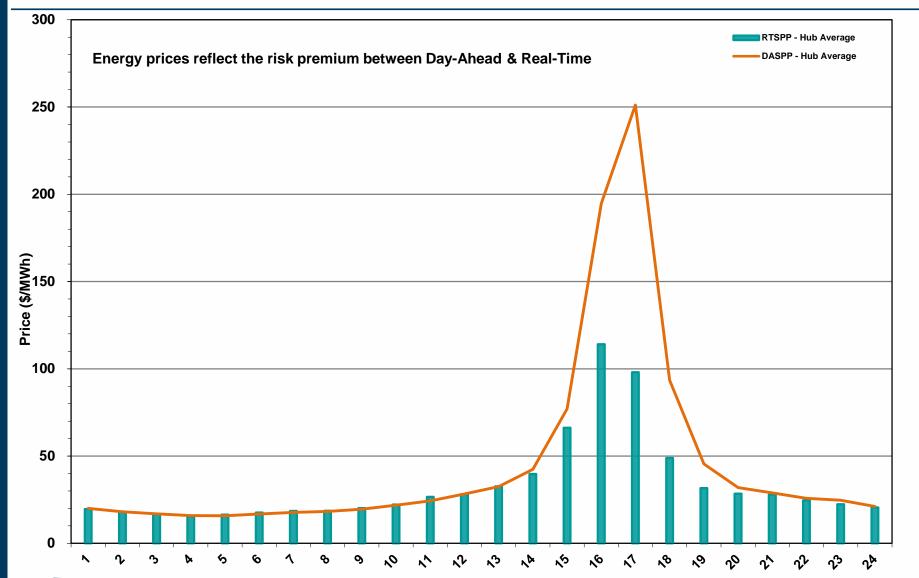


#### Day-Ahead Vs Real-Time Load Zone SPP (Hourly Average) – August 2015



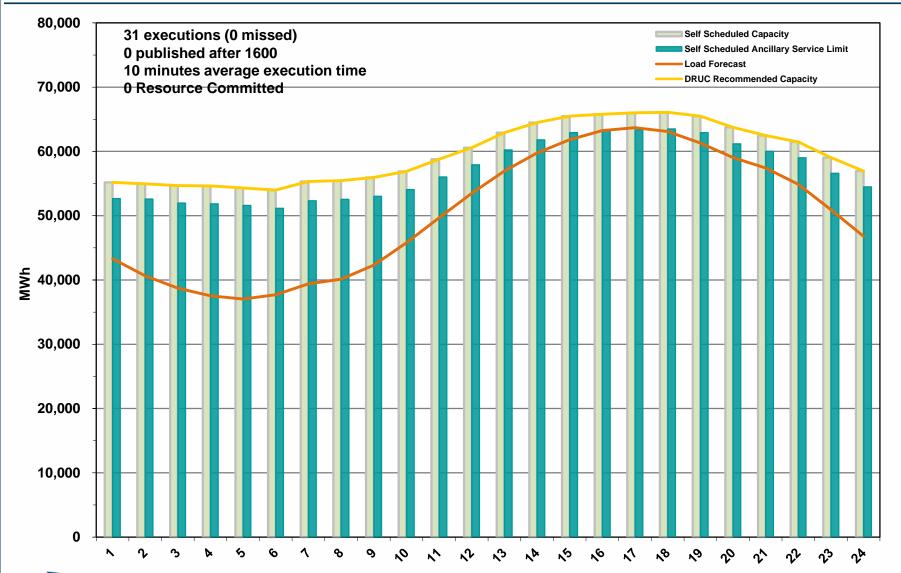


#### Day-Ahead Vs Real-Time Hub Average SPP (Hourly Average) – August 2015



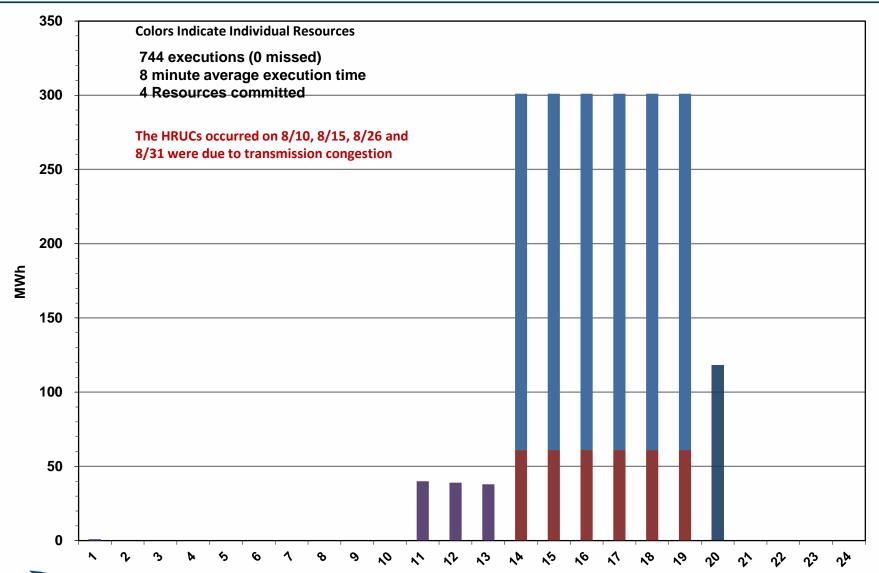


#### **DRUC Monthly Summary (Hourly Average) – August 2015**





# **HRUC Monthly Summary – August 2015**



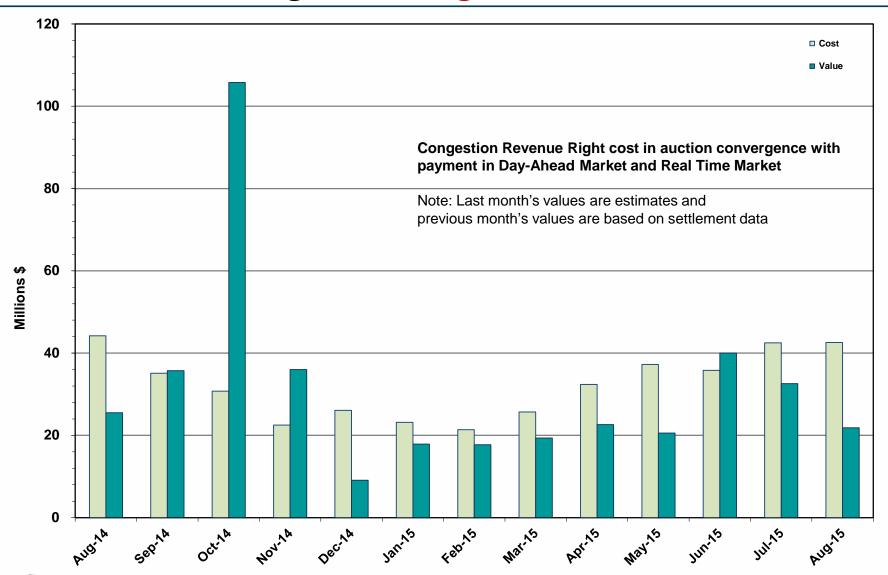


