

ERCOT Monthly Operational Overview (August 2014)

ERCOT Public September 15, 2014

Grid Planning & Operations

Summary - August 2014

August 2014 Operations

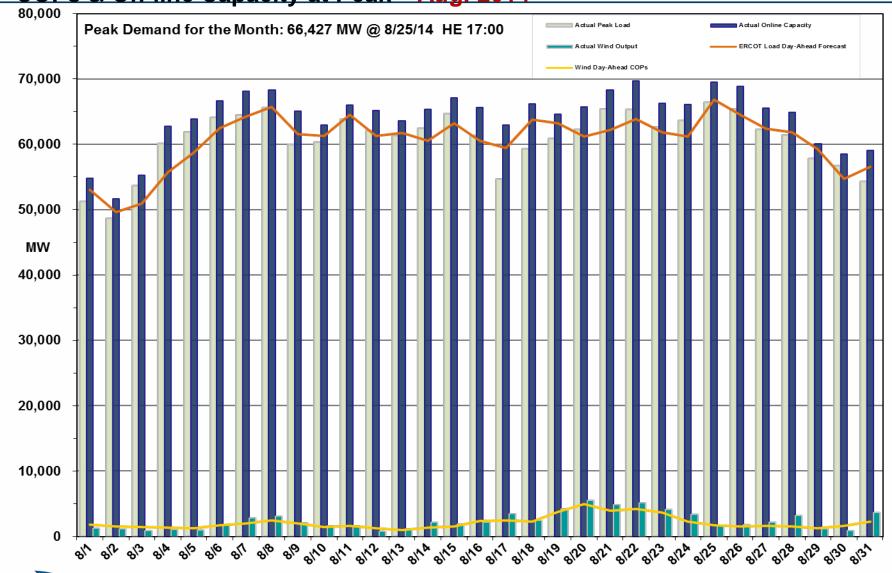
- The peak demand of 66,427 MW on August 25th was less than the mid-term forecast peak of 66,849 MW as well as the August 2013 actual peak demand of 67,245 MW. The instantaneous load on August 25th was 66,622 MW.
- Day-ahead load forecast error for August was 2.35%
- ERCOT issued 5 notifications
 - Two OCNs due to projected reserve capacity shortages.
 - A single OCN for an EMMS site failover.
 - A single advisory due to ERCOT's Voltage Security Assessment Tool (VSAT) being unavailable.
 - A single advisory for the deadline for DAM submissions being extended.

Planning Activities

- 230 active generation interconnection requests totaling over 62,800 MW, including 25,300 MW of wind generation as of August 31, 2014. One less request and 200 less MW from July 31, 2014.
- 11,509 MW wind capacity in commercial operations on August 31, 2014.



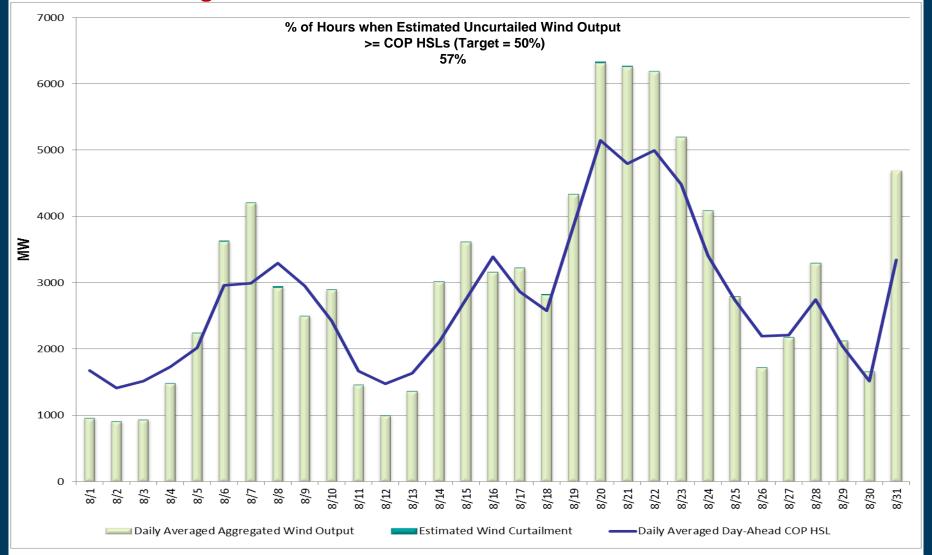
Daily Peak Demand: Hourly Average Actual vs. Forecast, Wind Day-Ahead COPs & On-line Capacity at Peak – Aug. 2014





Actual Wind Output plus Curtailments vs. Wind Day-Ahead COPs for

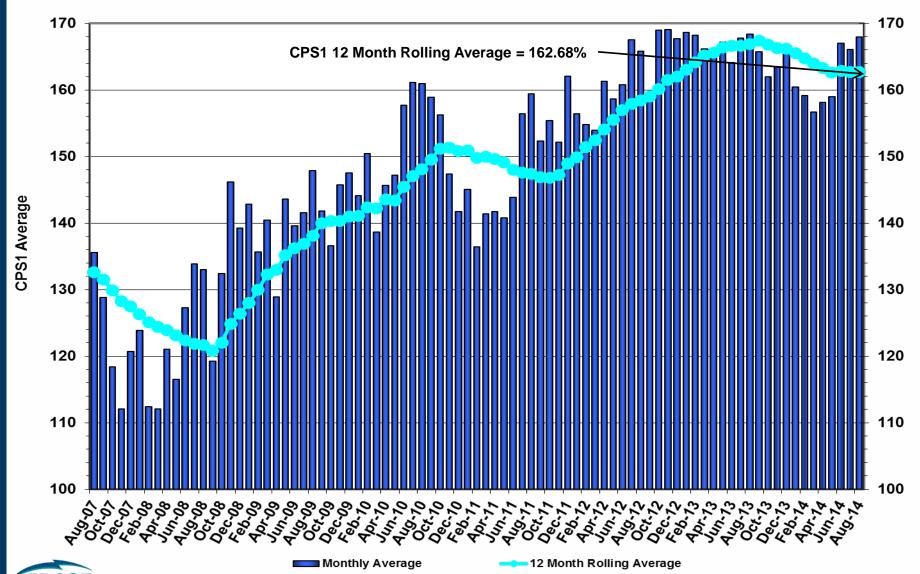
All Hours - Aug. 2014



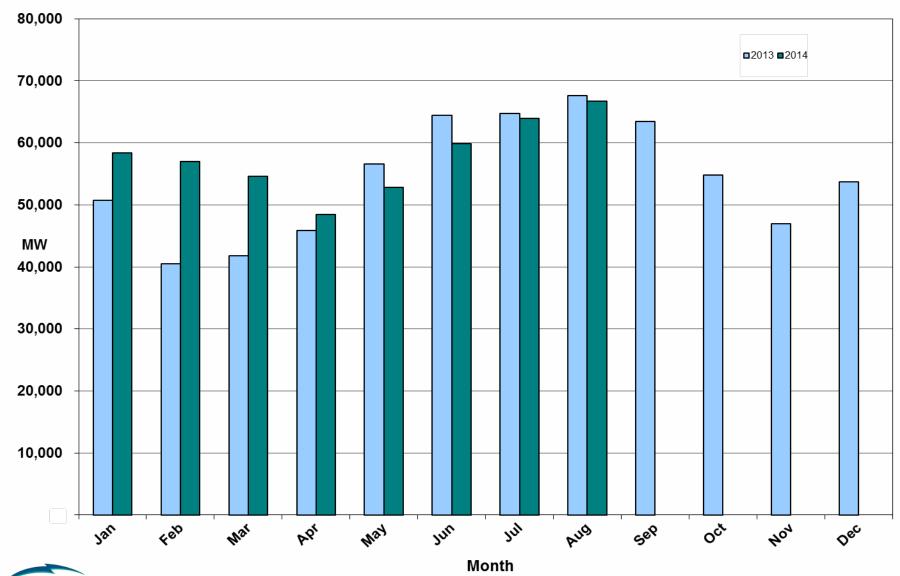


Note: QSEs must use the AWST 50% probability of exceedance forecast as the HSL in their COPs

ERCOT's CPS1 Monthly Performance – Aug. 2014

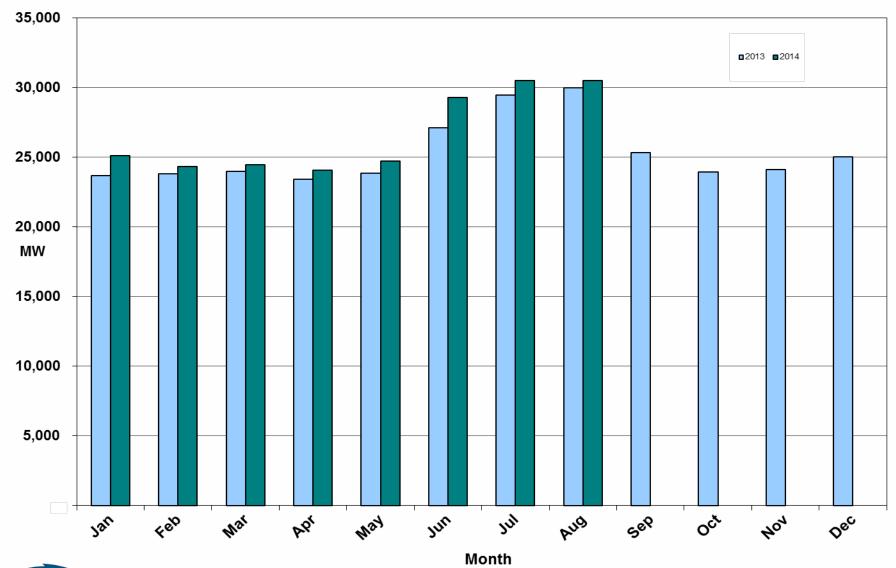


Monthly Peak Actual Demand - Aug. 2014





Monthly Minimum Actual Demand – Aug. 2014





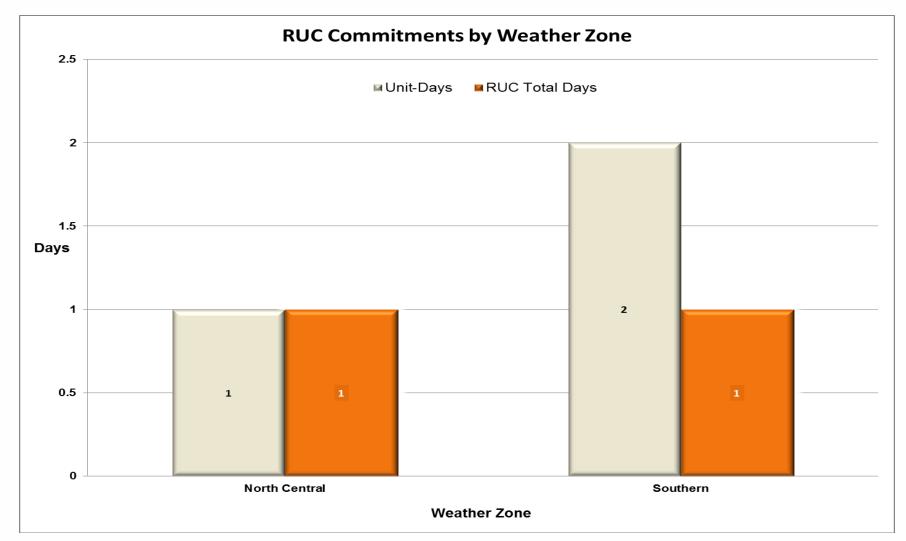
Day-Ahead Load Forecast Performance – Aug. 2014

