

ERCOT Monthly Operational Overview (November 2014)

ERCOT Public December 15, 2014

Grid Planning & Operations

Summary – November 2014

Operations

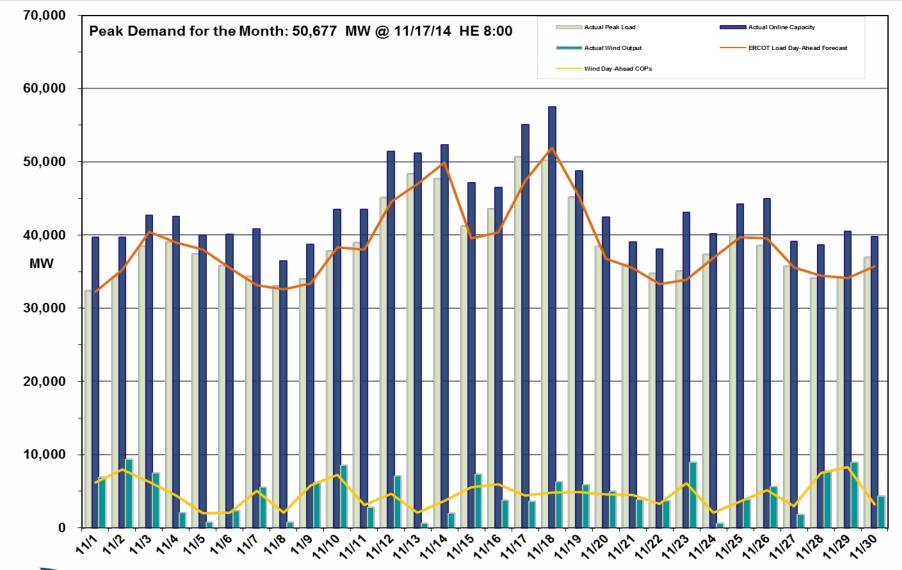
- The peak demand of 50,677 MW on November 17th was greater than the mid-term forecast peak of 47,357 MW, as well as greater than the November 2013 actual peak demand of 46,931 MW. The instantaneous peak load on November 17th was 51,186 MW.
- Day-ahead load forecast error for November was 2.71%
- ERCOT issued four notifications
 - One OCN due to cold weather (11/10)
 - Two advisories for cold weather (11/12 and 11/14)
 - One watch for cold weather (11/16)

Planning Activities

- 239 active generation interconnection requests totaling over 62,800 MW, including 24,100 MW of wind generation as of November 30, 2014. Three additional requests, yet 300 fewer MW from October 31, 2014.
- 11,703 MW wind capacity in commercial operations on November 30, 2014.

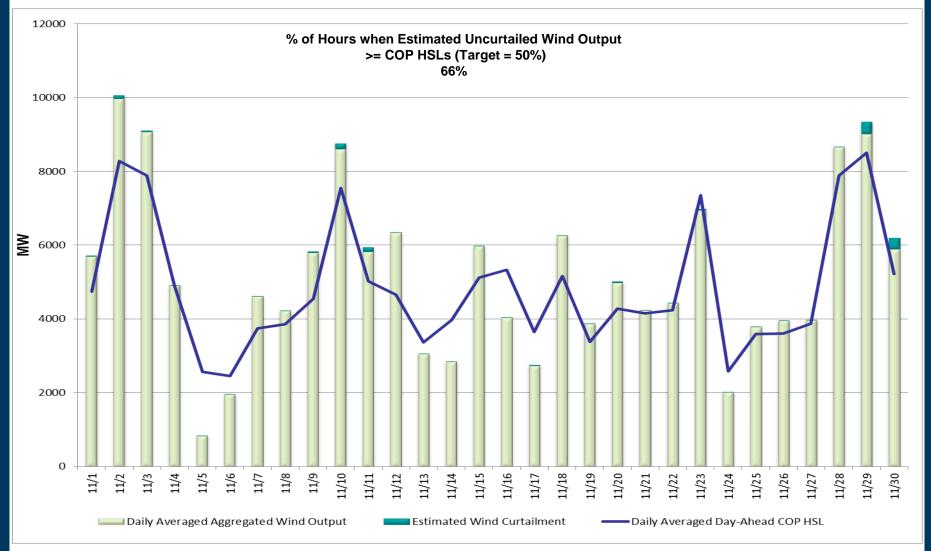


Daily Peak Demand: Hourly Average Actual vs. Forecast, Wind Day-Ahead COPs & On-line Capacity at Peak – November 2014





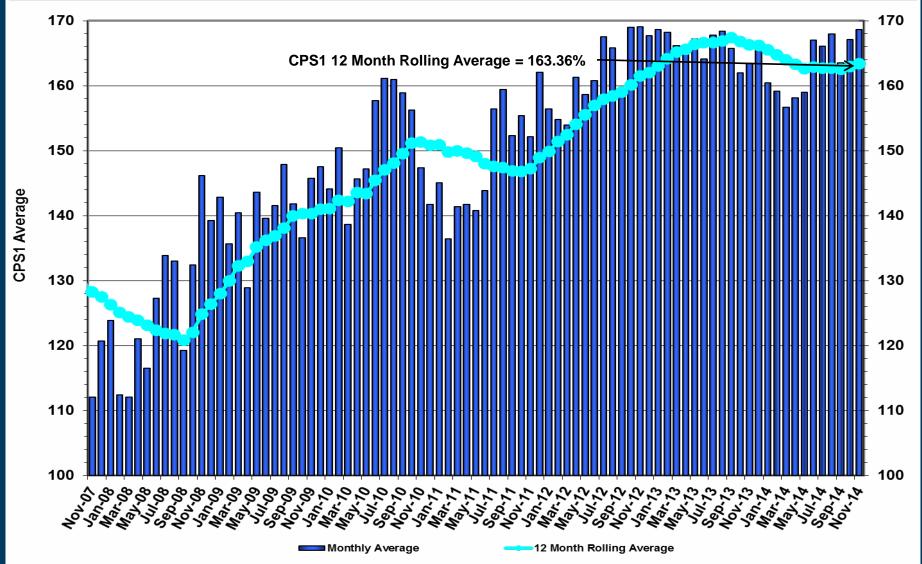
Actual Wind Output plus Curtailments vs. Wind Day-Ahead COPs for All Hours – November 2014





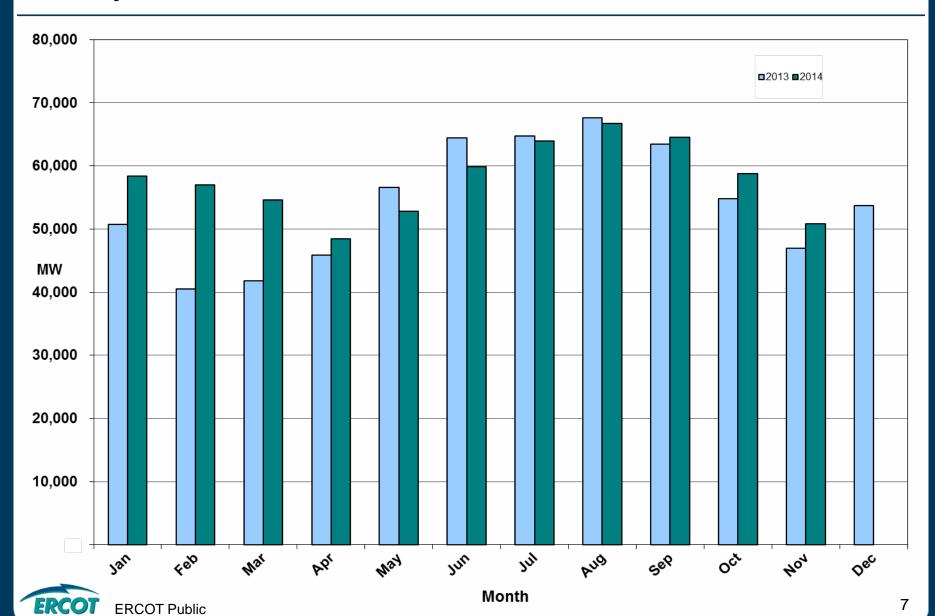
Note: QSEs must use the AWST 50% probability of exceedance forecast as the HSL in their COPs

ERCOT's CPS1 Monthly Performance – November 2014

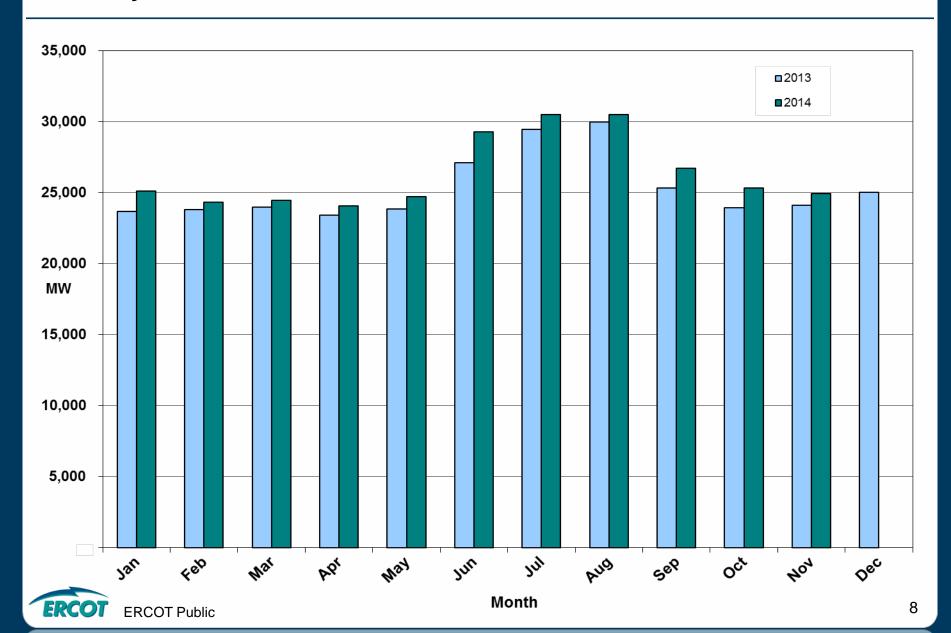




Monthly Peak Actual Demand – November 2014



Monthly Minimum Actual Demand – November 2014



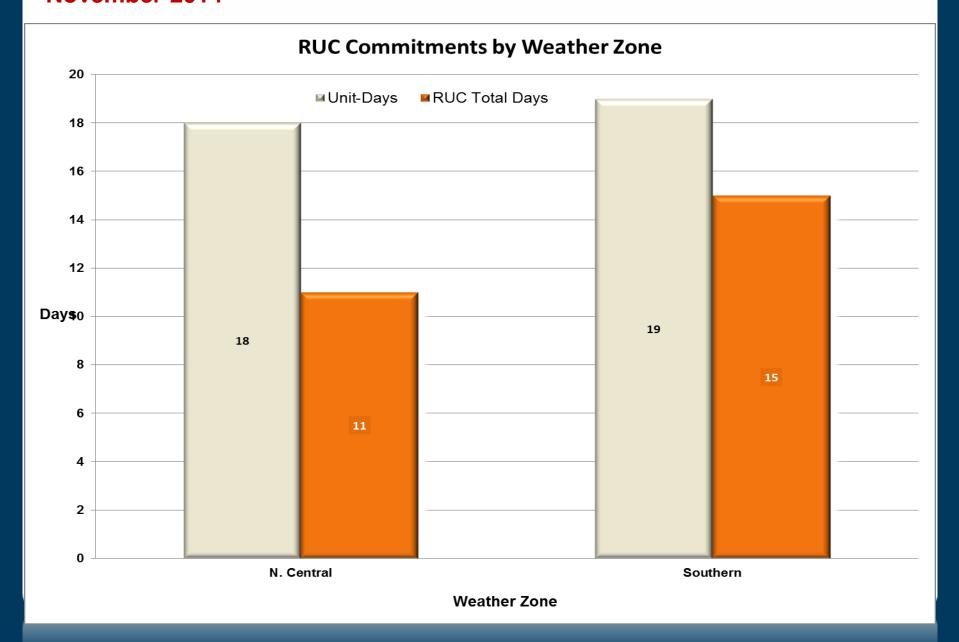
Day-Ahead Load Forecast Performance – November 2014