### Non-Spinning Reserve Service Deployment – August 2015

Deployment Start Time	Deployment End Time	Deployment Duration (Hours)	Max Deployment (MW)	Reason
8/8/2015 15:14	8/8/2015 18:50	3.59	74	Local Congestion
8/12/2015 14:40	8/12/2015 16:10	1.50	74	Low Available Capacity
8/13/2015 15:06	8/13/2015 18:05	3.00	393.2	Low Available Capacity
8/19/2015 16:00	8/19/2015 16:38	0.62	51	Voltage Support
8/19/2015 18:02	8/19/2015 19:00	0.96	51	Voltage Support



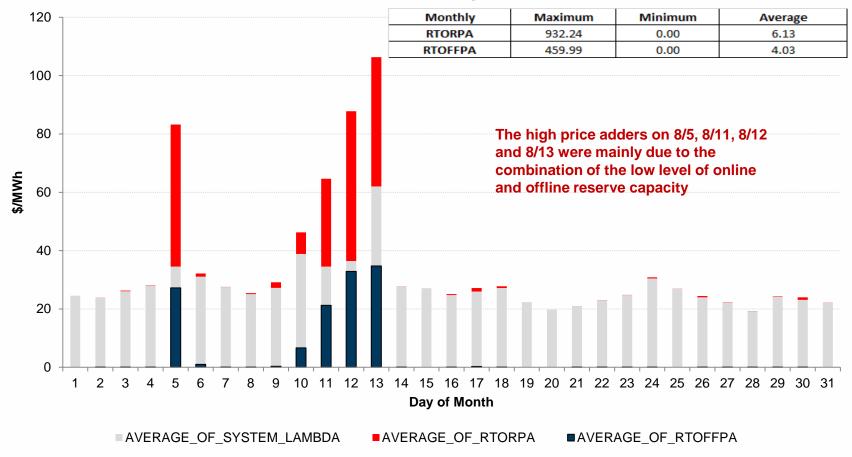
### **CRR Price Convergence – August 2015**