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

	2011 MAPE	2012 MAPE	2013 MAPE	2014 MAPE	Augus MA	
Average Annual MAPE	2.83	3.02	2.86	3.03	2.:	35
Lowest Monthly MAPE	1.63	2.51	2.07	2.35	Lowest Daily MAPE	0.78 Aug – 27
Highest Monthly MAPE	3.55	3.49	3.50	3.70	Highest Daily MAPE	5.60 Aug – 17



Reliability Unit Commitment (RUC) Capacity by Weather Zone - Aug. 2014





Generic Transmission Limits (GTLs) - Aug. 2014

GTLs	Aug 13 Days GTLs	Jun 14 Days GTLs	Jul 14 Days GTLs	Aug 14 Days GTLs	Last 12 Months Total Days (Sep13 - Aug14)
North – Houston	0	0	0	0	0
West – North	0	0	0	0	12
Valley Import	0	0	0	0	7
SOP110	0	0	0	0	10

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 – Aug. 2014

- Two OCNs due to projected reserve capacity shortages.
 - Issued on 08/05 and 08/07
- A single OCN for an EMMS site failover.
 - Issued once on 08/17
- A single advisory due to ERCOT's Voltage Security Assessment Tool (VSAT) being unavailable.
 - Issued once on 08/17
- A single advisory for the deadline for DAM submissions being extended.
 - Issued once 08/18

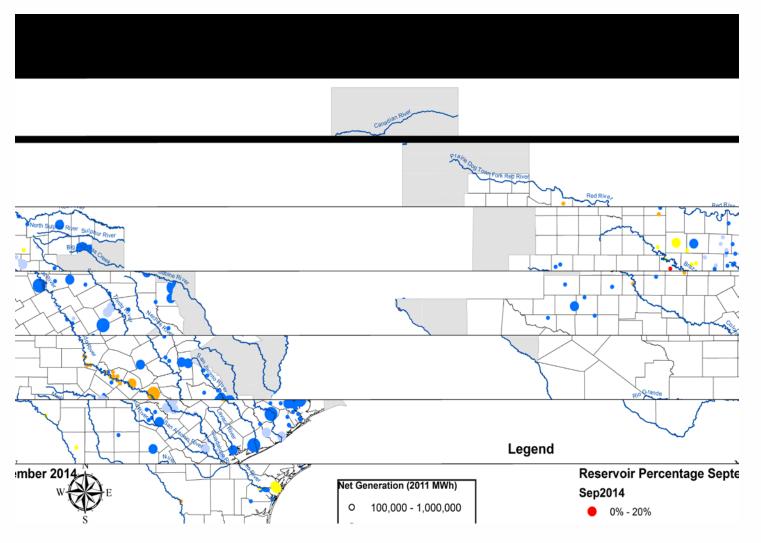


Significant Events – August 2014

• No significant events to report



Lake Levels Update - September 1, 2014



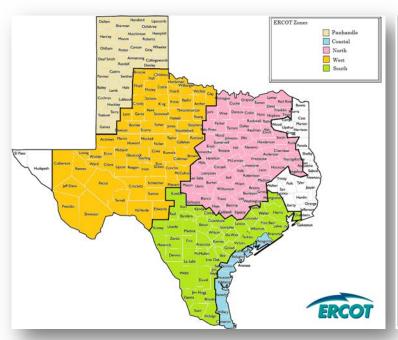


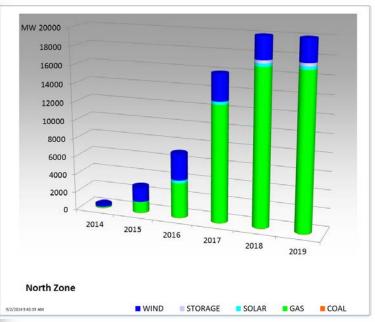
Planning Summary – August 2014

- ERCOT is currently tracking 230 active generation interconnection requests totaling over 62,800 MW. This includes over 25,300 MW of wind generation.
- ERCOT is currently reviewing proposed transmission improvements with a total cost of \$393.6 Million.
- Transmission Projects endorsed in 2014 total \$754.4 Million.
- All projects (in engineering, routing, licensing and construction) total approximately \$4.98 Billion.
- Transmission Projects energized in 2014 total about \$438.2 Million.

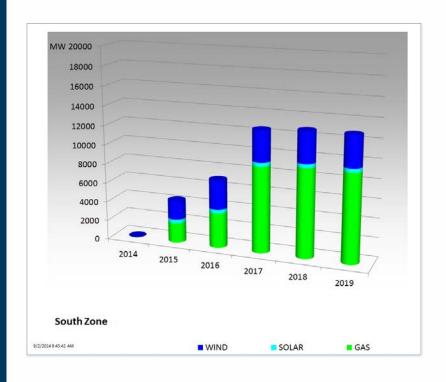


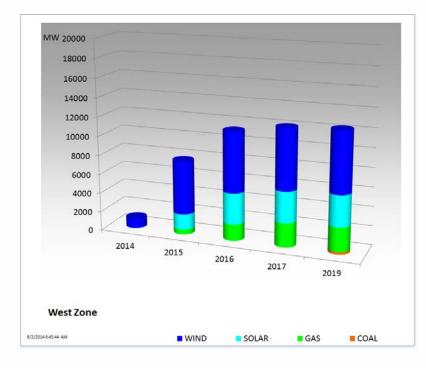
Cumulative Installed MW Capacity of Interconnection Requests by Zone – Aug. 2014



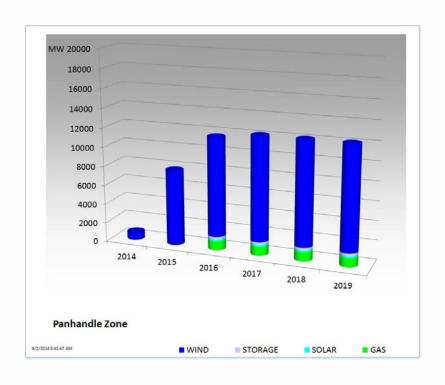


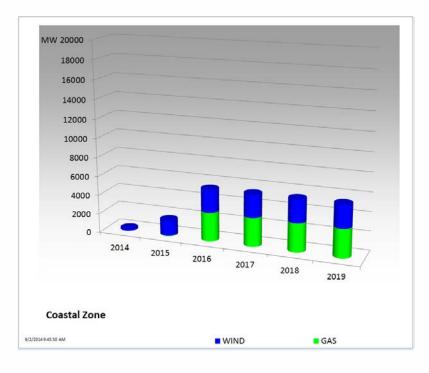
Cumulative Installed MW Capacity of Interconnection Requests by Zone – Aug. 2014



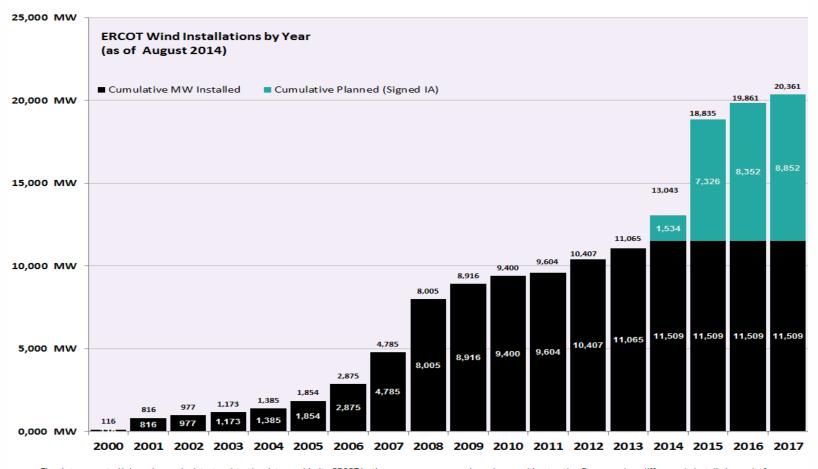


Cumulative Installed MW Capacity of Interconnection Requests by Zone – Aug. 2014





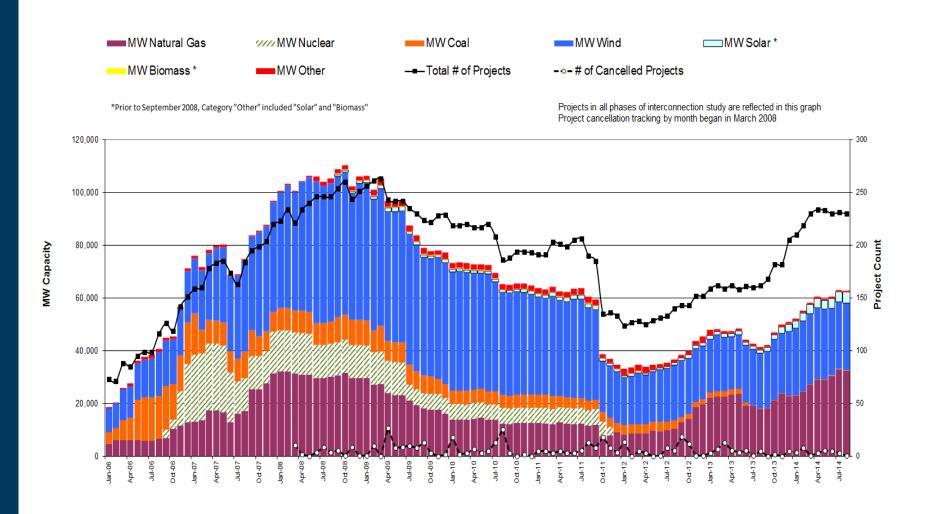
Wind Generation – Aug. 2014



The data presented is based upon the latest registration data provided to ERCOT by the resource owners and can change without notice. For example, a difference in installed capacity from one GIS Report to the next reflects updated turbine capacity ratings reported in submissions of revised Resource Asset Registration Forms (RARFs). Planned resources are shown in the calendar of the projected completion date and any delays in the projected completion dates will be reflected as that information is received by ERCOT.