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	Novemb MA	
Average Annual MAPE	2.83	3.02	2.86	2.89	2.7	71
Lowest Monthly MAPE	1.63	2.51	2.07	2.35	Lowest Daily MAPE	0.83 Nov – 8
Highest Monthly MAPE	3.55	3.49	3.50	3.70	Highest Daily MAPE	7.35 Nov – 16



Reliability Unit Commitment (RUC) Capacity by Weather Zone November 2014



Generic Transmission Limits (GTLs) – November 2014

GTLs	Nov 13 Days GTLs	Sep 14 Days GTLs	Oct 14 Days GTLs	Nov 14 Days GTLs	Last 12 Months Total Days (Dec13 - Nov14)
North – Houston	0	0	0	0	0
West - North	0	0	0	0	10
Valley Import	0	0	2	0	8
SOP110	1	0	0	1	11

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.

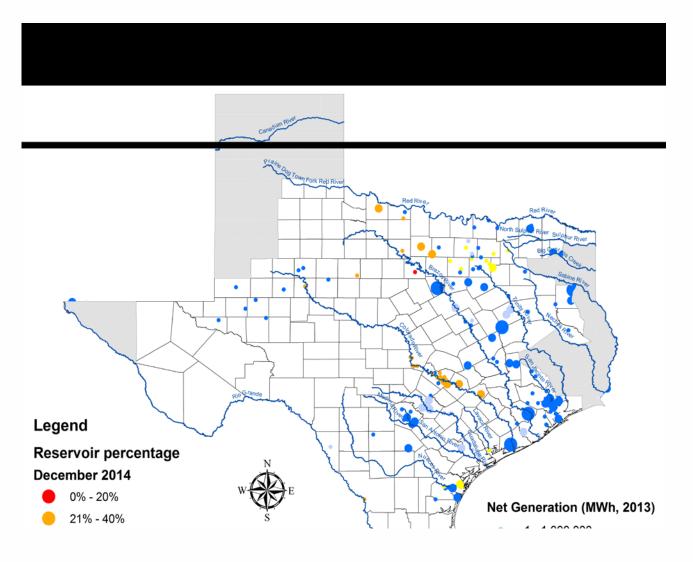


Advisories and Watches - November 2014

- Single OCN due to projected cold weather front
 - Issued on 11/10
- Two advisories due to cold weather
 - Issued once 11/12 and 11/14
- One watch due to cold weather
 - Issued on 11/16



Lake Levels Update – December 1, 2014



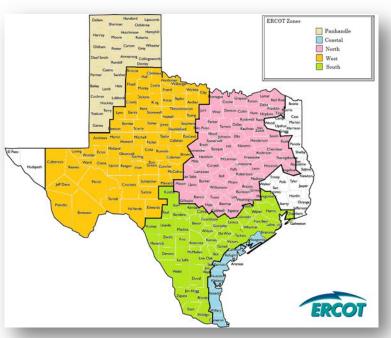


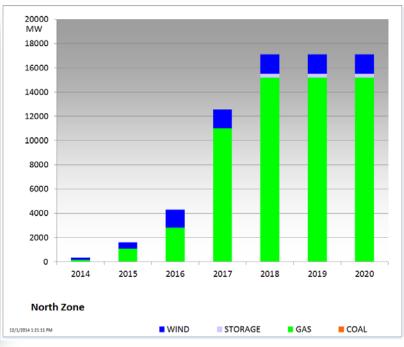
Planning Summary – November 2014

- ERCOT is currently tracking 239 active generation interconnection requests totaling over 62,800 MW. This includes over 24,100 MW of wind generation.
- ERCOT is currently reviewing proposed transmission improvements with a total cost of \$495.1 Million.
- Transmission Projects endorsed in 2014 total \$788.5 Million.
- All projects (in engineering, routing, licensing, and construction) total approximately \$5.54 Billion.
- Transmission Projects energized in 2014 total about \$693.7 Million.



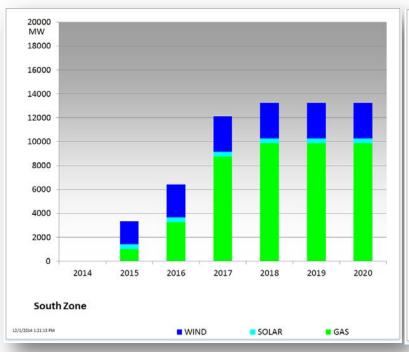
Cumulative Installed MW Capacity of Interconnection Requests by Zone – **November 2014**

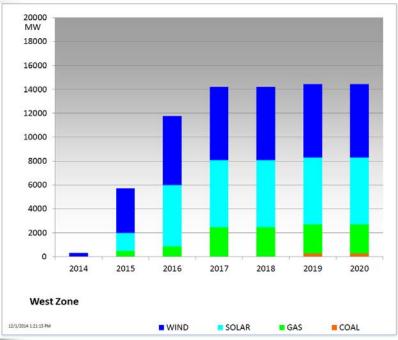






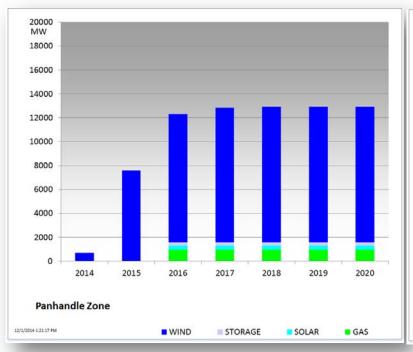
Cumulative Installed MW Capacity of Interconnection Requests by Zone – **November 2014**

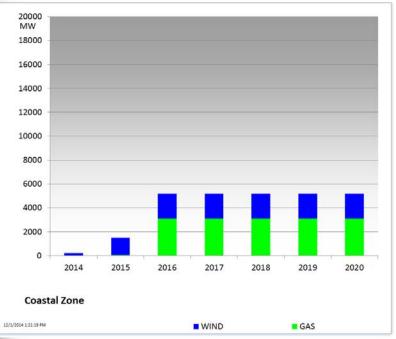






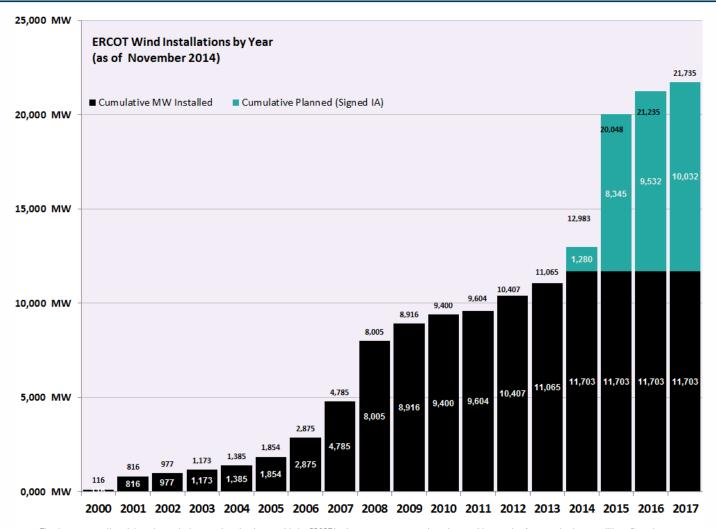
Cumulative Installed MW Capacity of Interconnection Requests by Zone – **November 2014**







Wind Generation - November 2014

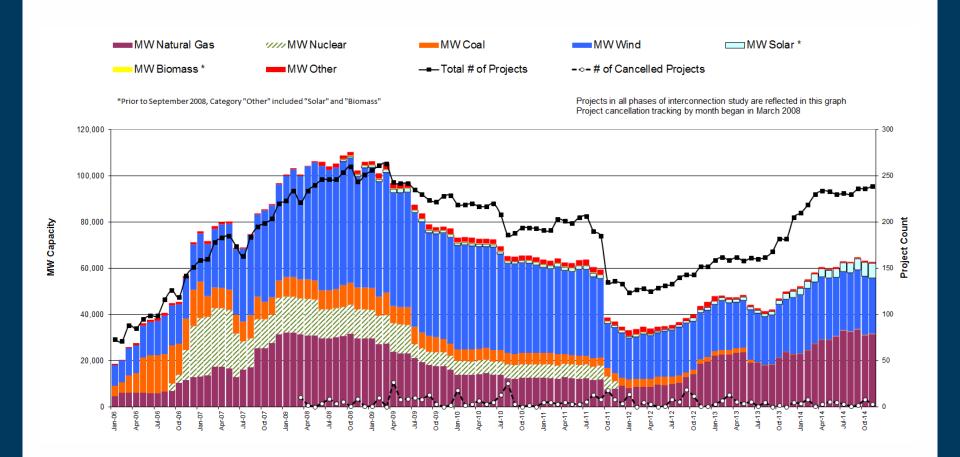


The data presented here is based upon the latest registration data provided to ERCOT by the resource owners and can change without notice. Any capacity changes will be reflected in current and subsequent years' totals. Scheduling delays will also be reflected in the planned projects as that information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

This chart reflects planned units in the calendar year of submission rather than installations by peak of year shown.