### **ORDC Price Adder (Daily Average) – August 2015**

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





## ERS Procurement for June 2015 – September 2015

	ВН1	BH2	ВН3	NBH
Non Weather-Sensitive ERS-10 MW	424.160	371.564	356.498	375.592
Non Weather-Sensitive ERS-30 MW	593.458	535.940	502.460	477.441
Weather-Sensitive ERS-30 MW	0.000	21.740	21.740	0.000
Total MW Procured	1,017.618	929.244	880.698	853.033
Clearing Price	\$2.40	\$26.44	\$26.96	\$2.80

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

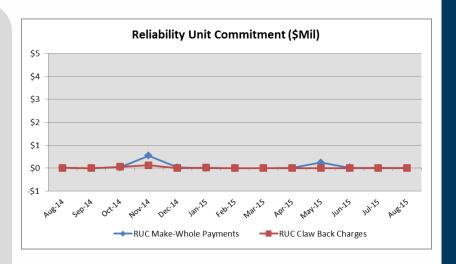
HE 1700 through 2000, Monday thru Friday except ERCOT Holidays

All other hours



### **Reliability Services – August 2015**

Reliability Unit Commitment (RUC)	\$ in Millions
RUC Make-Whole Payments	(\$0.01)
RUC Clawback Charges	\$0.00
RUC Commitment Settlement	(\$0.01)
RUC Capacity Short Charges	\$0.01
RUC Make-Whole Uplift	\$0.00
RUC Commitment Cost Allocation	\$0.01
RUC Decommitment Payments	\$0.00



RUC Make-Whole Payments were \$0.01M in August 2015. RUC Clawback Charges were \$0.00M.

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

- \$0.01M in July 2015
- \$0.01M in August 2014



### **Capacity Services – August 2015**

Capacity Services	\$ in Millions
Regulation Up Service	\$7.42
Regulation Down Service	\$1.20
Responsive Reserve Service	\$45.34
Non-Spinning Reserve Service	\$35.11
Black Start Service	\$0.63
Voltage Services - Reactive Power	\$0.00
Voltage Services - Lost Opportunity	\$0.00
Total Charges	\$89.70

Capacity Services costs increased from last month and from August 2014.

August 2015 cost was \$89.70M, compared to:

- A charge of \$40.54M in July 2015
- A charge of \$43.28M in August 2014



### **Energy Settlement – August 2015**

Day-Ahead Market Energy Settlement	\$ in Millions
Energy Purchases	\$972.83
Point to Point Obligation Purchases	\$25.59
RMR Day-Ahead Revenue	\$0.00
Energy Sales	(\$971.08)
Day-Ahead Congestion Rent	\$27.34
Day-Ahead Market Make-Whole Payments	\$0.00

Day-Ahead Market and Real-Time Market energy settlement activity increased from last month and from August 2014.

Real-Time Market Energy Settlement	\$ in Millions
Energy Imbalance at a Resource Node	(\$803.35)
Energy Imbalance at a Load Zone	\$1,150.28
Energy Imbalance at a Hub	(\$312.40)
Real Time Congestion from Self Schedules	\$0.36
Block Load Transfers and DC Ties	(\$10.99)
Impact to Revenue Neutrality	\$23.90
Emergency Energy Payments	(\$0.12)
Base Point Deviation Charges	\$0.26
Real-Time Metered Generation (MWh in millions)	36.68



# Congestion Revenue Rights (CRR) – August 2015

	\$ in Millions
Annual Auction	(\$28.26)
Monthly Auction	(\$8.72)
Total Auction Revenue	(\$36.98)
Day-Ahead CRR Settlement	(\$21.82)
Day-Ahead CRR Short-Charges	\$0.01
Day-Ahead CRR Short-Charges Refunded	(\$0.01)
Real-Time CRR Settlement	\$0.00
Real-Time CRR Short-Charges	\$0.00
Real-Time CRR Short-Charges Refunded	\$0.00
Total CRR Funding	(\$21.82)
Day-Ahead Point to Point Obligations Settlement	\$25.59
Real-Time Point to Point Obligation Settlement	(\$24.04)
Net Point to Point Obligation Settlement	\$1.55

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 charge of \$1.55M compared to a net credit of \$1.67M last month.