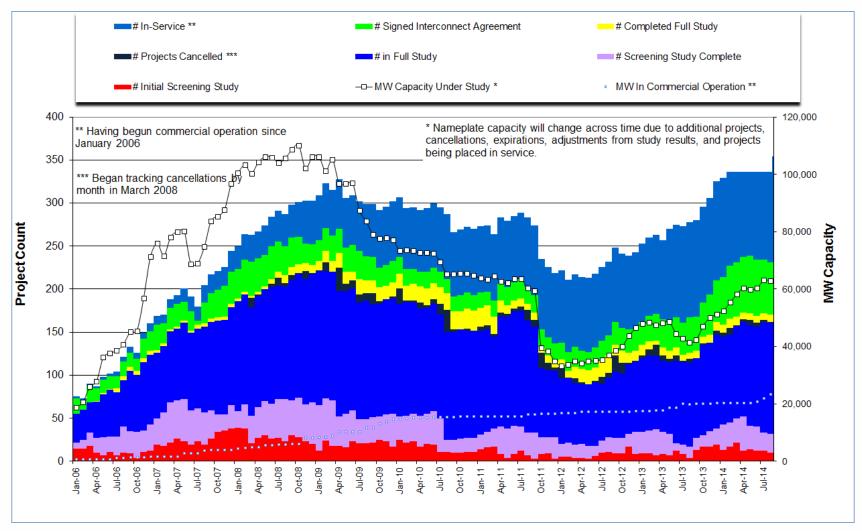


Generation Interconnection Activity by Fuel – Aug. 2014





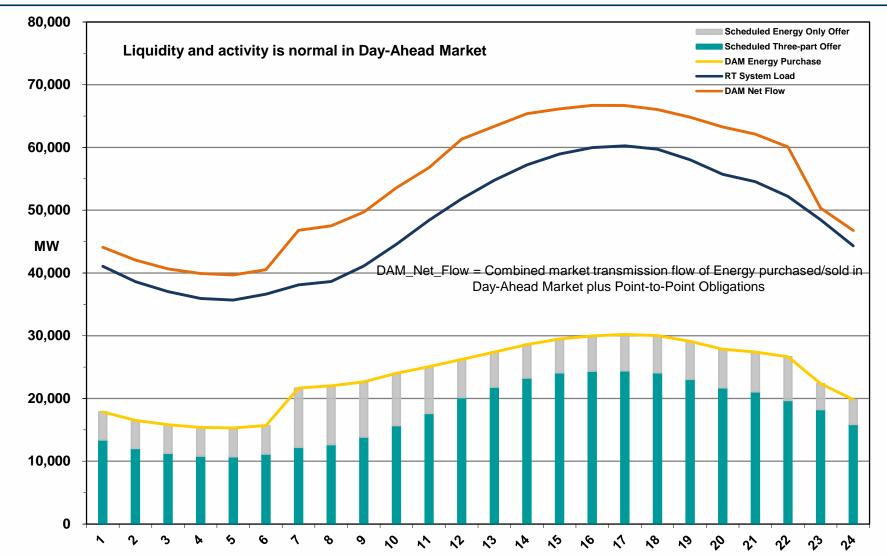
Generation Interconnection Activity by Project Phase – Aug. 2014