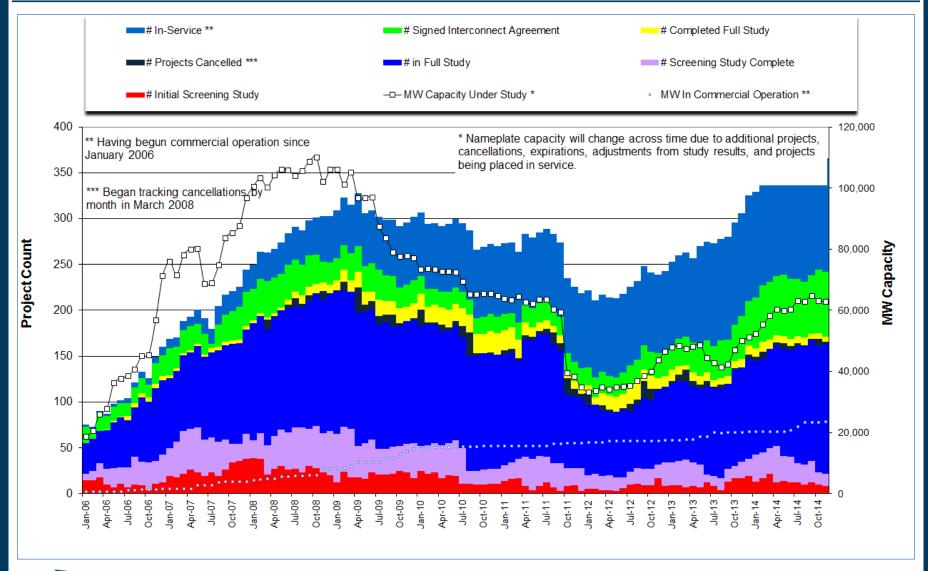


Generation Interconnection Activity by Fuel – November 2014





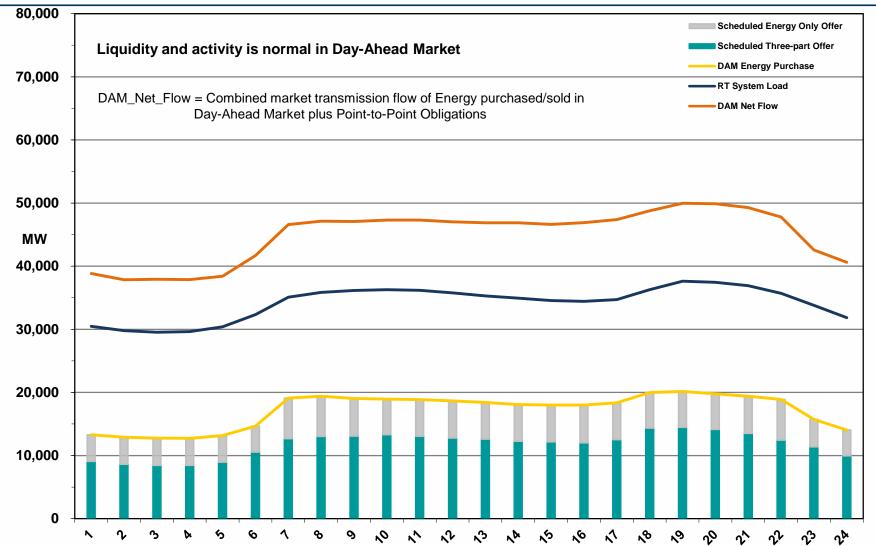
Generation Interconnection Activity by Project Phase – November 2014





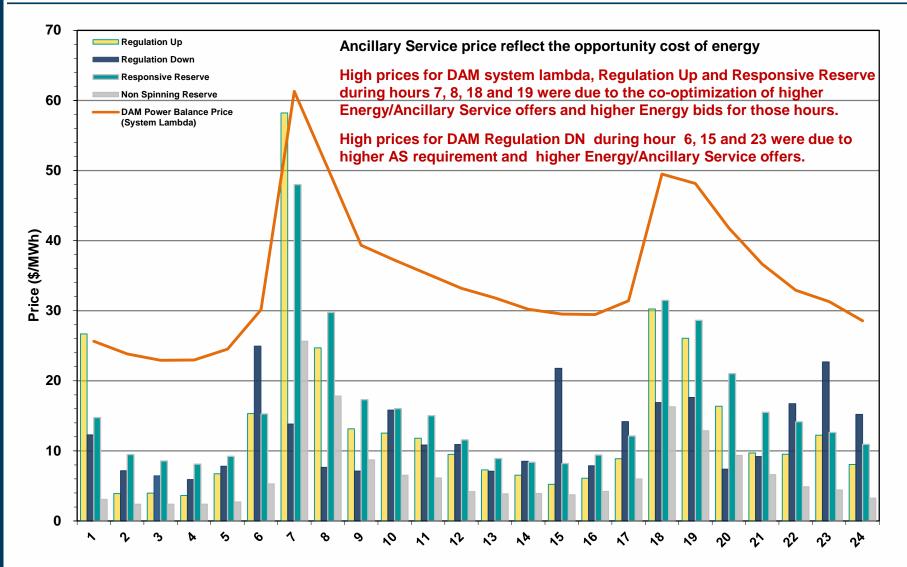
Market Operations

Day-Ahead Schedule (Hourly Average) – November 2014



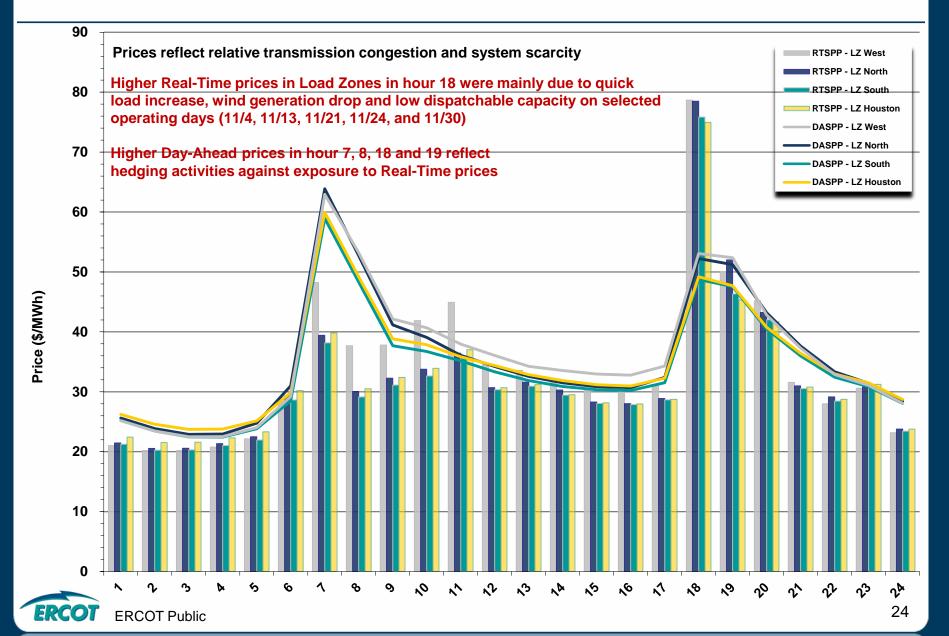


Day-Ahead Electricity And Ancillary Service Hourly Average Prices – November 2014

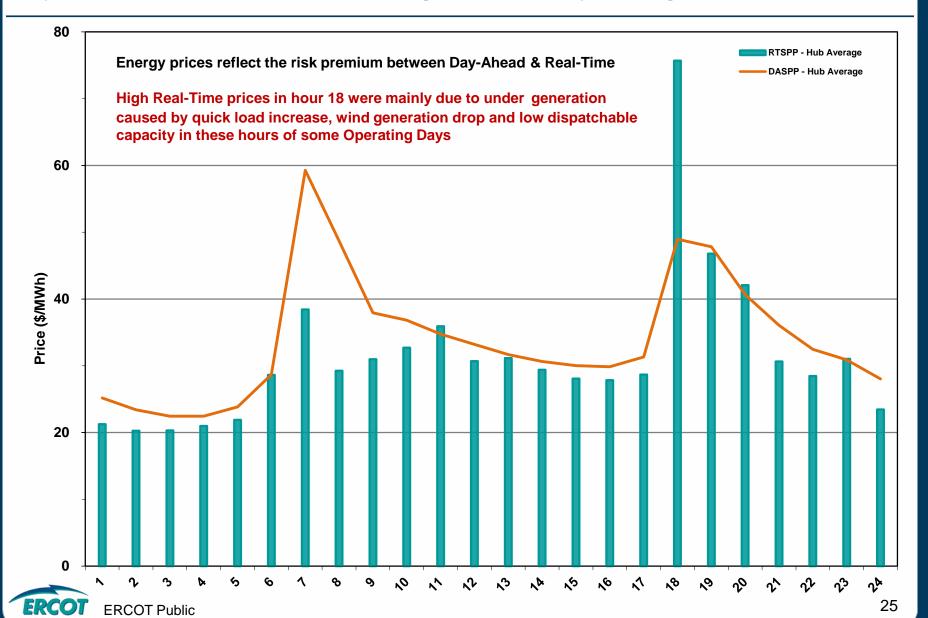




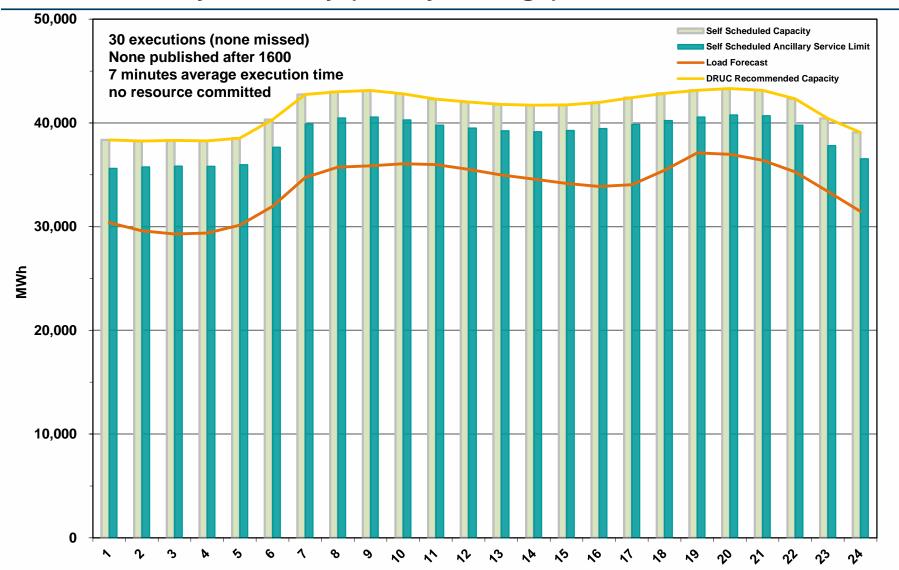
Day-Ahead Vs Real-Time Load Zone SPP (Hourly Average) – November 2014