### **CRR Balancing Account Fund – August 2015**

CRR Balancing Account Fund	\$ in Millions
Beginning Balance for the Month	\$10.00
CRR Balancing Account Credit Total	\$5.53
CRR PTP Option Award Charges	\$0.06
Day-Ahead CRR Short-Charges Refunded	(\$0.01)
Load Allocated CRR Amount	(\$5.58)
Total Fund Amount	\$10.00

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

In the month of August 2015, the fund cap remained at \$10M and excess funds of \$5.58M were allocated to Load.



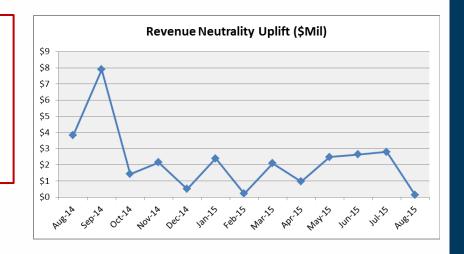
### **Revenue Neutrality – August 2015**

Revenue Neutrality Settlement	\$ in Millions
Real-Time Point to Point Obligation Settlement	(\$24.04)
Real-Time Point to Point Options and Options with Refund Settlement	\$0.00
Real-Time Energy Imbalance Settlement	\$34.53
Real-Time Congestion from Self-Schedules Settlement	\$0.36
DC Tie & Block Load Transfer Settlement	
Charge to Load	\$0.14

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

August 2015 was a charge of \$0.14M, compared to:

- \$2.79M charge in July 2015
- \$3.83M charge in August 2014





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

Real-Time Ancillary Service Imbalance	\$ in Thousands
Real-Time AS Imbalance Payment Amount	\$879.17
Load Allocated AS Imbalance Revenue Neutrality Amount	(\$879.17)
Total Charges	(\$879.17)

In August 2015, total charges to QSEs w/an Ancillary Service Imbalance were \$879,171, while total charges in July 2015 were \$435,666.

4 of the 31 days in August had settlement dollars equal to \$0 for the day.

27 of the 31 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 August 10<sup>th</sup> in the amount of \$91,208. The highest charge occurred on August 5<sup>th</sup> in the amount of \$489,536.



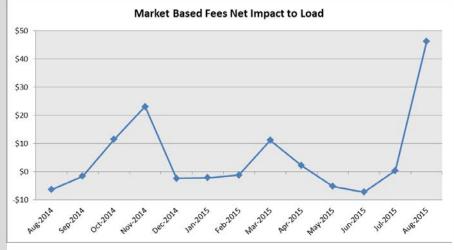
### **Net Allocation to Load – August 2015**

Market-Based Allocation	\$ in Millions
CRR Auction Revenue Disbursement Settlement	(\$36.98)
Balancing Account Proceeds Settlement	(\$5.58)
Net Reliability Unit Commitment Settlement	\$0.00
Ancillary Services Settlement	\$89.70
Reliability Must Run Settlement (incl. RMR for Capacity)	\$0.00
Real-Time Revenue Neutrality Settlement	\$0.14
Emergency Energy Settlement	\$0.12
Base Point Deviation Settlement	(\$0.26)
ORDC Settlement	(\$0.88)
Total	\$46.26
Fee Allocation	
ERCOT Administrative Fee Settlement	\$17.18
Net Allocated to Load	\$63.44

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

August 2015 was a charge of \$63.44M, compared to:

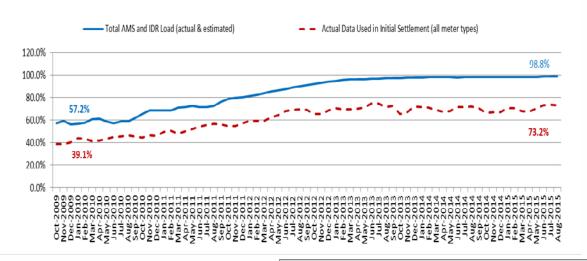
- A charge of \$17.51M in July 2015
- A charge of \$10.30M in August 2014





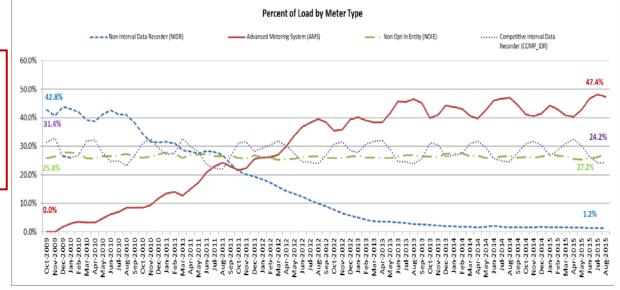
### **Advanced Meter Settlement Impacts – August 2015**





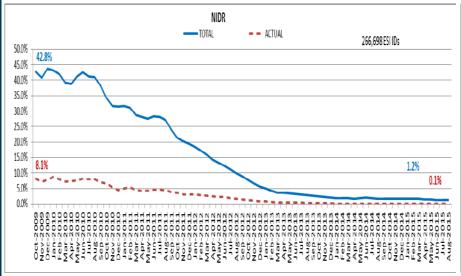
August 2015: At month end, settling 6.8M ESIIDs using Advanced Meter data.