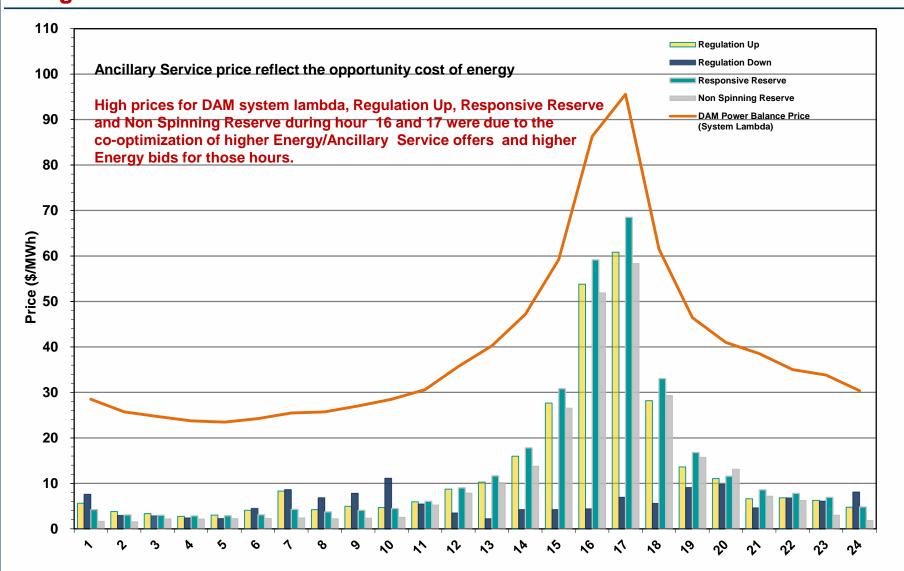
Market Operations

Day-Ahead Schedule (Hourly Average) - August 2014



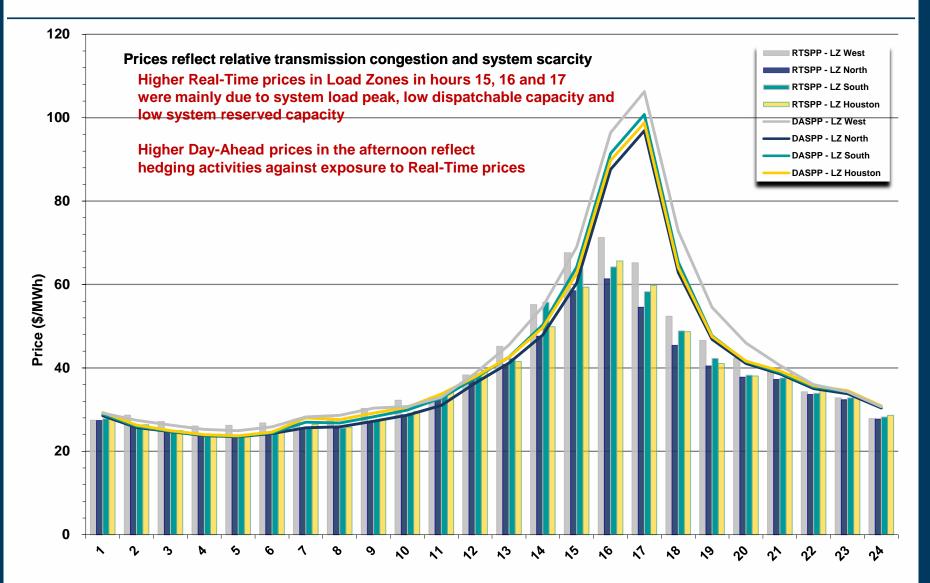


Day-Ahead Electricity And Ancillary Service Hourly Average Prices – August 2014



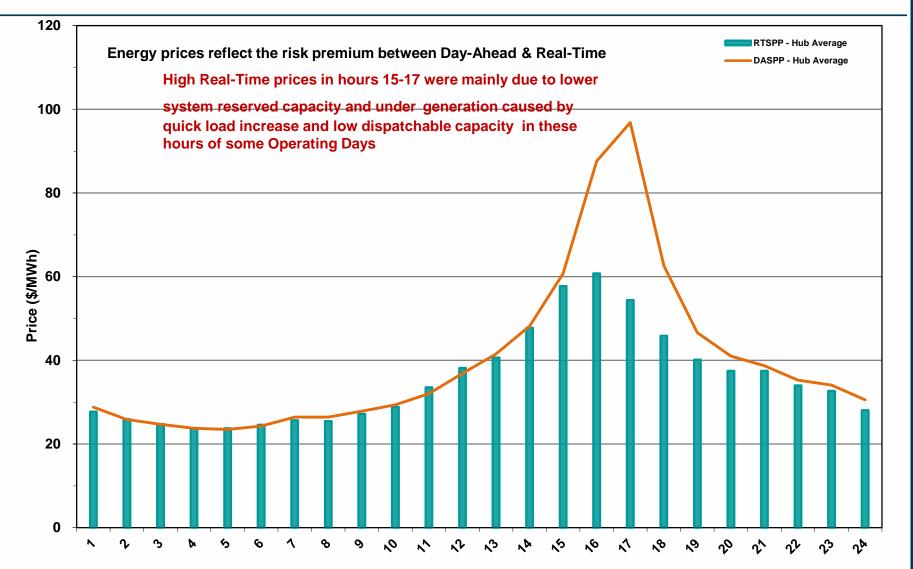


Day-Ahead Vs Real-Time Load Zone SPP (Hourly Average) – August 2014



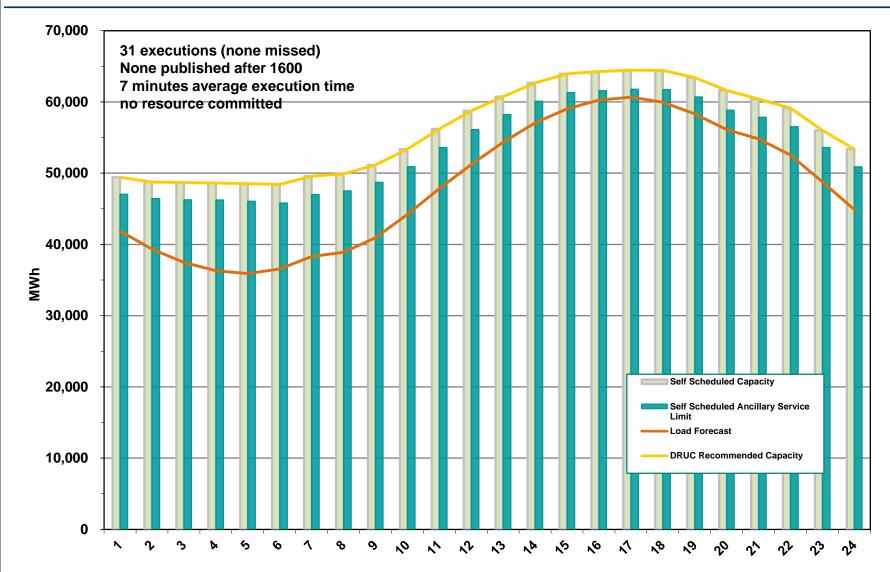


Day-Ahead Vs Real-Time Hub Average SPP (Hourly Average) – August 2014



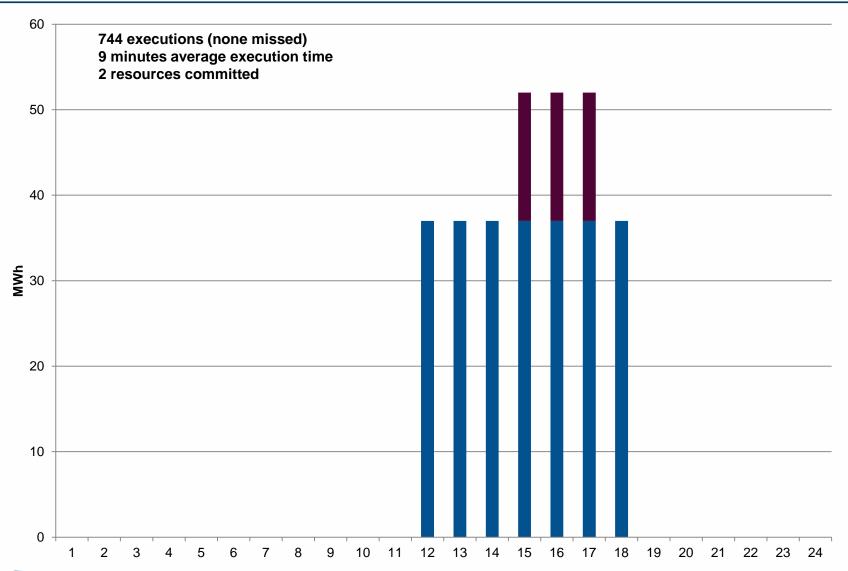


DRUC Monthly Summary (Hourly Average) – August 2014





HRUC Monthly Summary – August 2014

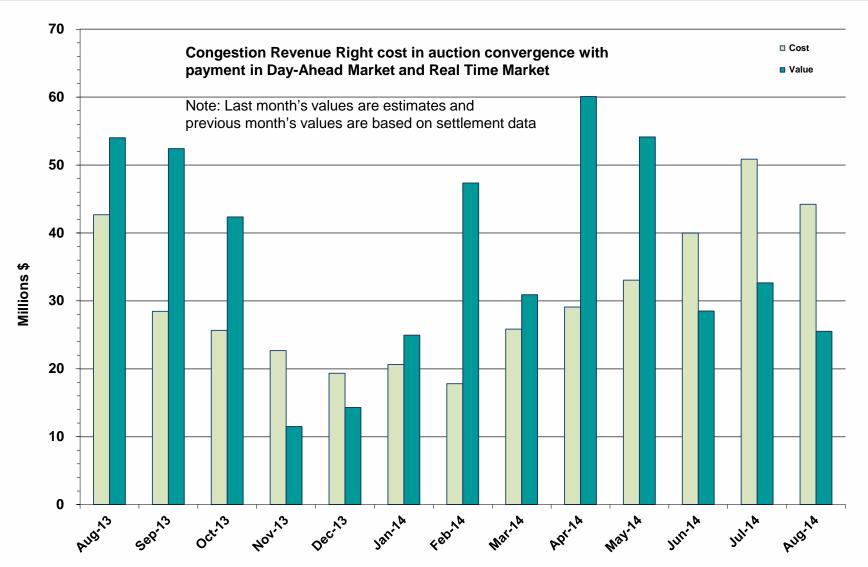




Non-Spinning Reserve Service Deployment – August 2014

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

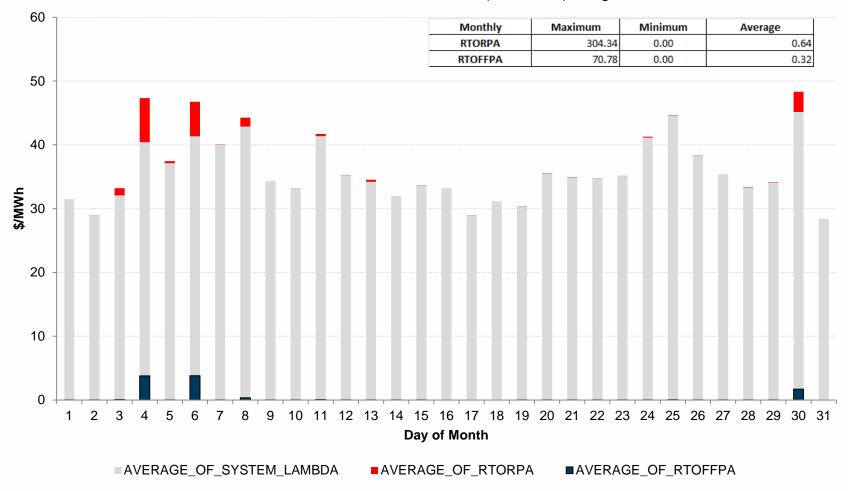
CRR Price Convergence – August 2014





ORDC Price Adder (Daily Average) - August 2014

Average Daily Real-Time System Lambda, Real-Time On-Line Reserve Price Adder (RTORPA), and Real-Time Offline Reserve Price Adder (RTOFFPA) - August 2014





ERS Procurement for June 2014 – September 2014

JunSep2014 cleared with a common Clearing Price for ERS-10, ERS-30, and ERS-WS.

	BH1	BH2	ВН3	NBH
ERS-10 MW Procured	630.614	454.03	451.533	574.559
ERS-30 MW Procured	200.874	166.954	152.467	163.905
ERS-WS MW Procured	N/A	21.6	21.6	N/A
Clearing Price (Per MW per Hour)	\$3.00	\$38.53	\$39.43	\$3.35

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

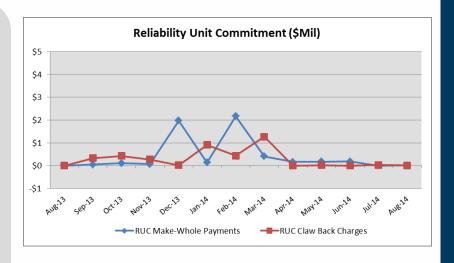
HE 1700 through 2000, Monday thru Friday except ERCOT Holidays

All other hours



Reliability Services – August 2014

Reliability Unit Commitment (RUC)	\$ in Millions
RUC Make-Whole Payments	(\$0.01)
RUC Clawback Charges	\$0.01
RUC Commitment Settlement	\$0.00
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 increased in August, while RUC Clawback Charges decreased in August.

RUC settlement allocated directly to load was a credit of \$0.01M in August 2014, compared to:

- \$0.03M credit in July 2014
- No allocation in August 2013



Capacity Services – August 2014

Capacity Services	\$ in Millions
Regulation Up Service	\$4.09
Regulation Down Service	\$2.08
Responsive Reserve Service	\$24.73
Non-Spinning Reserve Service	\$11.78
Black Start Service	\$0.60
Voltage Services - Reactive Power	\$0.00
Voltage Services - Lost Opportunity	\$0.00
Total Charges	\$43.28

Capacity Services costs were are up from last month and from August 2013.

August 2014 cost was \$43.28M, compared to:

- \$28.61M in July 2014
- \$30.20M in August 2013



Energy Settlement – August 2014

Day-Ahead Market Energy Settlement	\$ in Millions
Energy Purchases	\$760.10
Point to Point Obligation Purchases	\$29.29
RMR Day-Ahead Revenue	\$0.00
Energy Sales	(\$754.60)
Day-Ahead Congestion Rent	\$34.79
Day-Ahead Market Make-Whole Payments	(\$0.08)

Both Day-Ahead Market and Real-Time Market energy settlement activity increased from last month and from August 2013.

Real-Time Market Energy Settlement	\$ in Millions
Energy Imbalance at a Resource Node	(\$779.59)
Energy Imbalance at a Load Zone	\$1,142.20
Energy Imbalance at a Hub	(\$320.40)
Real Time Congestion from Self Schedules	\$0.81
Block Load Transfers and DC Ties	(\$11.78)
Impact to Revenue Neutrality	\$31.24
Emergency Energy Payments	(\$0.10)
Base Point Deviation Charges	\$0.33
Real-Time Metered Generation (MWh in millions)	35.62



Congestion Revenue Rights (CRR) – August 2014

	\$ in Millions
Annual Auction	(\$35.53)
Monthly Auction	(\$8.69)
Total Auction Revenue	(\$44.22)
Day-Ahead CRR Settlement	(\$25.52)
Day-Ahead CRR Short-Charges	\$0.00
Day-Ahead CRR Short-Charges Refunded	\$0.00
Real-Time CRR Settlement	\$0.00
Real-Time CRR Short-Charges	\$0.00
Real-Time CRR Short-Charges Refunded	\$0.00
Total CRR Funding	(\$25.52)
Day Aband Baint to Baint Oblinations October 1	#00.00
Day-Ahead Point to Point Obligations Settlement	\$29.29
Real-Time Point to Point Obligation Settlement	(\$35.06)
Net Point to Point Obligation Settlement	(\$5.77)

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

Distribution of Balancing Account funds to load for August 2014 was \$9.30M, compared to:

- \$3.69M in July 2014
- \$4.42M in August 2013

Point to Point Obligations settled with a net payment of \$5.77M compared to a net payment of \$3.77M last month.



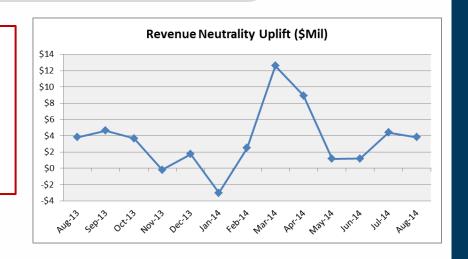
Revenue Neutrality – August 2014

Revenue Neutrality Settlement	\$ in Millions
Real-Time Point to Point Obligation Settlement	(\$35.06)
Real-Time Point to Point Options and Options with Refund Settlement	\$0.00
Real-Time Energy Imbalance Settlement	\$42.20
Real-Time Congestion from Self-Schedules Settlement	\$0.81
DC Tie & Block Load Transfer Settlement	(\$11.78)
Charge to Load	\$3.83

Revenue Neutrality charges to load decreased compared to last month and slightly increased compared to August 2013.

August 2014 was a charge of \$3.83M, compared to:

- \$4.39M charge in July 2014
- \$3.82M charge in August 2013





Real Time Ancillary Service Imbalance (ORDC)- August 2014

Real Time Ancillary Service Imbalance	\$ in Thousands
Real-Time AS Imbalance Payment Amount	(\$204.21)
Load Allocated AS Imbalance Revenue Neutrality Amount	\$204.21
Total Charges	\$204.21

Real Time Ancillary Service Imbalance settlements increased from July 2014 to August 2014. Total payments for the month of July 2014 were \$57,500 compared to a payment of \$204,206 in August 2014.

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

All days were settled as a net credit to QSEs representing generation and as a charge to QSEs representing load.