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

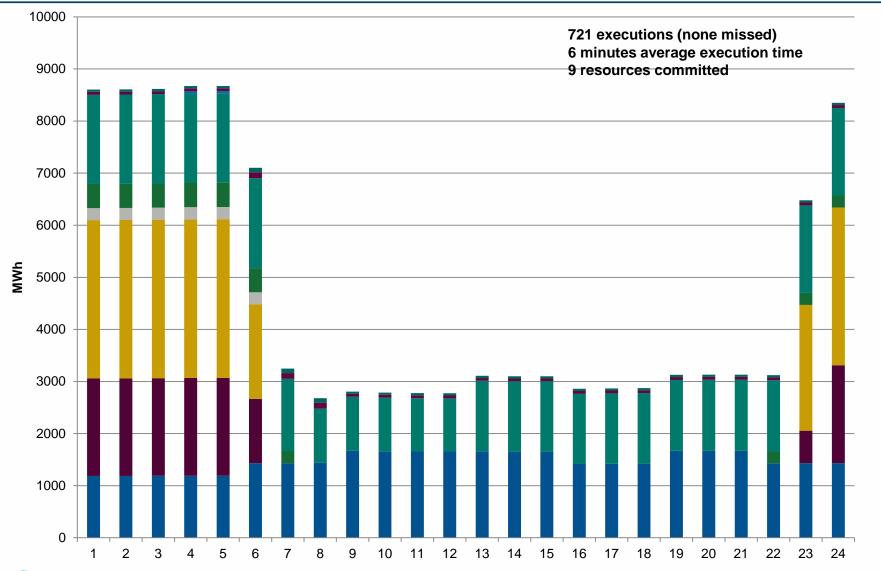


DRUC Monthly Summary (Hourly Average) – November 2014





HRUC Monthly Summary – November 2014

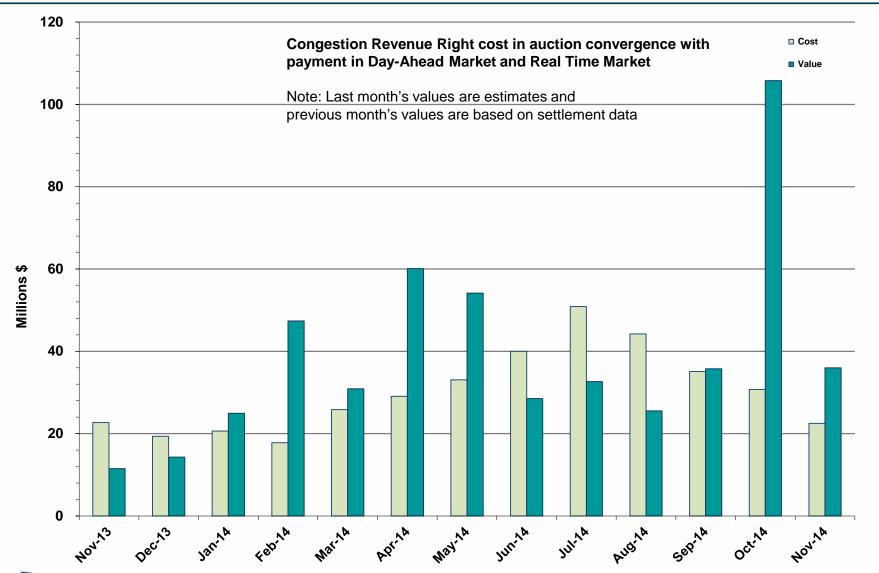




Non-Spinning Reserve Service Deployment – November 2014

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

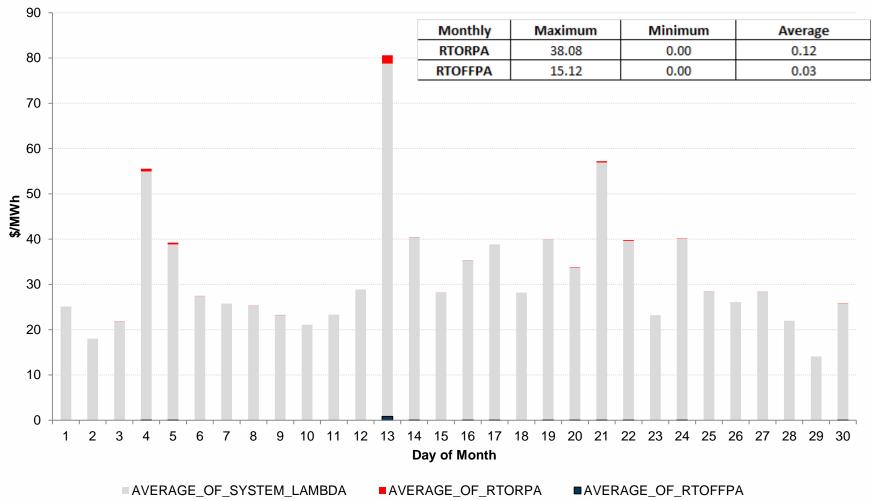
CRR Price Convergence – November 2014





ORDC Price Adder (Daily Average) - November 2014

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





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ERS Procurement for October 2014 – January 2015

	BH1	BH2	ВН3	NBH
ERS-10 MW Procured	611.405	590.725	592.660	545.965
ERS-30 MW Procured	280.875	256.827	256.045	211.690
Total MW Procured	892.280	847.552	848.705	757.655
Clearing Price	\$14.26	\$3.00	\$14.94	\$3.30

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

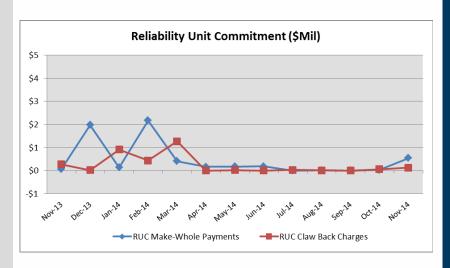
HE 1700 through 2000, Monday thru Friday except ERCOT Holidays

All other hours



Reliability Services – November 2014

Reliability Unit Commitment (RUC)	\$ in Millions
RUC Make-Whole Payments	(\$0.54)
RUC Clawback Charges	\$0.12
RUC Commitment Settlement	(\$0.42)
RUC Capacity Short Charges	\$0.54
RUC Make-Whole Uplift	\$0.00
RUC Commitment Cost Allocation	\$0.54
RUC Decommitment Payments	\$0.00



RUC Make-Whole Payments increased in November. RUC Clawback Charges were \$0.12M.

There was a credit of \$0.12M allocated directly to load in November 2014, compared to:

- \$0.06 credit in October 2014
- \$0.27M credit in November 2013



Capacity Services – November 2014

Capacity Services	\$ in Millions
Regulation Up Service	\$5.24
Regulation Down Service	\$4.23
Responsive Reserve Service	\$28.08
Non-Spinning Reserve Service	\$7.13
Black Start Service	\$0.60
Voltage Services - Reactive Power	\$0.00
Voltage Services - Lost Opportunity	\$0.00
Total Charges	\$45.28

Capacity Services costs increased from last month and from November 2013.

November 2014 cost was \$45.28M, compared to:

- A charge of \$41.72M in October 2014
- A charge of \$26.26M in November 2013



Energy Settlement – November 2014

Day-Ahead Market Energy Settlement	\$ in Millions
Energy Purchases	\$460.08
Point to Point Obligation Purchases	\$30.90
RMR Day-Ahead Revenue	\$0.00
Energy Sales	(\$452.75)
Day-Ahead Congestion Rent	\$38.23
Day-Ahead Market Make-Whole Payments	(\$0.04)

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

Real-Time Market Energy Settlement	\$ in Millions
Energy Imbalance at a Resource Node	(\$466.05)
Energy Imbalance at a Load Zone	\$684.50
Energy Imbalance at a Hub	(\$198.47)
Real Time Congestion from Self Schedules	(\$0.16)
Block Load Transfers and DC Ties	(\$0.83)
Impact to Revenue Neutrality	\$18.99
Emergency Energy Payments	(\$0.18)
Base Point Deviation Charges	\$0.23
Real-Time Metered Generation (MWh in millions)	24.67



Congestion Revenue Rights (CRR) – November 2014

	\$ in Millions
Annual Auction	(\$17.04)
Monthly Auction	(\$5.47)
Total Auction Revenue	(\$22.51)
Day-Ahead CRR Settlement	(\$36.00)
Day-Ahead CRR Short-Charges	\$2.25
Day-Ahead CRR Short-Charges Refunded	(\$2.25)
Real-Time CRR Settlement	\$0.00
Real-Time CRR Short-Charges	\$0.00
Real-Time CRR Short-Charges Refunded	\$0.00
Total CRR Funding	(\$36.00)
Day-Ahead Point to Point Obligations Settlement	\$30.90
Real-Time Point to Point Obligation Settlement	(\$21.15)
Net Point to Point Obligation Settlement	\$9.75

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

Distribution of Balancing Account funds to load for November 2014 was \$2.27M, compared to:

- \$1.00M Credit in October 2014
- \$0.66M Credit in November 2013

Point to Point Obligations settled with a net charge of \$9.75M compared to a net payment of \$23.09M last month.



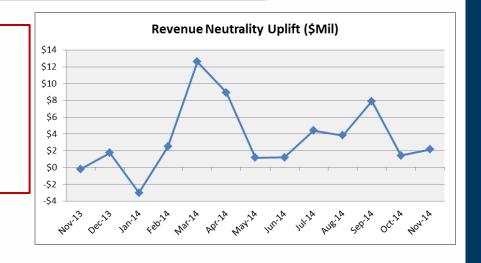
Revenue Neutrality – November 2014

Revenue Neutrality Settlement	
Real-Time Point to Point Obligation Settlement	
Real-Time Point to Point Options and Options with Refund Settlement	
Real-Time Energy Imbalance Settlement	
Real-Time Congestion from Self-Schedules Settlement	
DC Tie & Block Load Transfer Settlement	
Charge to Load	\$2.15

Revenue Neutrality charges to load increased compared to last month and to November 2013.

November 2014 was a charge of \$2.15M, compared to:

- \$1.42M charge in October 2014
- \$0.19M credit in November 2013





Real Time Ancillary Service Imbalance (ORDC) – November 2014

Real Time Ancillary Service Imbalance	\$ in Thousands
Real-Time AS Imbalance Payment Amount	(\$38.45)
Load Allocated AS Imbalance Revenue Neutrality Amount	\$38.44
Total Charges	\$38.44

Real-Time Ancillary Service Imbalance Settlements decreased from October 2014 to November 2014. Total payments for the month of November 2014 were \$38,449 compared to a payment of \$79,068 in October 2014.

13 of the 30 days in November 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 November 13th. The total Real Time Ancillary Service Imbalance payments on that day were \$16,851.66.



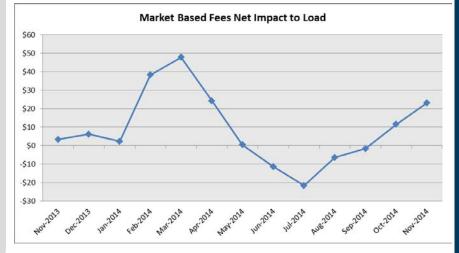
Net Allocation to Load – November 2014

Market-Based Allocation	\$ in Millions
CRR Auction Revenue Disbursement Settlement	(\$22.51)
Balancing Account Proceeds Settlement	(\$2.27)
Net Reliability Unit Commitment Settlement	\$0.42
Ancillary Services Settlement	\$45.28
Reliability Must Run Settlement (incl. RMR for Capacity)	\$0.00
Real-Time Revenue Neutrality Settlement	\$2.15
Emergency Energy Settlement	\$0.18
Base Point Deviation Settlement	(\$0.23)
ORDC Settlement	\$0.04
Total	\$23.06
Fee Allocation	
ERCOT Administrative Fee Settlement	\$11.50
Net Allocated to Load	\$34.56

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

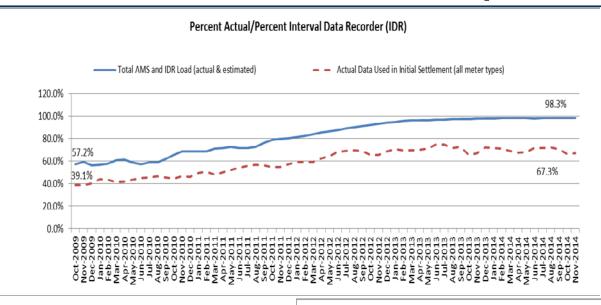
November 2014 was a charge of \$34.56M, compared to:

- A charge of \$24.26M in October 2014
- A charge of \$13.47M in November 2013



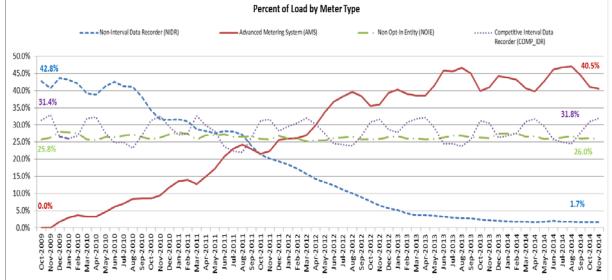


Advanced Meter Settlement Impacts – November 2014



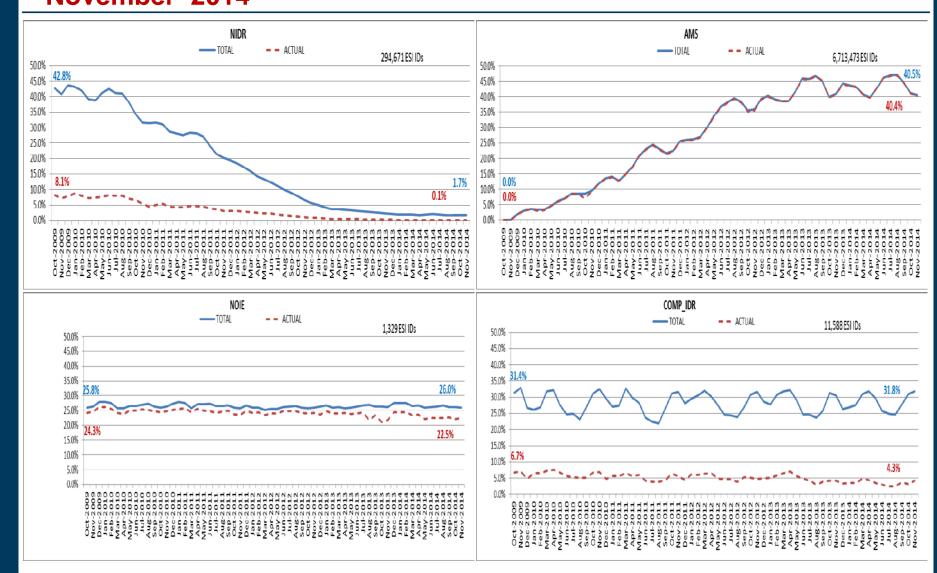
November 2014: At month end, settling 6.7M ESIIDs using Advanced Meter data.

November 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 – November 2014





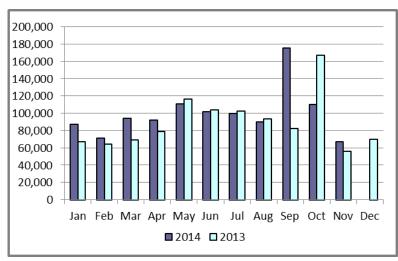
Retail Transaction Volumes – Summary – November 2014

	Year-To-Date Transactions R			ns Received
Transaction Type	November 2014	November 2013	November 2014	November 2013
Switches	1,098,474	1,000,166	67,080	55,957
Acquisition	0	0	0	0
Move - Ins	2,477,236	2,359,224	178,624	178,671
Move - Outs	1,235,437	1,256,148	89,578	93,977
Continuous Service Agreements (CSA)	587,117	554,280	43,550	50,347
Mass Transitions	5,614	0	0	0
Total	5,403,878	5,169,818	378,832	378,952