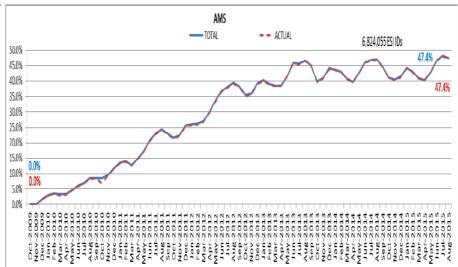
August 2015: 98.8% of the load in ERCOT is settled with 15-min interval data (AMS, Competitive IDR, and NOIE IDR).

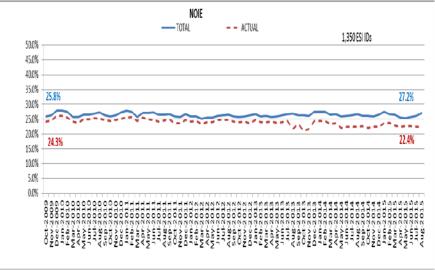


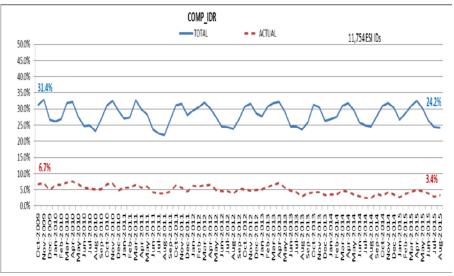


# ERCOT Wide Load Volumes by Meter Type – INITIAL Settlement – August 2015











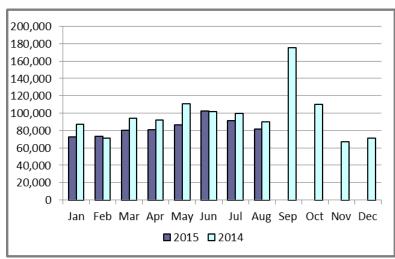
# **Retail Transaction Volumes – Summary – August 2015**

Year-	To-Date	Transactions Received			
August 2015	August 2015 August 2014		August 2014		
669,306	745,765	81,674	89,677		
0	0	0	0		
1,786,284	1,840,911	248,124	243,482		
916,560	918,084	123,894	121,662		
348,192	454,260	35,078	40,405		
0	5,614 0		639		
3,720,342	3,964,634	488,770	495,865		
	August 2015  669,306  0  1,786,284  916,560  348,192  0	669,306     745,765       0     0       1,786,284     1,840,911       916,560     918,084       348,192     454,260       0     5,614	August 2015         August 2014         August 2015           669,306         745,765         81,674           0         0         0           1,786,284         1,840,911         248,124           916,560         918,084         123,894           348,192         454,260         35,078           0         5,614         0		