The highest settlement occurred on August 30th. The total Real Time Ancillary Service Imbalance payments on that day were \$56,820.14.



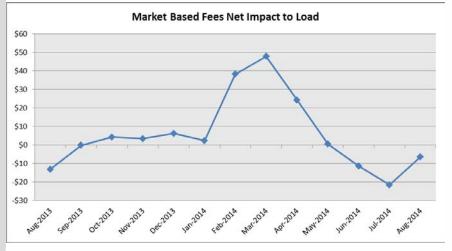
Net Allocation to Load – August 2014

Market-Based Allocation	\$ in Millions
CRR Auction Revenue Disbursement Settlement	(\$44.22)
Balancing Account Proceeds Settlement	(\$9.30)
Net Reliability Unit Commitment Settlement	\$0.00
Ancillary Services Settlement	\$43.28
Reliability Must Run Settlement (incl. RMR for Capacity)	\$0.00
Real-Time Revenue Neutrality Settlement	\$3.83
Emergency Energy Settlement	\$0.10
Base Point Deviation Settlement	(\$0.33)
ORDC Settlement	\$0.20
Total	(\$6.44)
Fee Allocation	
ERCOT Administrative Fee Settlement	\$16.74
Net Allocated to Load	\$10.30

The charge for the net allocation to Load increased from last month and from August of 2013.

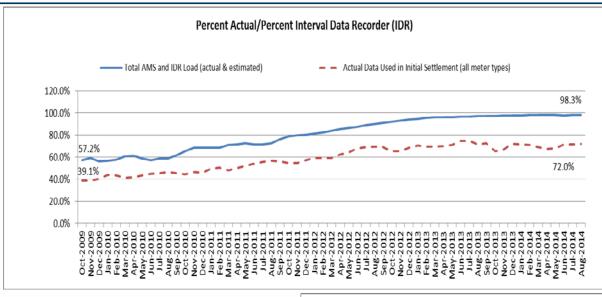
August 2014 was a charge of \$10.30M, compared to:

- A credit of \$5.73M in July 2014
- A charge of \$1.67M in August 2013



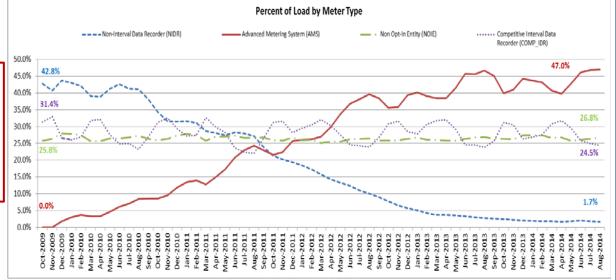


Advanced Meter Settlement Impacts – August 2014



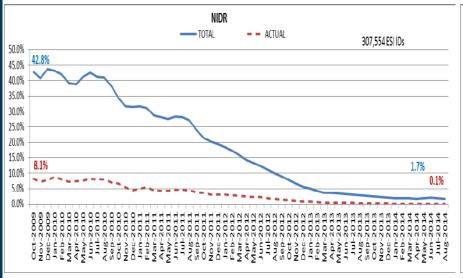
August 2014: At month end, settling 6.6M ESIIDs using Advanced Meter data.

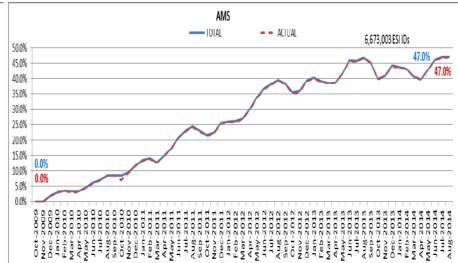
August 2014: 98.3% of the load in ERCOT is settled with 15-min interval data (AMS, Competitive IDR, and NOIE IDR).

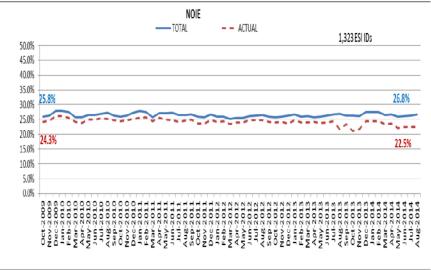


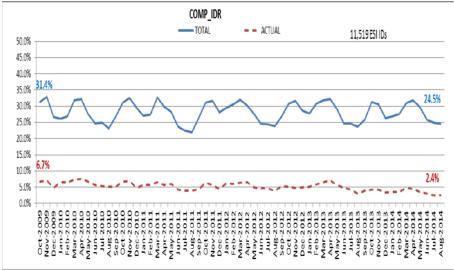


ERCOT Wide Load Volumes by Meter Type – INITIAL Settlement – August 2014











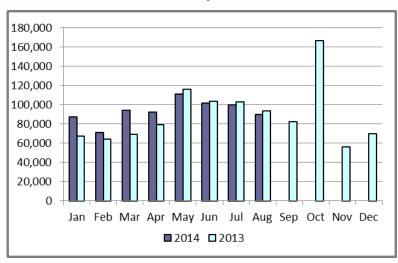
Retail Transaction Volumes – Summary – August 2014

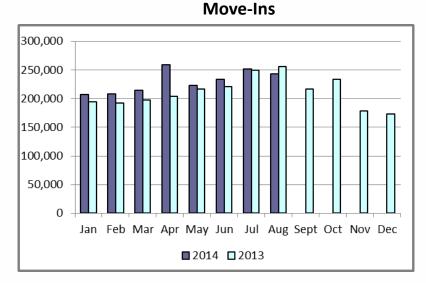
	Year-	To-Date	Transactions Received			
Transaction Type	August 2014 August 2013		August 2014	August 2013		
Switches	745,765	694,912	89,677	93,194		
Acquisition	0	0	0	0		
Move - Ins	1,840,911	1,730,534	243,482	255,967		
Move - Outs	918,084	931,178	121,662	129,594		
Continuous Service Agreements (CSA)	454,260	383,480	40,405	52,585		
Mass Transitions	5,614	0	639	0		
Total	3,964,634	3,740,104	495,865	531,340		



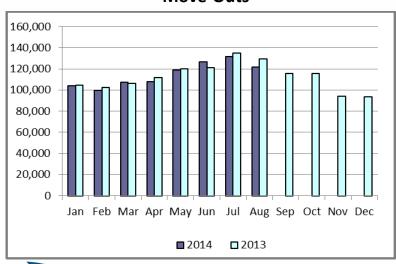
Retail Transaction Volumes – Summary – August 2014

Switches/Acquisitions

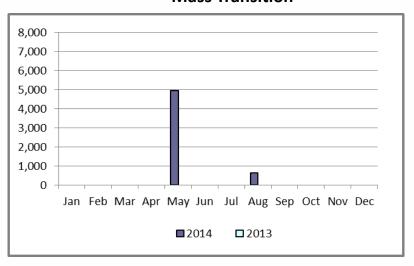




Move-Outs

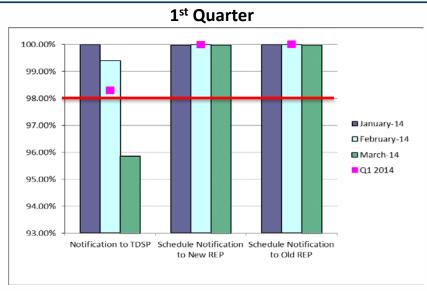


Mass Transition





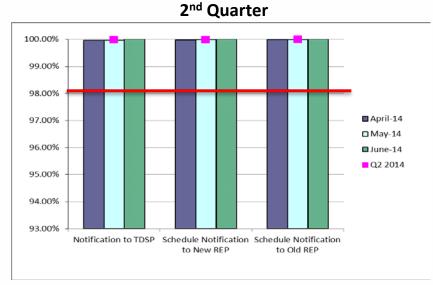
Retail Performance Measures – Switch – August 2014