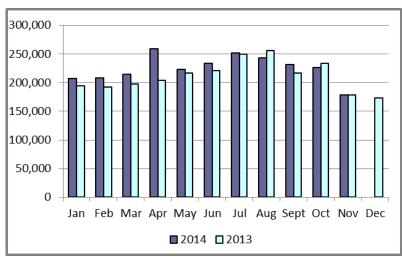


Retail Transaction Volumes – Summary – November 2014

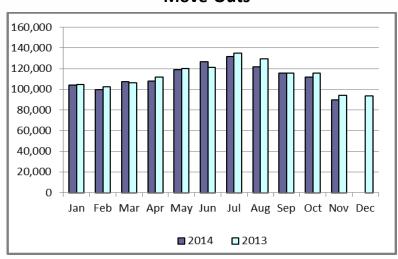
Switches/Acquisitions



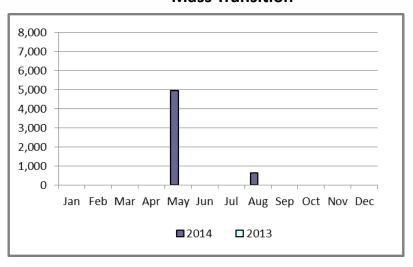
Move-Ins



Move-Outs

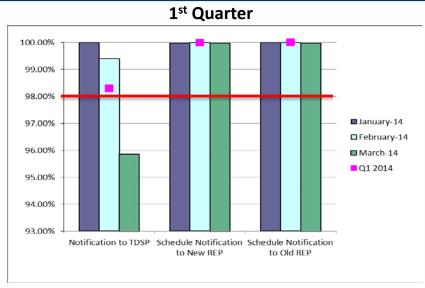


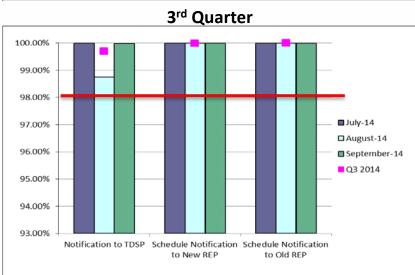
Mass Transition

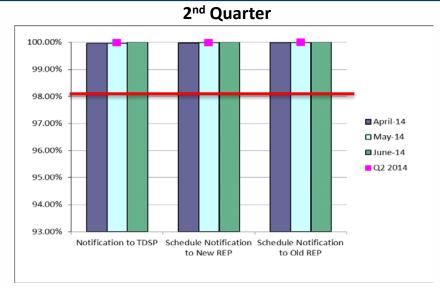


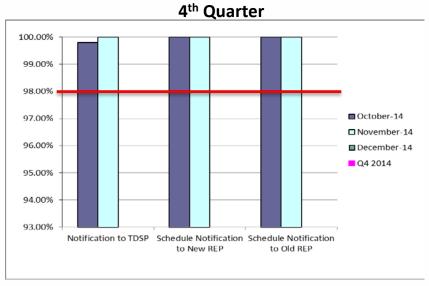


Retail Performance Measures – Switch – November 2014



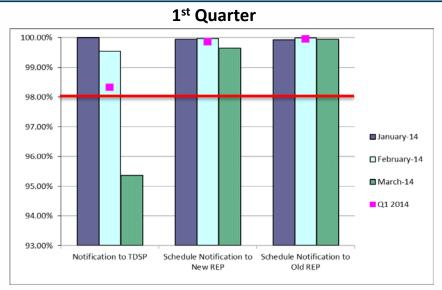


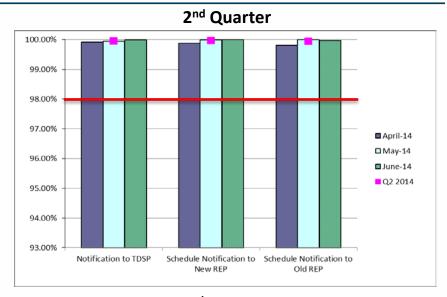


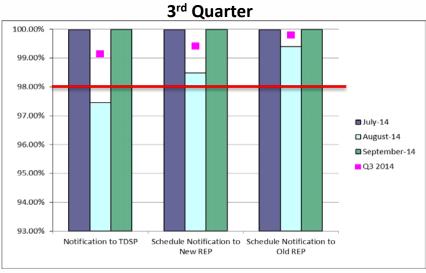


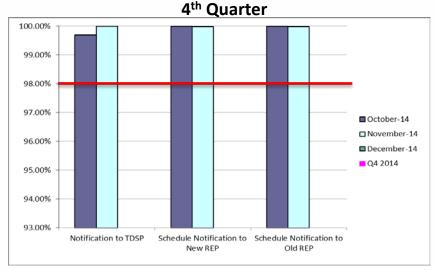


Retail Performance Measures (Same Day Move-In) - November 2014



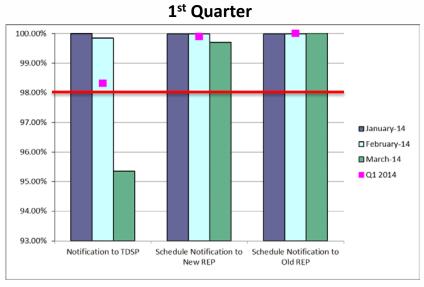


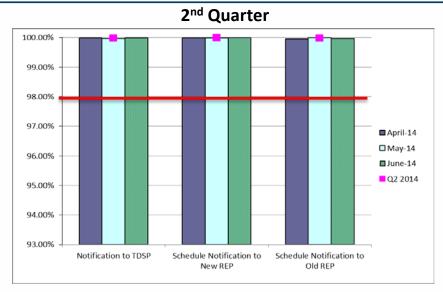


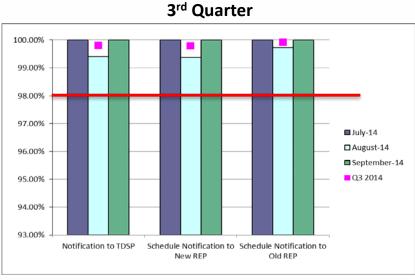


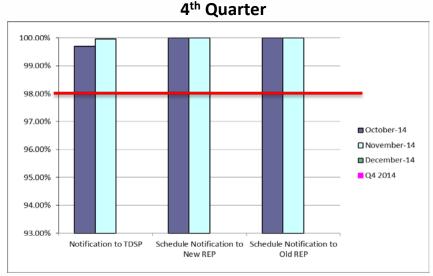


Retail Performance Measures (Standard Move-In) - November 2014











Projects Report

								_		
			2014 Project Fundin	g	\$ 2	6,000,000				
	Impact Metric Tolerances					14 Portfolio ding Estimate	10	tal Portfolio Demand		
					Spene	anig Estimate		Demand		
Unfavorable	e variances are represented as negative numbers within the	Projects In Flight	t/On Hold (Count = 55)		\$	21,284,214	\$	53,598,018		
report.					l		l			
- Green = N	No more than 4.9% unfavorable variance	Projects Not Yet	Started (Count = 4)		\$	35,000	\$	302,699		
- Yellow =	Unfavorable variance between 4.9% and 9.9%	Projects Comple	ted (Count = 33)		\$	4,885,331	\$	9,022,997		
- Red = Un	favorable variance more than 9.9%					.,000,001	ļ	3,022,337		
		Spending Reduct	tions Required to Maint	tain Capital Budg	\$	(204,545)		N/A		
		TOTAL			Ś	26,000,000	\$	62,923,714		
		TOTAL			7	20,000,000	~	02,323,714		
Project										
Number	Projects in Initiation Phase (Count = 8)									
153-01	Infrastructure Performance Management									
TBD	Move iTron LF Application to High Availability Environment									
155-01	Replace N2N System									
156-01	Symposium Call Center Replacement									
NPRR543	Message for Confirmed E-Tags									
NPRR588	Clarifications for PV Generation Resources									
NPRR615	PVGR Forecasting									
SCR775	Posting Results of Real-Time Data in a Display Format									
Project	Designate in Diamaina Dhana (Count - 24)	Baseline Phase	Danalina Dhana Finish	Scheduled	Sche	duled Phase	Cob	adula Impaat	р.,	dant Import
Project Number	Projects in Planning Phase (Count = 21)	Baseline Phase Start	Baseline Phase Finish	Scheduled Go-Live Date	Sche	duled Phase Finish	Sch	edule Impact	Bu	dget Impact
	Projects in Planning Phase (Count = 21) NMMS Upgrade		Baseline Phase Finish 11/21/2014				Sch 1	edule Impact	Bu	dget Impact 19%
Number		Start		Go-Live Date	12	Finish			Bu	
Number 065-01	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening	8/1/2013 10/9/2013 2/12/2014	11/21/2014 3/5/2014 9/24/2014	Go-Live Date TBD TBD TBD	12 2	Finish 2/17/2014 2/6/2015 3/4/2015	1 4 1	-5% -229% -71%	Bu 2	19% 2% -37%
Number 065-01 106-01	NMMS Upgrade MP Online Data Entry - Ph 1	Start 8/1/2013 10/9/2013	11/21/2014 3/5/2014	Go-Live Date TBD TBD	12 2	Finish 2/17/2014 2/6/2015	1 4	-5% -229%		19% 2%
Number 065-01 106-01 120-01 127-01 129-01	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management	8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014	Go-Live Date TBD TBD TBD TBD TBD TBD	12 2 3 12	Finish 2/17/2014 2/6/2015 3/4/2015 2/17/2014 /21/2015	1 4 1 2 2	-5% -229% -71% -64% -121%		19% 2% -37% 17% -16%
Number 065-01 106-01 120-01 127-01 129-01 134-01	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014	Go-Live Date TBD TBD TBD TBD TBD TBD TBD	12 2 3 12 1/	Finish 2/17/2014 2/6/2015 8/4/2015 2/17/2014 /21/2015 /27/2015	1 4 1 2	-5% -229% -71% -64% -121% -113%	2	19% 2% -37% 17% -16% 3%
Number 065-01 106-01 120-01 127-01 129-01 134-01 141-01	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 3/4/2015	Go-Live Date TBD TBD TBD TBD TBD TBD TBD TBD TBD TB	12 2 3 12 14 54	Finish 2/17/2014 2/6/2015 3/4/2015 2/17/2014 2/21/2015 2/27/2015 3/4/2015 3/4/2015	1 4 1 2 2	-5% -229% -71% -64% -121% -113% 0%	2	19% 2% -37% -17% -16% 3% 0%
Number 065-01 106-01 120-01 127-01 129-01 134-01 141-01 142-01	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 3/4/2015 12/19/2014	Go-Live Date TBD TBD TBD TBD TBD TBD TBD TBD TBD TB	12 2 3 12 14 56 3	Finish 2/17/2014 2/17/2015 3/4/2015 2/17/2014 2/21/2015 3/4/2015 3/4/2015 2/19/2014 2/19/2014	1 4 1 2 2	-5% -229% -71% -64% -121% -113% -0% -0%	2	19% 2% -37% 17% -16% 3% 0% 10%
Number 065-01 106-01 120-01 127-01 129-01 134-01 141-01 142-01 143-01	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard OSI Pi Visualization Enhancements	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014 9/15/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 3/4/2015 12/19/2014 12/10/2014	Go-Live Date TBD	12 2 3 12 14 56 3 12	Finish 2/17/2014 2/6/2015 3/4/2015 2/17/2014 //21/2015 3/4/2015 3/4/2015 2/19/2014 2/10/2014	1 4 1 2 2	-5% -229% -71% -64% -121% -113% -0% -0%	2	19% 2% -37% 17% -16% 3% 0% 10%
Number 065-01 106-01 120-01 127-01 129-01 134-01 141-01 142-01 143-01 144-01	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard OSI Pi Visualization Enhancements OC-48 Replacement with DWDM	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014 9/15/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 3/4/2015 12/19/2014 12/10/2014 2/4/2015	Go-Live Date TBD	12 2 3 12 17 57 3 12 12 2	Finish 2/17/2014 2/6/2015 3/4/2015 2/17/2014 /21/2015 /27/2015 3/4/2015 2/19/2014 2/10/2014 2/10/2014	1 4 1 2 2	-5% -229% -71% -64% -121% -113% -0% -0% -0% -196	2	19% 2% -37% 17% -16% 3% 0% 10% 0% 18%
Number 065-01 106-01 120-01 127-01 129-01 134-01 141-01 143-01 144-01 150-01	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard OSI Pi Visualization Enhancements OC-48 Replacement with DWDM Backup Resiliency	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014 9/15/2014 9/25/2014 10/24/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 3/4/2015 12/19/2014 12/10/2014 2/4/2015 12/5/2014	Go-Live Date TBD	12 2 3 12 14 54 3 12 12 2 2	Finish 2/17/2014 2/6/2015 3/4/2015 2/17/2014 2/17/2014 2/21/2015 3/4/2015 2/19/2014 2/19/2014 2/10/2014 2/6/2015 2/5/2014	1 4 1 2 2	-5% -229% -71% -64% -121% -113% -0% -0% -19% -19%	2	19% 2% -37% 17% -16% 3% 0% 10% 0% 18% 3%
Number 065-01 106-01 120-01 127-01 129-01 134-01 141-01 142-01 143-01 144-01 150-01 Various	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard OSI Pi Visualization Enhancements OC-48 Replacement with DWDM Backup Resiliency Market System Enhancements 2015	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014 9/15/2014 10/24/2014 10/24/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 3/4/2015 12/19/2014 12/10/2014 2/4/2015 12/5/2014 1/14/2015	Go-Live Date TBD	122 23 31 122 142 56 33 122 122 22 22 143	Finish 2/17/2014 2/6/2015 3/4/2015 2/17/2014 2/21/2015 3/4/2015 3/4/2015 2/19/2014 2/10/2014 2/10/2014 2/26/2015 2/5/2014 /14/2015	1 4 1 2 2	-5% -229% -71% -64% -121% -113% -0% -0% -0% -1% -1% -1% -1% -1% -1% -1% -1% -1% -1	2	19% 2% -37% 17% -16% 3% 0% 10% 0% 18% 3% 11%
Number 065-01 106-01 120-01 127-01 129-01 134-01 141-01 142-01 143-01 144-01 150-01 Various Various	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard OSI Pi Visualization Enhancements OC-48 Replacement with DWDM Backup Resiliency Market System Enhancements 2015 2014 CMM NPRRs and SCRs	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014 9/15/2014 10/24/2014 10/23/2014 11/12/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 3/4/2015 12/19/2014 12/10/2014 2/4/2015 12/5/2014 1/14/2015 1/28/2015	Go-Live Date TBD	12 2 3 3 12 12 50 3 12 12 2 2 11 10 10 11	Finish 2/17/2014 2/6/2015 3/4/2015 2/17/2014 2/21/2015 3/4/2015 3/4/2015 2/19/2014 2/10/2014 2/10/2014 2/6/2015 2/5/2014 7/14/2015	1 4 1 2 2 1	-5% -229% -71% -64% -121% -113% -0% -0% -0% -19% -19% -0% -0% -1% -0% -1% -0% -1% -0% -1% -0% -1% -1% -1% -1% -1% -1% -1% -1% -1% -1	2	19% 2% -37% 17% -16% 3% 0% 10% 0% 11% 11%
Number 065-01 106-01 120-01 127-01 134-01 141-01 142-01 144-01 150-01 Various NPRR500	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard OSI Pi Visualization Enhancements OC-48 Replacement with DWDM Backup Resiliency Market System Enhancements 2015 2014 CMM NPRRs and SCRs Posting of Generation that is Off but Available	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014 9/15/2014 9/15/2014 10/24/2014 10/23/2014 10/23/2014 10/8/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 3/4/2015 12/19/2014 12/10/2014 2/4/2015 12/5/2014 1/14/2015 1/28/2015 1/28/2015	Go-Live Date TBD	122 23 33 12 11 56 3 12 12 12 11 17 17 17	Finish 2/17/2014 2/6/2015 3/4/2015 2/17/2014 //21/2015 //27/2015 2/19/2014 2/10/2014 2/10/2015 2/5/2014 2/6/2015 2/5/2014 2/6/2015 2/5/2014 2/8/2015 2/31/2014	1 4 1 2 2	-5% -229% -71% -64% -121% -113% -0% -0% -1% -0% -1% -0% -1% -0% -1% -1% -1% -1% -1% -1% -1% -1% -1% -1	2	19% 2% -37% 17% -16% 3% 0% 10% 0% 18% 3% 11% 14%
Number 065-01 106-01 120-01 127-01 129-01 134-01 141-01 142-01 143-01 150-01 Various Various NPRR550	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard OSI Pi Visualization Enhancements OC-48 Replacement with DWDM Backup Resiliency Market System Enhancements 2015 2014 CMM NPRRs and SCRs Posting of Generation that is Off but Available Revisions to MCE Calculation	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014 9/15/2014 9/29/2014 10/24/2014 10/23/2014 11/12/2014 10/8/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 3/4/2015 12/19/2014 12/10/2014 2/4/2015 12/5/2014 1/14/2015 1/28/2015 1/28/2015	Go-Live Date TBD	12 2 3 12 11 56 3 12 12 12 11 11 10 11 11 12	Finish 2/17/2014 2/6/2015 3/4/2015 2/17/2014 //21/2015 //27/2015 2/19/2014 2/10/2014 2/10/2014 2/10/2015 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2015	1 4 1 2 2 1	-5% -229% -71% -64% -121% -113% -0% -0% -0% -1% -0% -1% -1% -0% -1% -1% -1% -1% -1% -1% -1% -1% -1% -1	2 2 NA	19% 2% -37% 17% -16% 3% 0% 10% 0% 11% 18% 3% 111% 14% 19% See #154-01
Number 065-01 106-01 120-01 127-01 134-01 141-01 142-01 144-01 150-01 Various NPRR500	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard OSI Pi Visualization Enhancements OC-48 Replacement with DWDM Backup Resiliency Market System Enhancements 2015 2014 CMM NPRRs and SCRs Posting of Generation that is Off but Available Revisions to MCE Calculation Utilize Initial Estimated Liability (IEL) Only During Initial Market	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014 9/15/2014 9/15/2014 10/24/2014 10/23/2014 10/23/2014 10/8/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 3/4/2015 12/19/2014 12/10/2014 2/4/2015 12/5/2014 1/14/2015 1/28/2015 1/28/2015	Go-Live Date TBD	12 2 3 12 11 56 3 12 12 12 11 11 10 11 11 12	Finish 2/17/2014 2/6/2015 3/4/2015 2/17/2014 //21/2015 //27/2015 2/19/2014 2/10/2014 2/10/2015 2/5/2014 2/6/2015 2/5/2014 2/6/2015 2/5/2014 2/8/2015 2/31/2014	1 4 1 2 2 1	-5% -229% -71% -64% -121% -113% -0% -0% -1% -0% -1% -0% -1% -0% -1% -1% -1% -1% -1% -1% -1% -1% -1% -1	2	19% 2% -37% 17% -16% 3% 0% 10% 0% 18% 3% 11% 14%
Number 065-01 106-01 120-01 127-01 134-01 141-01 142-01 143-01 144-01 150-01 Various Various NPRR590 NPRR597	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard OSI Pi Visualization Enhancements OC-48 Replacement with DWDM Backup Resiliency Market System Enhancements 2015 2014 CMM NPRRs and SCRs Posting of Generation that is Off but Available Revisions to MCE Calculation Utilize Initial Estimated Liability (IEL) Only During Initial Market Activity Inclusion of Incremental Exposure in Mass Transitions to Counter-	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014 9/15/2014 9/15/2014 10/24/2014 10/23/2014 11/12/2014 11/12/2014 11/12/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 3/4/2015 12/19/2014 2/4/2015 12/5/2014 1/14/2015 1/28/2015 1/28/2015	Go-Live Date TBD	12 2 3 12 11 56 3 12 12 12 11 11 10 11 11 12	Finish 2/17/2014 2/6/2015 3/4/2015 2/17/2014 //21/2015 //27/2015 2/19/2014 2/10/2014 2/10/2014 2/10/2015 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2015	1 4 1 2 2 1	-5% -229% -71% -64% -121% -113% -0% -0% -71% -71% -71% -71% -71% -71% -71% -71	2 2 NA	19% 2% -37% 17% -16% 3% 0% 10% 0% 18% 3% 11% 14% 19% See #154-01
Number 065-01 106-01 120-01 127-01 129-01 134-01 141-01 142-01 143-01 150-01 Various Various NPRR550	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard OSI Pi Visualization Enhancements OC-48 Replacement with DWDM Backup Resiliency Market System Enhancements 2015 2014 CMM NPRRs and SCRs Posting of Generation that is Off but Available Revisions to MCE Calculation Utilize Initial Estimated Liability (IEL) Only During Initial Market Activity Inclusion of Incremental Exposure in Mass Transitions to Counter- Parties that are Registered as QSEs and LSEs and Provide POLR	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014 9/15/2014 9/29/2014 10/24/2014 10/23/2014 11/12/2014 10/8/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 3/4/2015 12/19/2014 12/10/2014 2/4/2015 12/5/2014 1/14/2015 1/28/2015 1/28/2015	Go-Live Date TBD	12 2 3 12 10 5, 3 12 2 2 2 11 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	Finish 2/17/2014 2/6/2015 3/4/2015 2/17/2014 //21/2015 //27/2015 2/19/2014 2/10/2014 2/10/2014 2/10/2015 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2014 2/5/2015	1 4 1 2 2 1	-5% -229% -71% -64% -121% -113% -0% -0% -0% -1% -0% -1% -1% -0% -1% -1% -1% -1% -1% -1% -1% -1% -1% -1	2 2 NA	19% 2% -37% 17% -16% 3% 0% 10% 0% 11% 18% 3% 111% 14% 19% See #154-01
Number 065-01 106-01 120-01 127-01 129-01 134-01 141-01 142-01 143-01 150-01 Various Various NPRR500 NPRR599 NPRR597	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard OSI Pi Visualization Enhancements OC-48 Replacement with DWDM Backup Resiliency Market System Enhancements 2015 2014 CMM NPRRs and SCRs Posting of Generation that is Off but Available Revisions to MCE Calculation Utilize Initial Estimated Liability (IEL) Only During Initial Market Activity Inclusion of Incremental Exposure in Mass Transitions to Counter- Parties that are Registered as QSEs and LSEs and Provide POLR	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014 9/15/2014 9/29/2014 10/24/2014 10/23/2014 10/23/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 12/19/2014 12/19/2014 2/4/2015 12/5/2014 1/14/2015 1/28/2015 1/28/2015	Go-Live Date TBD	12 2 3 3 12 2 12 12 12 12 12 12 12 12 12 12 12 1	Finish 2/17/2014 2/6/2015 3/4/2015 2/17/2014 //21/2015 //27/2015 2/19/2014 2/10/2014 2/10/2014 2/10/2015 2/19/2014 2/10/2015 2/15/2014 //28/2015 2/31/2014 //28/2015 //28/2015	1 4 1 2 2 1	-5% -229% -71% -64% -121% -113% -0% -0% -0% -1% -0% -1% -1% -0% -1% -1% -1% -1% -1% -1% -1% -1% -1% -1	2 2 NA NA	19% 2% -37% 17% -16% 3% 0% 10% 0% 11% 14% 19% See #154-01 See #154-01
Number 065-01 106-01 120-01 127-01 129-01 134-01 141-01 142-01 143-01 144-01 Various NPRR500 NPRR599 NPRR597 NPRR601	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard OSI Pi Visualization Enhancements OC-48 Replacement with DWDM Backup Resiliency Market System Enhancements 2015 2014 CMM NPRRs and SCRs Posting of Generation that is Off but Available Revisions to MCE Calculation Utilize Initial Estimated Liability (IEL) Only During Initial Market Activity Inclusion of Incremental Exposure in Mass Transitions to Counter- Parties that are Registered as QSEs and LSEs and Provide POLR Service Reliability Deployment Price Adder	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014 9/15/2014 9/15/2014 10/24/2014 10/23/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 12/19/2014 12/19/2014 12/19/2014 12/19/2015 12/5/2014 1/14/2015 1/28/2015 1/28/2015 1/28/2015	Go-Live Date TBD	122 23 33 122 10, 55, 3 122 122 12, 11, 11, 12, 11, 12, 11, 12, 11, 11,	Finish 2/17/2014 2/17/2014 2/6/2015 3/4/2015 2/17/2014 3/21/2015 3/4/2015 3/4/2015 2/19/2014 2/10/2014 2/6/2015 2/5/2014 3/14/2015 2/28/2015 3/28/2015 3/28/2015 3/28/2015 3/28/2015 3/28/2015 3/28/2015 3/28/2015 3/28/2015	1 4 1 2 2 1	-5% -229% -71% -64% -121% -113% -0% -0% -0% -1% -0% -1% -0% -5% -0% -5% -0% -5% -0% -5% -0% -5% -0% -5% -0% -5% -0% -5% -5% -5% -0% -5% -5% -5% -5% -5% -5% -5% -5% -5% -5	2 2 NA NA NA	19% 2% -37% 17% -16% 3% 0% 10% 0% 18% 3% -11% 14% 19% See #154-01 See #154-01 See #154-01 See #149-01
Number 065-01 106-01 120-01 127-01 134-01 141-01 142-01 144-01 150-01 Various Various Varres NPRR500 NPRR597 NPRR601 NPRR601 NPRR606	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard OSI Pi Visualization Enhancements OC-48 Replacement with DWDM Backup Resiliency Market System Enhancements 2015 2014 CMM NPRRs and SCRs Posting of Generation that is Off but Available Revisions to MCE Calculation Utilize Initial Estimated Liability (IEL) Only During Initial Market Activity Inclusion of Incremental Exposure in Mass Transitions to Counter- Parties that are Registered as QSEs and LSEs and Provide POLR Service Reliability Deployment Price Adder As-Built Clarification of Reliability Deployment Price Adder	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014 9/15/2014 10/24/2014 10/23/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 3/4/2015 12/19/2014 12/10/2014 2/4/2015 12/5/2014 1/14/2015 1/28/2015 1/28/2015 1/28/2015 1/28/2015 1/28/2015	Go-Live Date TBD	12 2 3 12 10 5,5 3 12 2 2 2 11 10 10 10 10 10 10 10 10 10 10 10 10	Finish 2/17/2014 2/16/2015 3/4/2015 2/17/2014 //21/2015 2/17/2015 //27/2015 3/4/2015 2/19/2014 2/10/2014 2/10/2014 2/10/2014 2/10/2014 //28/2015 //28/2015 //28/2015 //28/2015 //28/2015 //28/2015 //28/2015	1 4 1 2 2 1	-5% -229% -71% -64% -121% -113% -0% -0% -78 -78 -78 -78 -78 -78 -78 -78 -78 -78	2 2 NA NA	19% 2% -37% 17% -16% 3% 0% 10% 0% 18% 3% 11% 144% 199% See #154-01 See #154-01 See #154-01 See #149-01 See #149-01
Number 065-01 106-01 120-01 127-01 129-01 134-01 141-01 142-01 144-01 150-01 Various Various VPRR500 NPRR597 NPRR601 NPRR601 NPRR626 NPRR665 SCR777	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard OSI Pi Visualization Enhancements OC-48 Replacement with DWDM Backup Resiliency Market System Enhancements 2015 2014 CMM NPRRs and SCRs Posting of Generation that is Off but Available Revisions to MCE Calculation Utilize Initial Estimated Liability (IEL) Only During Initial Market Activity Inclusion of Incremental Exposure in Mass Transitions to Counter- Parties that are Registered as QSEs and LSEs and Provide POLR Service Reliability Deployment Price Adder As-Built Clarification of Reliability Deployment Price Adder Bilateral CRR Interface Enhancement	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014 9/15/2014 9/15/2014 10/24/2014 10/23/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 12/19/2014 12/19/2014 12/19/2014 12/19/2015 12/5/2014 1/14/2015 1/28/2015 1/28/2015 1/28/2015	Go-Live Date TBD	12 2 3 12 10 5,5 3 12 2 2 2 11 10 10 10 10 10 10 10 10 10 10 10 10	Finish 2/17/2014 2/17/2014 2/6/2015 3/4/2015 2/17/2014 3/21/2015 3/4/2015 3/4/2015 2/19/2014 2/10/2014 2/6/2015 2/5/2014 3/14/2015 2/28/2015 3/28/2015 3/28/2015 3/28/2015 3/28/2015 3/28/2015 3/28/2015 3/28/2015 3/28/2015	1 4 1 2 2 1	-5% -229% -71% -64% -121% -113% -0% -0% -0% -1% -0% -1% -0% -5% -0% -5% -0% -5% -0% -5% -0% -5% -0% -5% -0% -5% -0% -5% -5% -5% -0% -5% -5% -5% -5% -5% -5% -5% -5% -5% -5	2 2 NA NA NA	19% 2% -37% 17% -16% 3% 0% 10% 0% 18% 3% -11% 14% 19% See #154-01 See #154-01 See #154-01 See #149-01
Number 065-01 106-01 120-01 127-01 134-01 141-01 142-01 144-01 150-01 Various Various Varres NPRR500 NPRR597 NPRR601 NPRR601 NPRR606	MMMS Upgrade MP Online Data Entry - Ph 1 IT Production Hardening SQL Server 2012 Upgrade / Cluster Consolidation Access and Roles Management Privileged Account Management Production Virtualization Implementation of NERC BAL-TRE-001 Regional Standard OSI Pi Visualization Enhancements OC-48 Replacement with DWDM Backup Resiliency Market System Enhancements 2015 2014 CMM NPRRs and SCRs Posting of Generation that is Off but Available Revisions to MCE Calculation Utilize Initial Estimated Liability (IEL) Only During Initial Market Activity Inclusion of Incremental Exposure in Mass Transitions to Counter- Parties that are Registered as QSEs and LSEs and Provide POLR Service Reliability Deployment Price Adder As-Built Clarification of Reliability Deployment Price Adder	Start 8/1/2013 10/9/2013 2/12/2014 3/6/2014 7/1/2014 6/5/2014 11/6/2014 8/14/2014 9/15/2014 10/24/2014 10/23/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014 11/12/2014	11/21/2014 3/5/2014 9/24/2014 8/27/2014 10/1/2014 11/19/2014 3/4/2015 12/19/2014 12/10/2014 2/4/2015 12/5/2014 1/14/2015 1/28/2015 1/28/2015 1/28/2015 1/28/2015 1/28/2015	Go-Live Date TBD	12 2 3 12 10 55 3 12 2 2 2 11 10 10 10 10 10 10 10 10 10 10 10 10	Finish 2/17/2014 2/16/2015 3/4/2015 2/17/2014 //21/2015 2/17/2015 //27/2015 3/4/2015 2/19/2014 2/10/2014 2/10/2014 2/10/2014 2/10/2014 //28/2015 //28/2015 //28/2015 //28/2015 //28/2015 //28/2015 //28/2015	1 4 1 2 2 1	-5% -229% -71% -64% -121% -113% -0% -0% -78 -78 -78 -78 -78 -78 -78 -78 -78 -78	2 2 NA NA NA	19% 2% -37% 17% -16% 3% 0% 10% 0% 18% 3% 11% 144% 199% See #154-01 See #154-01 See #154-01 See #149-01 See #149-01