### **Retail Transaction Volumes – Summary – August 2015**

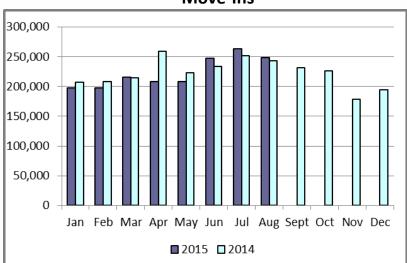
#### **Switches/Acquisitions**



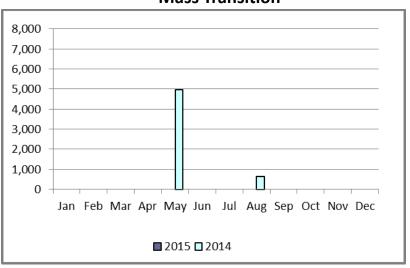
#### **Move-Outs**



#### Move-Ins

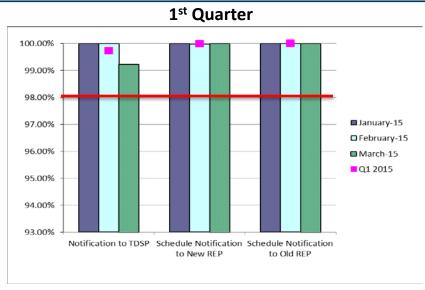


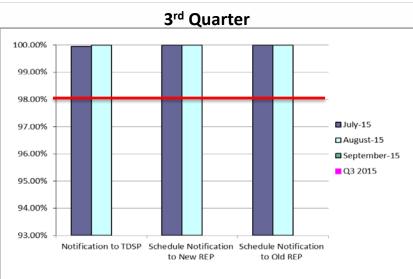
#### **Mass Transition**

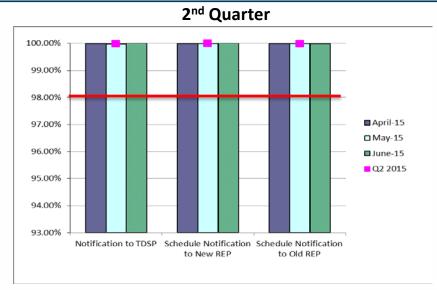


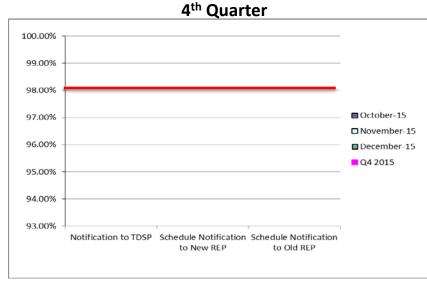


# Retail Performance Measures – Switch – August 2015



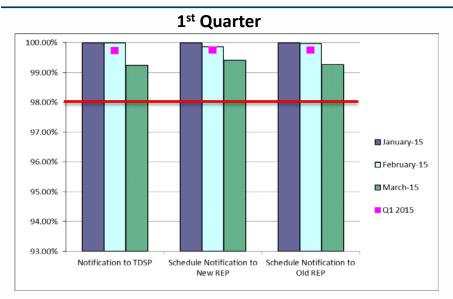


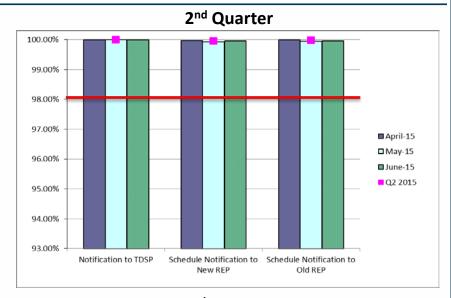


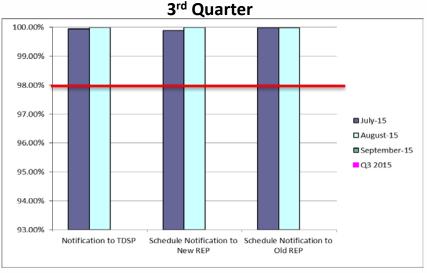


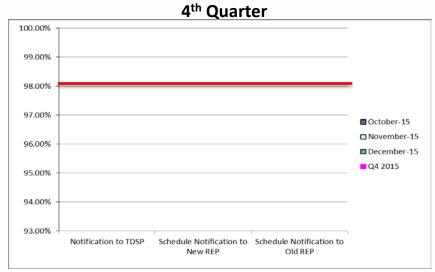


### Retail Performance Measures (Same Day Move-In) – August 2015



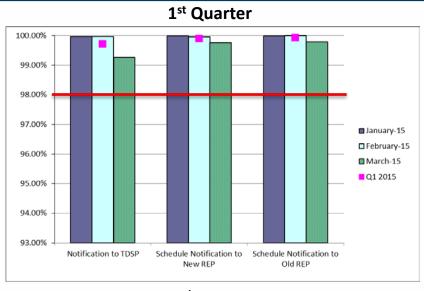






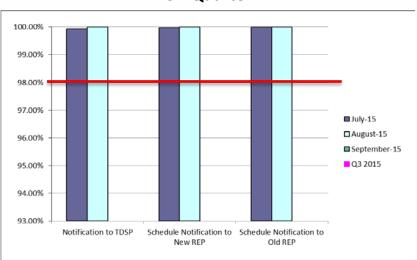


### Retail Performance Measures (Standard Move-In) - August 2015

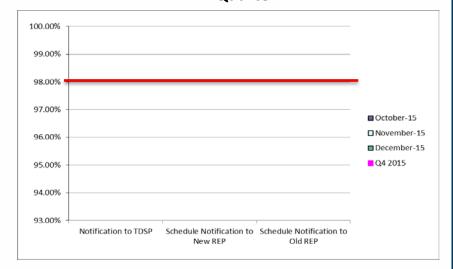








#### 4<sup>th</sup> Quarter





# **Projects Report**

	2015 Project Funding	\$ 21,650,000
Impact Metric Tolerances		2015 Portfolio Spending Estimate
Unfavorable variances are represented as negative numbers within the	Projects In Flight/On Hold (Count = 49)	\$ 22,893,651
- Vellow = Unfavorable variance between 4.9% and 9.9%	Projects Not Yet Started (Count = 17)	\$ 678,304
	Projects Completed (Count = 27)	\$ 2,377,391
Neu - Ginavorable variance more than 3.376	Spending Reductions Required to Maintain Capital Budget	\$ (4,299,346)
	TOTAL	\$ 21,650,000

Project Number	Projects in Initiation Phase (Count = 7)
174-01	2015 Outage Scheduler Enhancements
SCR783	Outage Scheduler Enhancements – Group 2, Usability and Filtering Enhancements