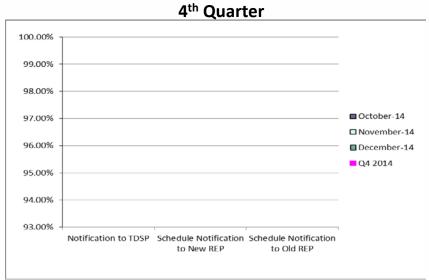




to New REP

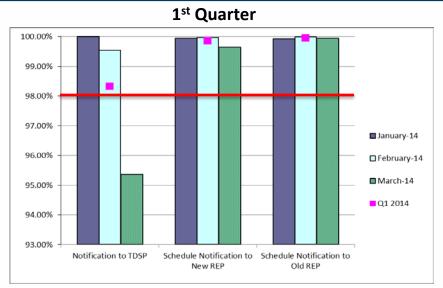
to Old REP

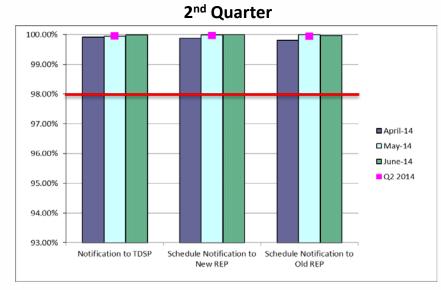


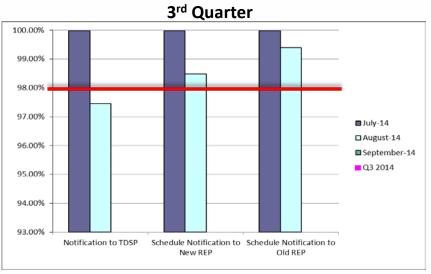


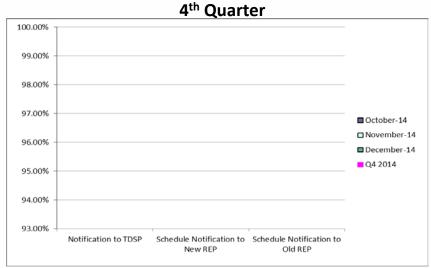


Retail Performance Measures (Same Day Move-In) - August 2014



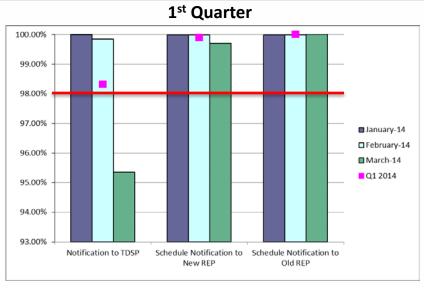


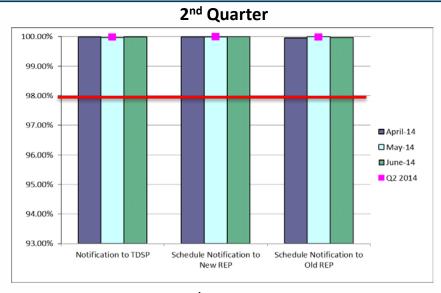


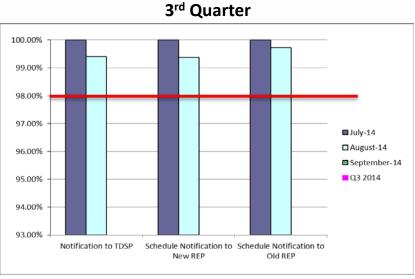


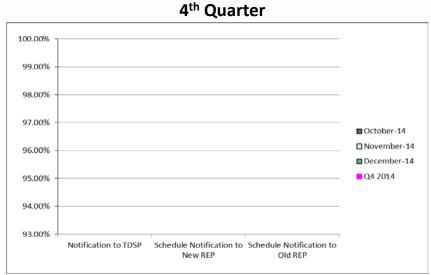


Retail Performance Measures (Standard Move-In) - August 2014











Projects Report

				2014 Project Fundin	g	\$ 25,000,000			
	Impact Metric Tolerances					2014 Portfolio Spending Estimate	Total Portfolio Demand		
	e variances are represented as negative numbers within the	report.	Projects In Flight	t/On Hold (Count = 67)		\$ 25,455,371	\$ 60,068,513		
- Green = No more than 4.9% unfavorable variance - Yellow = Unfavorable variance between 4.9% and 9.9%			Projects Not Yet Started (Count = 17)			\$ 444,570	\$ 6,203,764		
- Red = Unfavorable variance more than 9.9%						\$ 311,532	\$ 904,141		
			tions Required to Main	tain Capital Bude		N/A			
			TOTAL	nons Required to Main	tani Capitai Duug	\$ 25,000,000	\$ 67,176,419		
			TOTAL			\$ 23,000,000	\$ 67,176,415		
Project Number	Projects in Initiation Phase (Count = 12)	Phase							
141-01	Production Virtualization Expansion	Initiation							
143-01	OSI Pi Visualization Enhancements	Initiation							
TBD	OC-48 Replacement with DWDM	Initiation							
TBD	Move iTron LF Application to High Availability Environment	Initiation							
NPRR500	Posting of Generation that is Off but Available	Initiation							
NPRR543	Message for Confirmed E-Tags	Initiation							
NPRR559	Revisions to MCE Calculation	Initiation							
NPRR597	Utilize Initial Estimated Liability (IEL) Only During Initial Market Activity	Initiation							
NPRR601	Inclusion of Incremental Exposure in Mass Transitions to Counter- Parties that are Registered as QSEs and LSEs and Provide POLR Service	Initiation							
NPRR626	Reliability Deployment Price Adder	Initiation							
SCR775	Posting Results of Real-Time Data in a Display Format	Initiation							
SCR778	Credit Exposure Calculations for NOIE Options Linked to RTM PTP Obligations	Initiation							
Project Number	Projects in Planning Phase (Count = 14)	Phase	Baseline Phase Start	Baseline Phase Finish	Scheduled Go-Live Date	Scheduled Phase Finish	Schedule Impact	Budg	get Impact
052-01	EMS Upgrade	Planning Ph2	8/7/2013	10/30/2014	TBD	10/31/2014	0%		1%
065-01	NMMS Upgrade	Planning Ph2	8/1/2013	11/21/2014	TBD	12/5/2014	-2%		1%
074-02	Cyber Security Project #9	Planning	12/17/2013	8/6/2014	TBD	9/22/2014	1 -20%		0%
089-01	Information Technology Change Management	Planning	4/10/2013	4/2/2014	TBD	10/13/2014	1 -54%	1	-30%
104-01	Disaster Recovery: S&B, RTL, MDT	Planning	5/15/2013	11/15/2013	TBD	10/22/2014	1 -185%	1	-14%
106-01	MP Online Data Entry - Ph 1	Planning	10/9/2013	3/5/2014	TBD	1/2/2015	4 -206%		0%
120-01	IT Production Hardening	Planning	2/12/2014	9/24/2014	TBD	9/24/2014	0%		0%
127-01	SQL Server 2012 Upgrade / Cluster Consolidation	Planning	3/6/2014	8/27/2014	TBD	11/19/2014	2 -48%		42%
129-01	Access and Roles Management	Planning	7/1/2014	10/1/2014	TBD	10/29/2014	2 -30%	2	-5%
133-01	Testing Environment Management	Planning	8/27/2014	10/15/2014	TBD	10/8/2014	14%		0%
134-01	Privileged Account Management	Planning	6/5/2014	11/19/2014	TBD	11/19/2014	0%		0%
142-01	Implementation of NERC BAL-TRE-001 Regional Standard	Planning	8/14/2014	12/19/2014	TBD	12/19/2014	0%		1%
SCR777	Bilateral CRR Interface Enhancement	Planning	8/20/2014	9/19/2014	TBD	9/19/2014	0%		0%
SCR779	Increase to the CRR Auction Transaction Limit	Planning	7/9/2014	8/29/2014	TBD	9/17/2014	1 -37%		9%



Project Number	Projects in Execution Phase (Count = 23)	Phase	Baseline Phase Start	Baseline Go-Live Target	Scheduled Go-Live Date	Scheduled Phase Finish	Schedule Impact		Bu	dget Impact
10052_01	Settlement System Upgrade	Execution	1/25/2012	12/23/2014	12/6/2014	4/17/2015		1%		-4%
017-01	Oracle 11g Upgrade	Execution	10/10/2012	7/26/2014	8/7/2014	8/7/2014		-1%		-2%
057-01	EPS Metering DB Redesign	Execution	4/17/2013	9/6/2013	10/22/2014	11/19/2014	2	-289%	2	-173%
066-01	Planning Site Transition to MIS	Execution	7/2/2014	10/16/2014	10/16/2014	12/3/2014		0%		16%
097-01	ABB MMS OS Technology Refresh	Execution	8/15/2014	3/26/2015	3/26/2015	5/8/2015		0%		0%
115-01	Cyber Security Project #14	Execution	6/30/2014	1/15/2015	1/15/2015	3/6/2015		0%		0%
116-01	Collage Replacement	Execution	2/6/2014	9/22/2014	12/9/2014	1/2/2015	4	-34%	2	-32%
121-01	2013/2014 Network Refresh	Execution	5/14/2014	10/17/2014	10/17/2014	10/17/2014		0%		14%
122-01	Infoblox DNS/DHCP	Execution	5/21/2014	11/5/2014	11/5/2014	11/5/2014		0%		25%
128-0x	Capital Efficiencies and Enhancements - 2014	Execution	1/1/2014	12/31/2014	12/31/2014	12/31/2014		0%		3%
128-04	Reactive Test Forms Revision	Execution	5/19/2014	9/26/2014	9/26/2014	10/31/2014		0%	NA	See #128-01
130-01	Electronic Crisis Communications Enhancements	Execution	6/19/2014	12/12/2014	12/8/2014	1/16/2015		2%		5%
131-01	Email Gateway Refresh	Execution	7/23/2014	9/17/2014	9/17/2014	9/17/2014		0%		12%
135-01	Common Infrastructure - 2014	Execution	1/1/2014	12/31/2014	12/31/2014	12/31/2014		0%		62%
137-01	EIS Reporting and Control Systems Upgrade	Execution	8/13/2014	1/15/2015	1/15/2015	1/28/2015		0%		1%
99914	Minor Cap - 2014	Execution	1/1/2014	12/31/2014	12/31/2014	12/31/2014	NA	0%		28%
2014 PC	Program Control - 2014	Execution	1/1/2014	12/31/2014	12/31/2014	12/31/2014	NA	0%		8%
NPRR467	Balancing Account Resettlement Due to DAM Resettlement	Execution	7/1/2014	12/6/2014	12/6/2014	4/8/2015		0%	NA	See #10052
NPRR485	Clarification for Fuel Adder Provisions	Execution	10/23/2013	9/30/2014	9/30/2014	10/31/2014		0%	NA	See #128-01
NPRR571	ERS Weather-Sensitive Loads Requirements	Execution	4/8/2014	9/30/2014	9/30/2014	10/31/2014		0%	NA	See #128-01
NPRR580	Establishment of a Rolling CRR Balancing Account Fund	Execution	7/1/2014	12/6/2014	12/6/2014	4/8/2015		0%	NA	See #10052
NPRR586	Align Credit Lock for CRR Auctions with Transaction Submission Deadline	Execution	7/2/2014	9/26/2014	9/22/2014	10/28/2014		4%		6%
SCR774	Enhancement to Outage Scheduler and Reports	Execution	2/26/2014	9/26/2014	9/26/2014	10/31/2014		0%	NA	See #128-01