Project	Projects in Execution Phase (Count = 16)	Baseline Phase	Baseline Go-Live Target	Scheduled	Scheduled Phase	Schedule Impact		Budget Impact	
Number	1 Tojects III Execution 1 Hase (Count - 10)	Start	Buseline do-Eive rarget	Go-Live Date	Finish			3	
052-01	EMS Upgrade	9/24/2014	5/25/2016	5/25/2016	10/31/2016		0%		0%
057-01	EPS Metering DB Redesign	4/17/2013	9/6/2013	12/11/2014	12/30/2014	2	-324%	2	-210%
074-02	Cyber Security Project #9	9/11/2014	11/28/2014	12/5/2014	12/10/2014	1	-8%	2	-7%
089-01	Information Technology Change Management	10/29/2014	5/1/2015	5/1/2015	5/29/2015		0%		1%
097-01	ABB MMS OS Technology Refresh	8/15/2014	3/26/2015	3/26/2015	5/8/2015		0%		5%
104-01	Disaster Recovery: S&B, RTL, MDT	10/9/2014	1/18/2015	1/18/2015	1/28/2015		0%		0%
115-01	Cyber Security Project #14	6/30/2014	1/15/2015	1/15/2015	3/6/2015		0%		3%
116-01	Collage Replacement	2/6/2014	9/22/2014	6/4/2015	6/25/2015	4	-111%	2	-59%
128-0x	Capital Efficiencies and Enhancements - 2014	1/1/2014	12/31/2014	12/31/2014	12/31/2014		0%	2	-5%
130-01	Electronic Crisis Communications Enhancements	6/19/2014	12/12/2014	2/13/2015	3/16/2015	1	-35%		0%
135-01	Common Infrastructure - 2014	1/1/2014	12/31/2014	12/31/2014	12/31/2014		0%		6%
137-01	EIS Reporting and Control Systems Upgrade	8/13/2014	1/15/2015	1/15/2015	1/28/2015		0%		16%
99914	Minor Cap - 2014	1/1/2014	12/31/2014	12/31/2014	12/31/2014	NA	0%		-1%
2014 PC	Program Control - 2014	1/1/2014	12/31/2014	12/31/2014	12/31/2014	NA	0%		11%
SCR772	New Extract for Five Minute Interval Settlement Data	11/5/2014	2/13/2015	2/27/2015	4/8/2015	1	-14%		24%
SCR779	Increase to the CRR Auction Transaction Limit	9/29/2014	2/13/2015	2/11/2015	3/4/2015		1%		15%