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
TBD	Infoblox Hardware Refresh
NPRR556	Resource Adequacy During Transmission Equipment Outage
NPRR573	Alignment of PRC Calculation
NPRR680	Allow QSEs to Self-Arrange AS Quantities Greater Than Their AS Obligation

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- 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 w as 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 fun.
- 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 = 12)	Baseline Phase Start	e Baseline Phase Scheduled Scheduled Phase Finish Schedule Impa		Schedule Impact		Bu	dget Impact	
106-01	MP Online Data Entry - Ph 1	10/9/2013	3/5/2014	TBD	10/8/2015	4	-395%		0%
141-01	Production Virtualization	11/6/2014	9/30/2015	TBD	9/30/2015		0%		0%
158-01	Move iTron LF Application to High Availability Environment	1/14/2015	6/19/2015	TBD	12/23/2015	4	-119%		69%
161-01	NPRRs 588 and 615	5/20/2015	7/15/2015	TBD	9/16/2015	1	-112%		0%
164-01	Browser Compatibility Assessment	2/25/2015	9/30/2015	TBD	9/7/2015		10%		2%
169-01	Short Circuit Ratio Functionality	4/6/2015	9/16/2015	TBD	11/4/2015	1	-30%		0%
172-01	Physical Security Project #2	8/27/2015	6/8/2016	TBD	6/8/2016		0%		0%
173-01	ERCOT Flight Certification Website	7/23/2015	12/11/2015	TBD	12/17/2015		-4%		5%
TBD	Enterprise Resource Planning	8/5/2015	9/2/2015	TBD	11/1/2015	1	-214%		0%
NPRR515	Day-Ahead Market Self-Commitment of Generation Resources	8/5/2015	9/18/2015	TBD	9/18/2015		0%		-1%
NPRR588	Clarifications for PV Generation Resources	5/20/2015	8/7/2015	TBD	9/16/2015	1	-50%	NA	See #161-01
NPRR615	PVGR Forecasting	5/20/2015	8/8/2015	TBD	9/16/2015	1	-48%	NA	See #161-01