Project Number	Projects in Stabilization (Count = 16)	Phase	Baseline Execution Phase Start	Baseline Go-Live Target	Actual Go-Live Date	Scheduled Execution Phase Finish	Schedule Impact					
NPRR240	Proxy Energy Offer Curve	Execution	1/8/2014	2/7/2014	2/7/2014	9/26/2014		0%	NA	See #117-01		
NPRR491	Updated Distribution Generation and Demand Response Information for ERCOT	Execution	2/26/2014	8/1/2014	8/1/2014	8/31/2014		0%	NA	See #128-01		
NPRR532	Performance Measurement and Verification and Telemetry Requirements for Load Resources Providing Non-Spin	Execution	1/8/2014	6/1/2014	6/1/2014	9/26/2014		0%	NA	See #117-01		
NPRR555	Load Resource Participation in Security-Constrained Economic Dispatch	Execution	1/8/2014	6/1/2014	6/1/2014	9/26/2014		0%	NA	See #117-01		
NPRR564	Thirty-Minute Emergency Response Service (ERS) and Other ERS Services	Execution	1/8/2014	4/27/2014	4/18/2014	9/26/2014		8%	NA	See #117-01		
NPRR568	Real-Time Reserve Price Adder Based on Operating Reserve Demand Curve	Execution	1/8/2014	6/1/2014	6/1/2014	9/26/2014		0%	NA	See #117-01		
SCR756	MarkeTrak Enhancements - Remaining SCR756 Items	Execution	2/5/2014	8/17/2014	8/17/2014	9/19/2014		0%		2%		
SCR769	CRRAH Digital Certificate New Role for Read Only Access	Execution	3/20/2014	8/1/2014	8/1/2014	9/10/2014		0%		15%		
047-01	CMSDK/MIR Replacement	Execution	4/24/2013	12/8/2013	4/15/2014	10/22/2014	2	-56%	2	-57%		
077-01	Contract Lifecycle Management	Execution	9/11/2013	5/5/2014	8/20/2014	10/8/2014	2	-45%		-1%		
083-01	Centralized Application Log Management	Execution	8/28/2013	5/7/2014	3/27/2014	8/27/2014		16%		0%		
107-01	IBM AIX Operating System Upgrades	Execution	1/29/2014	5/2/2014	5/2/2014	12/17/2014		0%		0%		
110-01	Taylor Control Room Upgrade	Execution	2/19/2014	7/7/2014	6/4/2014	11/5/2014		23%		14%		
117-01	2014 Market System Enhancements	Execution	1/8/2014	6/1/2014	6/1/2014	9/26/2014		0%	-5	-19%		
119-01	CREZ Voltage Control and Coordination	Execution	3/6/2014	4/18/2014	4/18/2014	10/1/2014		0%		41%		
132-01	Client Digital Certificate Upgrade	Execution	6/12/2014	8/17/2014	8/17/2014	9/17/2014		0%		4%		
Project Number	Projects On Hold (Count = 2)	Phase	Forecast Start Date	Baseline Phase Finish	Scheduled Go-Live Date	Scheduled Phase Finish	Schedule Impact		Budget Impact			
NPRR327	State Estimator Data Redaction Methodology	On Hold	12/5/2012	2/12/2013	TBD	TBD	3		3			
SCR772	New Extract for Five Minute Interval Settlement Data	On Hold	2/12/2014	4/19/2014	TBD	TBD	3		3			
	i			Å		<u>.</u>		<u> </u>	i			
			Baseline					hedule Status Total Variance				
Project Number	Projects Completed in the Current Year (Count =12)	Phase	Execution Phase Start	Baseline Go-Live Target	Actual Go-Live Date	Actual Execution Phase Finish	Sche	dule Status	То	tal Variance		
Number			Execution Phase	Baseline Go-Live Target			Sche	dule Status	То	tal Variance		
Number	(Count =12)		Execution Phase	Baseline Go-Live Target 3/26/2014			Sche	dule Status 10%	То			
Number PROJECT	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Projection of a WGR Group for GREDP and Base Point Deviation	ct Number	Execution Phase Start		Date	Phase Finish	Sche		To NA	17%		
Number PROJECT NPRR425	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Project Creation of a WGR Group for GREDP and Base Point Deviation Evaluation	ct Number Complete	Execution Phase Start	3/26/2014	Date 3/3/2014	7/31/2014	Sche	10%		17% 46%		
Number PROJECT NPRR425 NPRR509	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Project Creation of a WGR Group for GREDP and Base Point Deviation Evaluation Shortened RTM Settlement Timeline	ct Number Complete Complete	8/21/2013 12/11/2013	3/26/2014 2/23/2014	3/3/2014 2/23/2014	3/31/2014 2/23/2014	Sche	10% 0%	NA	17% 46% See #128-01		
PROJECT NPRR425 NPRR509 NPRR570	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Project Creation of a WGR Group for GREDP and Base Point Deviation Evaluation Shortened RTM Settlement Timeline Reduce RTM Settlement Timeline to Operating Day Plus Five Clarification of the RUC Resource Buy-Back Provision for Ancillary	ct Number Complete Complete Complete	8/21/2013 12/11/2013 2/16/2014	3/26/2014 2/23/2014 4/27/2014	3/3/2014 2/23/2014 4/18/2014	3/31/2014 2/23/2014 4/27/2014	Sche	10% 0% 12%	NA NA	17% 46% See #128-01 See #128-01		
Number PROJECT NPRR425 NPRR509 NPRR570 NPRR575	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Project Creation of a WGR Group for GREDP and Base Point Deviation Evaluation Shortened RTM Settlement Timeline Reduce RTM Settlement Timeline to Operating Day Plus Five Clarification of the RUC Resource Buy-Back Provision for Ancillary Services	ct Number Complete Complete Complete Complete	8/21/2013 12/11/2013 2/16/2014 12/10/2013	3/26/2014 2/23/2014 4/27/2014 1/7/2014	3/3/2014 2/23/2014 4/18/2014 1/7/2014	3/31/2014 2/23/2014 4/27/2014 1/31/2014	Sche	10% 0% 12% 0%	NA NA	17% 46% See #128-01 See #128-01 See #78-01		
Number PROJECT NPRR425 NPRR509 NPRR570 NPRR575 NOGRR105	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Project Creation of a WGR Group for GREDP and Base Point Deviation Evaluation Shortened RTM Settlement Timeline Reduce RTM Settlement Timeline to Operating Day Plus Five Clarification of the RUC Resource Buy-Back Provision for Ancillary Services Generation Resource Frequency Response Test Procedure	Complete Complete Complete Complete Complete Complete Complete	8/21/2013 12/11/2013 2/16/2014 12/10/2013 12/4/2013	3/26/2014 2/23/2014 4/27/2014 1/7/2014 2/7/2014	3/3/2014 2/23/2014 4/18/2014 1/7/2014 2/7/2014	3/31/2014 2/23/2014 4/27/2014 1/31/2014 3/26/2014	Sche	10% 0% 12% 0%	NA NA	17% 46% See #128-01 See #128-01 See #78-01 31%		
Number PROJECT NPRR425 NPRR509 NPRR570 NPRR575 NOGRR105 016-01	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Project Creation of a WGR Group for GREDP and Base Point Deviation Evaluation Shortened RTM Settlement Timeline Reduce RTM Settlement Timeline to Operating Day Plus Five Clarification of the RUC Resource Buy-Back Provision for Ancillary Services Generation Resource Frequency Response Test Procedure ADP-IDM Interface	Complete Complete Complete Complete Complete Complete Complete Complete	8/21/2013 12/11/2013 2/16/2014 12/10/2013 11/4/2013	3/26/2014 2/23/2014 4/27/2014 1/7/2014 2/7/2014 3/26/2014	3/3/2014 2/23/2014 4/18/2014 1/7/2014 2/7/2014 3/26/2014	3/31/2014 2/23/2014 4/27/2014 1/31/2014 3/26/2014 5/6/2014	Sche	10% 0% 12% 0% 0%	NA NA	17% 46% See #128-01 See #78-01 31% 23%		
Number PROJECT NPRR425 NPRR509 NPRR570 NPRR575 NOGRR105 016-01 101-01	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Project Creation of a WGR Group for GREDP and Base Point Deviation Evaluation Shortened RTM Settlement Timeline Reduce RTM Settlement Timeline to Operating Day Plus Five Clarification of the RUC Resource Buy-Back Provision for Ancillary Services Generation Resource Frequency Response Test Procedure ADP-IDM Interface Emergency Notification System Hardware Refresh	Complete Complete Complete Complete Complete Complete Complete Complete Complete	8/21/2013 12/11/2013 2/16/2014 12/10/2013 12/4/2013 11/6/2013 11/13/2013	3/26/2014 2/23/2014 4/27/2014 1/7/2014 2/7/2014 3/26/2014 1/24/2014	3/3/2014 2/23/2014 4/18/2014 1/7/2014 2/7/2014 3/26/2014 12/20/2013	3/31/2014 2/23/2014 4/27/2014 1/31/2014 3/26/2014 5/6/2014 1/24/2014	Sche	10% 0% 12% 0% 0% 0% 48%	NA NA	17% 46% See #128-01 See #128-01 See #78-01 31% 23% -2%		
Number PROJECT NPRR425 NPRR509 NPRR570 NPRR575 NOGRR105 016-01 101-01 108-01	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Project Creation of a WGR Group for GREDP and Base Point Deviation Evaluation Shortened RTM Settlement Timeline Reduce RTM Settlement Timeline to Operating Day Plus Five Clarification of the RUC Resource Buy-Back Provision for Ancillary Services Generation Resource Frequency Response Test Procedure ADP-IDM Interface Emergency Notification System Hardware Refresh Alstom Load Forecasting Upgrade	Complete	8/21/2013 12/11/2013 2/16/2014 12/10/2013 12/4/2013 11/6/2013 11/13/2013 11/20/2013	3/26/2014 2/23/2014 4/27/2014 1/7/2014 2/7/2014 3/26/2014 1/24/2014 4/23/2014	3/3/2014 2/23/2014 4/18/2014 1/7/2014 2/7/2014 3/26/2014 12/20/2013 4/16/2014	3/31/2014 2/23/2014 4/27/2014 1/31/2014 3/26/2014 5/6/2014 1/24/2014 5/14/2014	Sche	10% 0% 12% 0% 0% 0% 48% 48%	NA NA	17% 46% See #128-01 See #128-01 See #78-01 31% 23% -2% 4%		
Number PROJECT NPRR425 NPRR509 NPRR570 NPRR575 NOGRR105 016-01 101-01 108-01 113-01	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Project Creation of a WGR Group for GREDP and Base Point Deviation Evaluation Shortened RTM Settlement Timeline Reduce RTM Settlement Timeline to Operating Day Plus Five Clarification of the RUC Resource Buy-Back Provision for Ancillary Services Generation Resource Frequency Response Test Procedure ADP-IDM Interface Emergency Notification System Hardware Refresh Alstom Load Forecasting Upgrade Dev Hardware Refresh and Virtualization Expansion	Complete	8/21/2013 12/11/2013 2/16/2014 12/10/2013 11/6/2013 11/6/2013 11/13/2013 11/13/2013	3/26/2014 2/23/2014 4/27/2014 1/7/2014 2/7/2014 3/26/2014 1/24/2014 4/23/2014 1/24/2014	3/3/2014 2/23/2014 4/18/2014 1/7/2014 2/7/2014 3/26/2014 12/20/2013 4/16/2014 1/9/2014	3/31/2014 2/23/2014 4/27/2014 1/31/2014 3/26/2014 5/6/2014 1/24/2014 5/14/2014 2/28/2014	Sche	10% 0% 12% 0% 0% 0% 48% 4% 20%	NA NA NA	17% 46% See #128-01 See #728-01 See #78-01 31% 23% -2% 4% -2%		