Project Number	Projects in Stabilization (Count = 9)	Baseline Execution Phase Start	Baseline Go-Live Target	Actual Go-Live Date	Scheduled Execution Phase Finish	Sche	dule Impact	Bu	dget Impact
NPRR467	Balancing Account Resettlement Due to DAM Resettlement	7/1/2014	12/6/2014	12/6/2014	4/8/2015		0%	NA	See #10052
NPRR580	Establishment of a Rolling CRR Balancing Account Fund	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	7/2/2014	9/26/2014	9/22/2014	10/28/2014		4%	2	-16%
10052_01	Settlement System Upgrade	1/25/2012	12/23/2014	12/6/2014	4/7/2015		1%		0%
066-01	Planning Site Transition to MIS	7/2/2014	10/16/2014	10/16/2014	12/3/2014		0%		2%
083-01	Centralized Application Log Management	8/28/2013	5/7/2014	3/27/2014	2/4/2015		16%		10%
107-01	IBM AIX Operating System Upgrades	1/29/2014	5/2/2014	5/2/2014	12/17/2014		0%		21%
110-01	Taylor Control Room Upgrade	2/19/2014	7/7/2014	6/4/2014	12/10/2014		23%		10%
122-01	Infoblox DNS/DHCP	5/21/2014	11/5/2014	11/20/2014	1/23/2015	1	-8%		24%
	<u> </u>		AA						
Project Number	Projects On Hold (Count = 1)	Forecast Start Date	Baseline Phase Finish	Scheduled Go-Live Date	Scheduled Phase Finish	Schedule Impact		Bu	dget Impact
NPRR327	State Estimator Data Redaction Methodology	12/5/2012	2/12/2013	TBD	TBD	3		3	
Project Number	Projects Completed in the Current Year	Baseline Execution Phase	Baseline Go-Live Target	Actual Go-Live Date	Actual Execution Phase Finish	Sche	dule Status	Tot	tal Variance
	(Count = 33) S COMPLETED IN 2014 (Count = 33) Sorted by Proje	Start		Dute	T nuse T mism				-6%
		41010044	0.770044	0.77.004.4	0.000,00044		00/		
NPRR240	Proxy Energy Offer Curve	1/8/2014	2/7/2014	2/7/2014	9/26/2014		0%	NA	See #117-01
NPRR425	Creation of a WGR Group for GREDP and Base Point Deviation Evaluation	8/21/2013	3/26/2014	3/3/2014	3/31/2014		10%		46%
NPRR485	Clarification for Fuel Adder Provisions	10/23/2013	9/30/2014	9/30/2014	10/31/2014		0%	NA	See #128-01
NPRR491	Updated Distribution Generation and Demand Response Information for ERCOT	2/26/2014	8/1/2014	8/1/2014	8/31/2014		0%	NA	See #128-01
NPRR509	Shortened RTM Settlement Timeline	12/11/2013	2/23/2014	2/23/2014	2/23/2014		0%	NA	See #128-01
NPRR532	Performance Measurement and Verification and Telemetry Requirements for Load Resources Providing Non-Spin	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	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	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	1/8/2014	6/1/2014	6/1/2014	9/26/2014		0%	NA	See #117-01
NPRR570	Reduce RTM Settlement Timeline to Operating Day Plus Five	2/16/2014	4/27/2014	4/18/2014	4/27/2014		12%	NA	See #128-01
NPRR571	ERS Weather-Sensitive Loads Requirements	4/8/2014	9/30/2014	9/30/2014	10/31/2014		0%	NA	See #128-01
NPRR575	Clarification of the RUC Resource Buy-Back Provision for Ancillary Services	12/10/2013	1/7/2014	1/7/2014	1/31/2014		0%	NA	See #78-01
NOGRR105	Generation Resource Frequency Response Test Procedure	12/4/2013	2/7/2014	2/7/2014	3/26/2014		0%		31%
SCR756	MarkeTrak Enhancements - Remaining SCR756 Items	2/5/2014	8/17/2014	8/17/2014	9/19/2014		0%		8%
SCR769	CRRAH Digital Certificate New Role for Read Only Access	3/20/2014	8/1/2014	8/1/2014	9/10/2014		0%		15%
SCR774	Enhancement to Outage Scheduler and Reports	2/26/2014	9/26/2014	9/26/2014	10/31/2014		0%	NA	See #128-01
Various	2014 Market System Enhancements	1/8/2014	6/1/2014	6/1/2014	9/26/2014		0%	5	-19%
016-01	ADP-IDM Interface	11/6/2013	3/26/2014	3/26/2014	5/6/2014		0%		16%
017-01	Oracle 11g Upgrade	10/10/2012	7/26/2014	8/7/2014	8/7/2014		-1%		-2%
047-01	CMSDK/MIR Replacement	4/24/2013	12/8/2013	4/15/2014	10/22/2014	2	-56%	2	-54%
077-01	Contract Lifecycle Management	9/11/2013	5/5/2014	8/20/2014	10/8/2014	2	-45%		5% -2%
101-01	Emergency Notification System Hardware Refresh	11/13/2013 11/20/2013	1/24/2014 4/23/2014	12/20/2013	1/24/2014		48% 4%		-2% 4%
108-01	Alstom Load Forecasting Upgrade		1	4/16/2014	5/14/2014		4% 20%		-2%
113-01	Dev Hardware Refresh and Virtualization Expansion	11/13/2013	1/24/2014	1/9/2014	2/28/2014			2	-2% -36%
114-01	Lawson Security	1/29/2014	2/17/2014	2/17/2014	3/5/2014		0% 1%	2	-36% 0%
118-01 119-01	Mitigation Plan RTCA Enhancements CREZ Voltage Control and Coordination	2/5/2014 3/6/2014	4/18/2014 4/18/2014	4/17/2014 4/18/2014	5/8/2014 10/1/2014		1% 0%		0% 34%
121-01	2013/2014 Network Refresh	5/14/2014	10/17/2014	10/20/2014	11/1/2014		-1%		34% 0%
121-01	VSAT/TSAT Upgrade	3/27/2014	7/16/2014	6/10/2014	7/2/2014		-1% 32%		35%
125-01	Reactive Test Forms Revision	5/19/2014	9/26/2014	9/26/2014	10/31/2014		32% 0%	NA	35% See #128-01
128-04	Email Gateway Refresh	7/23/2014	9/26/2014	9/26/2014	9/17/2014		0%	IVA	41%
131-01	Client Digital Certificate Upgrade	6/12/2014	8/17/2014	8/17/2014	9/17/2014		0%	2	-13%
132-01	Testing Environment Management	8/27/2014	10/15/2014	10/15/2014	10/15/2014		0%		-13%
133-01	resumy Environment Wallagement	0/2//2014	10/15/2014	10/15/2014	10/15/2014		U /0		0 /6



			Footnotes						
			1 - Current phase took longe	er than expected, resul	ting in additional funding	and/or tim	e required		
			2 - Current phase requiring more labor than expected, resulting in additional funding and/or time required					ired	
			3 - Project placed on hold						
			4 - Resource constraints re	sulted in delay to curre	nt phase				
			5 - Project was on an urgen	nt timeline to meet a pre	-defined target implement	ation date	e. Compressed	project p	lanning
			required budget estimation	before full requirement	s were known. Addition	al effort n	eeded, resulting	g in additi	onal funding.
			NA - Metric not calculated b						
			it is reported at the	e parent project level, or					
			- it is an administrati	ve project					
Project	Projects Not Yet Started (Count = 4)	Forecast Start							
Number	- Flojecis Not let stalted (Count - 4)	Date							
PROJECT	S NOT YET STARTED (Count = 4) Sorted by	Start Date							
NPRR573	Alignment of PRC Calculation	Dec-2014							
NPRR581	Add Fast Responding Regulation Service as a Subset of Regulation Service	Dec-2014							
SCR771	ERCOT System Change Allowing Independent Master QSE to Represent Split Generation Resources	Dec-2014							
TBD	Browser Upgrade	Dec-2014							