Project Number	Projects in Execution Phase (Count = 18)	Baseline Phase Start	Baseline Go- Live Target	Scheduled Go-Live Date	Scheduled Phase Finish	Schedule Imp		Bu	dget Impact
052-01	EMS Upgrade	9/24/2014	5/25/2016	5/26/2016	11/1/2016		0%		3%
065-01	NMMS Upgrade	12/17/2014	5/27/2016	5/30/2016	7/12/2016		0%		6%
116-01	Collage Replacement	2/6/2014	9/22/2014	1/22/2016	2/8/2016	4	-213%	2	-91%
120-01	IT Production Hardening	5/21/2015	4/1/2016	3/25/2016	4/25/2016		2%		6%
134-01	Privileged Account Management	4/1/2015	9/30/2015	9/30/2015	10/30/2015		0%		10%
143-01	OSI Pi Visualization Enhancements	1/16/2015	6/19/2015	9/30/2015	10/30/2015	1	-66%		22%
144-01	OC-48 Replacement with DWDM	2/4/2015	12/22/2015	12/22/2015	1/26/2016		0%		-2%
155-01	Replace N2N System	2/5/2015	5/14/2015	10/8/2015	11/16/2015	2	-150%	2	-26%
163-01	Cyber Security Project #10	7/1/2015	9/15/2015	9/15/2015	11/30/2015		0%		-1%
165-00	Capital Efficiencies and Enhancements - 2015	1/1/2015	12/31/2015	12/31/2015	12/31/2015		0%		6%
168-01	Configuration Management System Requirements for CIP v5 Readiness	7/6/2015	12/16/2015	12/16/2015	12/30/2015		0%		0%
170-01	Enterprise Content Alignment Program	8/26/2015	1/5/2016	1/5/2016	1/5/2016		0%		24%
171-01	CIP v5 Readiness Project	7/22/2015	4/29/2016	4/1/2016	4/1/2016		9%		0%
NPRR553	Monthly BLT Payment and Charge for Presidio Exception	4/9/2015	10/25/2015	10/25/2015	10/25/2015		0%	NA	See #165-00
NPRR589	Ancillary Service Offers in the Supplemental Ancillary Services Market	3/1/2015	9/25/2015	9/25/2015	9/25/2015		0%		
NPRR595	RRS Load Resource Treatment in ORDC	8/5/2015	10/23/2015	10/23/2015	11/23/2015		0%	NA	See NPRR698
NPRR698	Clarifications to NPRR595, RRS Load Resource Treatment In ORDC	8/5/2015	10/23/2015	10/23/2015	11/23/2015		0%		34%
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
Project Number	Projects in Stabilization (Count = 8)	Baseline Execution Phase Start	ecution Phase Baseline Go- Actual Execution Phase Sched		dule Impact	Bu	dget Impact		
NPRR626	Reliability Deployment Price Adder	1/15/2015	6/28/2015	6/26/2015	9/7/2015		1%	NA	See #149-01
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
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
122-01	Infoblox DNS/DHCP	5/21/2014	11/5/2014	11/20/2014	8/31/2015	1	-8%		0%
127-01	SQL Server 2012 Upgrade / Cluster Consolidation	12/18/2014	7/19/2015	7/19/2015	9/9/2015		0%		17%
149-01	Market System Enhancements 2015	1/15/2015	6/28/2015	6/26/2015	9/7/2015		1%		18%
156-01	Symposium Call Center Replacement	2/5/2015	5/19/2015	8/21/2015	10/6/2015	2	-91%	2	-17%



Project Number	Projects On Hold (Count = 4)	Forecast Start Date	Baseline Phase Finish	Scheduled Go-Live Date	Scheduled Phase Finish	Schedule Impact		Bu	dget 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	
129-01	Access and Roles Management	7/1/2014	10/1/2014	TBD	TBD	3		3	
166-01	Jboss Application Monitoring & Management (JAMM)	TBD	TBD	TBD	TBD	3		3	
Project Number	Projects Completed (Count =27)	Baseline Execution Phase Start	Baseline Go- Live Target	Actual Go-Live Date	Actual Execution Phase Finish	Schedule Status		To	tal 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%
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%
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
NPRR639	Correction to Minimum Current Exposure	1/29/2015	6/13/2015	6/13/2015	7/10/2015		0%	NA	See #154-01
NPRR598	Clarify Inputs to PRC and ORDC	1/15/2015	6/28/2015	7/1/2015	7/31/2015		-1%	NA	See #149-01
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%		0%
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%
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%
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%



Project Number	2015 Projects Not Yet Started (Count = 17)	Forecast Start Date
NPRR419	Revise Real Time Energy Imbalance and RMR Adjustment Charge	Sep-2015
NPRR617	Energy Offer Flexibility	Sep-2015
NPRR620	Collateral Requirements for Counter-Parties with No Load or Generation	Sep-2015
NPRR662	Proxy Energy Offer Curves	Sep-2015
NPRR683	Revision to Available Credit Limit Calculation	Sep-2015
RRGRR003	Modifications to Improve Wind Forecasting	Sep-2015
TBD	AV Upgrades to TCC1 Conference Rooms	Sep-2015
TBD	Build Load Models for TSAT	Sep-2015
TBD	CRR Framework Upgrade	Sep-2015
TBD	Cyber Security Project #19	Sep-2015
TBD	Emergency Energy Settlements Inputs Automation	Sep-2015
RMGRR126	Additional ERCOT Validations for Customer Billing Contact Information File	Oct-2015
RRGRR006	Clarification of Descriptions and Alignment with Resource Asset Registration Forms	Oct-2015
TBD	CREZ Voltage Control and Coordination - Phase 2	Oct-2015
TBD	Privileged Account Management - SSAE16	Oct-2015
TBD	Records Management and eDiscovery	Oct-2015
NPRR679	ONOPTOUT for RUC Given After the Adjustment Period	Nov-2015