Number PROJECT NPRR425 NPRR509 NPRR570 NPRR575 NOGRR105 016-01 101-01 108-01 113-01 114-01	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Project Creation of a WGR Group for GREDP and Base Point Deviation Evaluation Shortened RTM Settlement Timeline Reduce RTM Settlement Timeline to Operating Day Plus Five Clarification of the RUC Resource Buy-Back Provision for Ancillary Services Generation Resource Frequency Response Test Procedure ADP-IDM Interface Emergency Notification System Hardware Refresh Alstom Load Forecasting Upgrade Dev Hardware Refresh and Virtualization Expansion Lawson Security	Complete	8/21/2013 12/11/2013 2/16/2014 12/10/2013 11/6/2013 11/6/2013 11/13/2013 11/13/2013 11/13/2013	3/26/2014 2/23/2014 4/27/2014 1/7/2014 2/7/2014 3/26/2014 1/24/2014 4/23/2014 1/24/2014 2/17/2014	3/3/2014 2/23/2014 4/18/2014 1/7/2014 2/7/2014 3/26/2014 12/20/2013 4/16/2014 1/9/2014 2/17/2014	3/31/2014 2/23/2014 4/27/2014 1/31/2014 3/26/2014 5/6/2014 1/24/2014 5/14/2014 2/28/2014 3/5/2014	Sche	10% 0% 12% 0% 0% 0% 48% 4% 20% 0%	NA NA NA	17% 46% See #128-01 See #78-01 31% -2% -2% -36%		
Number PROJECT NPRR425 NPRR509 NPRR570 NPRR575 NOGRR105 016-01 101-01 108-01 113-01 114-01 118-01	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Project Creation of a WGR Group for GREDP and Base Point Deviation Evaluation Shortened RTM Settlement Timeline Reduce RTM Settlement Timeline to Operating Day Plus Five Clarification of the RUC Resource Buy-Back Provision for Ancillary Services Generation Resource Frequency Response Test Procedure ADP-IDM Interface Emergency Notification System Hardware Refresh Alstom Load Forecasting Upgrade Dev Hardware Refresh and Virtualization Expansion Lawson Security Mitigation Plan RTCA Enhancements	Complete	8/21/2013 12/11/2013 2/16/2014 12/10/2013 12/4/2013 11/6/2013 11/13/2013 11/13/2013 11/13/2013 11/20/2014	3/26/2014 2/23/2014 4/27/2014 1/7/2014 2/7/2014 3/26/2014 1/24/2014 4/23/2014 1/24/2014 2/17/2014 4/18/2014	3/3/2014 2/23/2014 4/18/2014 1/7/2014 2/7/2014 3/26/2014 12/20/2013 4/16/2014 1/9/2014 2/17/2014 4/17/2014	3/31/2014 2/23/2014 4/27/2014 1/31/2014 3/26/2014 5/6/2014 5/14/2014 2/28/2014 3/5/2014 5/8/2014	Sche	10% 0% 12% 0% 0% 0% 48% 4% 20% 1%	NA NA NA	17% 46% See #128-01 See #128-01 31% 23% -2% 4% -2% -36% 0%		
Number PROJECT NPRR425 NPRR509 NPRR570 NPRR575 NOGRR105 016-01 101-01 108-01 113-01 114-01 118-01	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Project Creation of a WGR Group for GREDP and Base Point Deviation Evaluation Shortened RTM Settlement Timeline Reduce RTM Settlement Timeline to Operating Day Plus Five Clarification of the RUC Resource Buy-Back Provision for Ancillary Services Generation Resource Frequency Response Test Procedure ADP-IDM Interface Emergency Notification System Hardware Refresh Alstom Load Forecasting Upgrade Dev Hardware Refresh and Virtualization Expansion Lawson Security Mitigation Plan RTCA Enhancements	Complete	8/21/2013 12/11/2013 2/16/2014 12/10/2013 12/4/2013 11/6/2013 11/13/2013 11/13/2013 11/13/2013 11/20/2014	3/26/2014 2/23/2014 4/27/2014 1/7/2014 2/7/2014 3/26/2014 1/24/2014 4/23/2014 1/24/2014 2/17/2014 4/18/2014	3/3/2014 2/23/2014 4/18/2014 1/7/2014 2/7/2014 3/26/2014 12/20/2013 4/16/2014 1/9/2014 2/17/2014 4/17/2014	3/31/2014 2/23/2014 4/27/2014 1/31/2014 3/26/2014 5/6/2014 5/14/2014 2/28/2014 3/5/2014 5/8/2014	Sche	10% 0% 12% 0% 0% 0% 48% 4% 20% 1%	NA NA NA	17% 46% See #128-01 See #128-01 31% 23% -2% 4% -2% -36% 0%		
Number PROJECT NPRR425 NPRR509 NPRR570 NPRR575 NOGRR105 016-01 101-01 108-01 113-01 114-01 118-01	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Project Creation of a WGR Group for GREDP and Base Point Deviation Evaluation Shortened RTM Settlement Timeline Reduce RTM Settlement Timeline to Operating Day Plus Five Clarification of the RUC Resource Buy-Back Provision for Ancillary Services Generation Resource Frequency Response Test Procedure ADP-IDM Interface Emergency Notification System Hardware Refresh Alstom Load Forecasting Upgrade Dev Hardware Refresh and Virtualization Expansion Lawson Security Mitigation Plan RTCA Enhancements	Complete	8/21/2013 12/11/2013 2/16/2014 12/10/2013 12/4/2013 11/6/2013 11/13/2013 11/13/2013 11/13/2013 11/20/2014	3/26/2014 2/23/2014 4/27/2014 1/7/2014 2/7/2014 3/26/2014 1/24/2014 4/23/2014 1/24/2014 2/17/2014 4/18/2014 7/16/2014	3/3/2014 2/23/2014 4/18/2014 1/7/2014 2/7/2014 3/26/2014 12/20/2013 4/16/2014 1/9/2014 2/17/2014 4/17/2014 6/10/2014	3/31/2014 2/23/2014 4/27/2014 1/31/2014 3/26/2014 5/6/2014 1/24/2014 5/14/2014 2/28/2014 3/5/2014 5/8/2014 7/2/2014		10% 0% 12% 0% 0% 0% 48% 4% 20% 0% 1% 32%	NA NA NA	17% 46% See #128-01 See #128-01 31% 23% -2% 4% -2% -36% 0%		
Number PROJECT NPRR425 NPRR509 NPRR570 NPRR575 NOGRR105 016-01 101-01 108-01 113-01 114-01 118-01	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Project Creation of a WGR Group for GREDP and Base Point Deviation Evaluation Shortened RTM Settlement Timeline Reduce RTM Settlement Timeline to Operating Day Plus Five Clarification of the RUC Resource Buy-Back Provision for Ancillary Services Generation Resource Frequency Response Test Procedure ADP-IDM Interface Emergency Notification System Hardware Refresh Alstom Load Forecasting Upgrade Dev Hardware Refresh and Virtualization Expansion Lawson Security Mitigation Plan RTCA Enhancements	Complete	8/21/2013 12/11/2013 2/16/2014 12/10/2013 12/4/2013 11/6/2013 11/13/2013 11/13/2013 11/13/2013 11/20/2014	3/26/2014 2/23/2014 4/27/2014 1/7/2014 2/7/2014 3/26/2014 1/24/2014 4/23/2014 1/24/2014 2/17/2014 4/18/2014 7/16/2014 7/16/2014 1/24/2014 1/24/2014 1/24/2014 1/24/2014 1/24/2014 1/24/2014 1/26/2014 1/26/2014 1/26/2014	3/3/2014 2/23/2014 4/18/2014 1/7/2014 2/7/2014 3/26/2014 12/20/2013 4/16/2014 1/9/2014 2/17/2014 4/17/2014 6/10/2014	3/31/2014 2/23/2014 4/27/2014 1/31/2014 3/26/2014 5/6/2014 1/24/2014 5/14/2014 2/28/2014 5/8/2014 5/8/2014 5/8/2014	and/or tin	10% 0% 12% 0% 0% 0% 48% 4% 20% 0% 1% 32%	NA NA NA	17% 46% See #128-01 See #128-01 31% 23% -2% 4% -2% -36% 0%		
Number PROJECT NPRR425 NPRR509 NPRR570 NPRR575 NOGRR105 016-01 101-01 108-01 113-01 114-01 118-01	(Count =12) S COMPLETED IN 2014 (Count = 12) Sorted by Project Creation of a WGR Group for GREDP and Base Point Deviation Evaluation Shortened RTM Settlement Timeline Reduce RTM Settlement Timeline to Operating Day Plus Five Clarification of the RUC Resource Buy-Back Provision for Ancillary Services Generation Resource Frequency Response Test Procedure ADP-IDM Interface Emergency Notification System Hardware Refresh Alstom Load Forecasting Upgrade Dev Hardware Refresh and Virtualization Expansion Lawson Security Mitigation Plan RTCA Enhancements	Complete	8/21/2013 12/11/2013 2/16/2014 12/10/2013 12/4/2013 11/6/2013 11/13/2013 11/13/2013 11/13/2013 11/20/2014	3/26/2014 2/23/2014 4/27/2014 1/7/2014 2/7/2014 3/26/2014 1/24/2014 4/23/2014 2/17/2014 4/18/2014 2/17/2014 5/16/2014 7/16/2014 Footnotes 1 - Current phase took longe 2 - Current phase requiring in	3/3/2014 2/23/2014 4/18/2014 1/7/2014 2/7/2014 3/26/2014 12/20/2013 4/16/2014 1/9/2014 2/17/2014 4/17/2014 6/10/2014	3/31/2014 2/23/2014 4/27/2014 1/31/2014 3/26/2014 5/6/2014 1/24/2014 5/14/2014 2/28/2014 5/8/2014 5/8/2014 5/8/2014	and/or tin	10% 0% 12% 0% 0% 0% 48% 4% 20% 0% 1% 32%	NA NA NA	17% 46% See #128-01 See #128-01 31% 23% -2% 4% -2% -36% 0%		
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Project Number	Projects Not Yet Started (Count = 17)	Phase	Forecast Start Date
PROJECT			
NPRR495	Changes to Ancillary Services Capacity Monitor	Not Started	Sep-2014
NPRR556	Resource Adequacy During Transmission Equipment Outage	Not Started	Sep-2014
NPRR589	Ancillary Service Offers in the Supplemental Ancillary Services Market	Not Started	Sep-2014
OBD	Setting the Shadow Price Caps and Power Balance Penalties in Security-Constrained Economic Dispatch	Not Started	Sep-2014
TBD	Replace N2N System	Not Started	Sep-2014
TBD	Postgres Evaluation and Pilot	Not Started	Sep-2014
TBD	Browser Upgrade	Not Started	Sep-2014
TBD	EDW Platform Transition Phase 2	Not Started	Sep-2014
NPRR272	Definition and Participation of Quick Start Generation Resources	Not Started	Oct-2014
NPRR519	Exemption of ERS-Only QSEs from Collateral and Capitalization Requirements	Not Started	Oct-2014
NPRR524	Resource Limits in Providing Ancillary Service	Not Started	Oct-2014
NPRR573	Alignment of PRC Calculation	Not Started	Oct-2014
NPRR581	Add Fast Responding Regulation Service as a Subset of Regulation Service	Oct-2014	
NPRR588	Clarifications for PV Generation Resources	Not Started	Oct-2014
NPRR615	PVGR Forecasting	Not Started	Oct-2014
SCR771	ERCOT System Change Allowing Independent Master QSE to Represent Split Generation Resources	Not Started	Oct-2014
TBD	CREZ Voltage Control and Coordination - Phase 2	Not Started	Oct-2014

