

ERCOT Monthly Operational Overview (October 2014)

ERCOT Public November 15, 2014

Grid Planning & Operations

Summary – October 2014

Operations

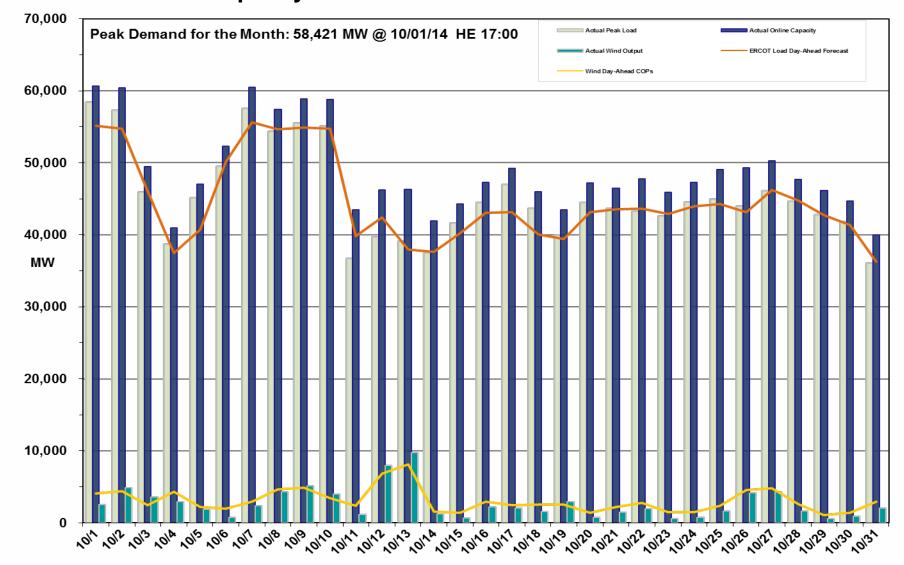
- The peak demand of 58,421 MW on October 1st was greater than the mid-term forecast peak of 55,171 MW as well as the October 2013 actual peak demand of 54,710 MW. The instantaneous peak load on October 1st was 58,603 MW.
- Day-ahead load forecast error for October was 2.40%
- ERCOT issued two notifications
 - A single emergency notice in the Rio Grande Valley due to forced outages causing low voltages.
 - A single emergency notice in the Rio Grande Valley due to forced outages causing the Reliability Margin to fall below 95 MW.

Planning Activities

- 236 active generation interconnection requests totaling over 63,100 MW, including 25,500 MW of wind generation as of October 31, 2014. The same number of requests and 1,600 fewer MW from September 30, 2014.
- 11,493 MW wind capacity in commercial operations on October 31, 2014.



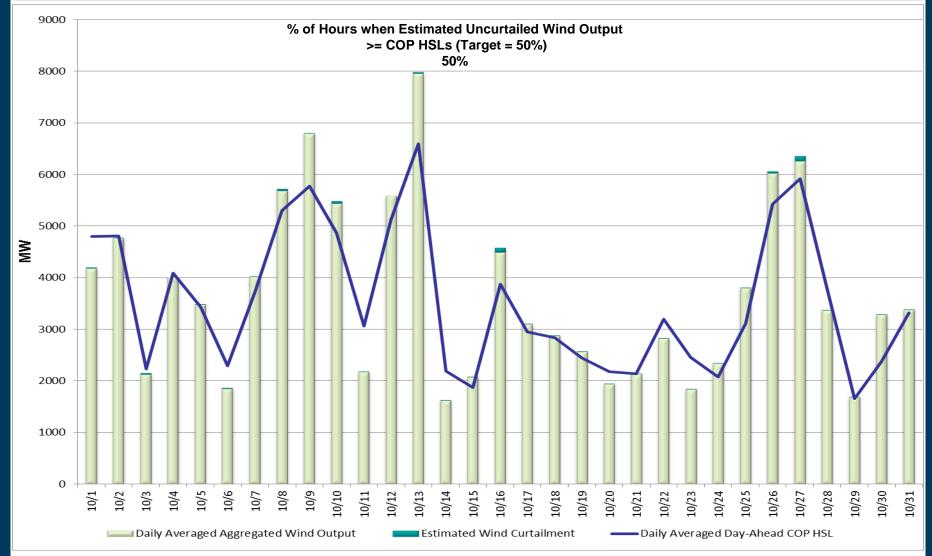
Daily Peak Demand: Hourly Average Actual vs. Forecast, Wind Day-Ahead COPs & On-line Capacity at Peak – October 2014





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

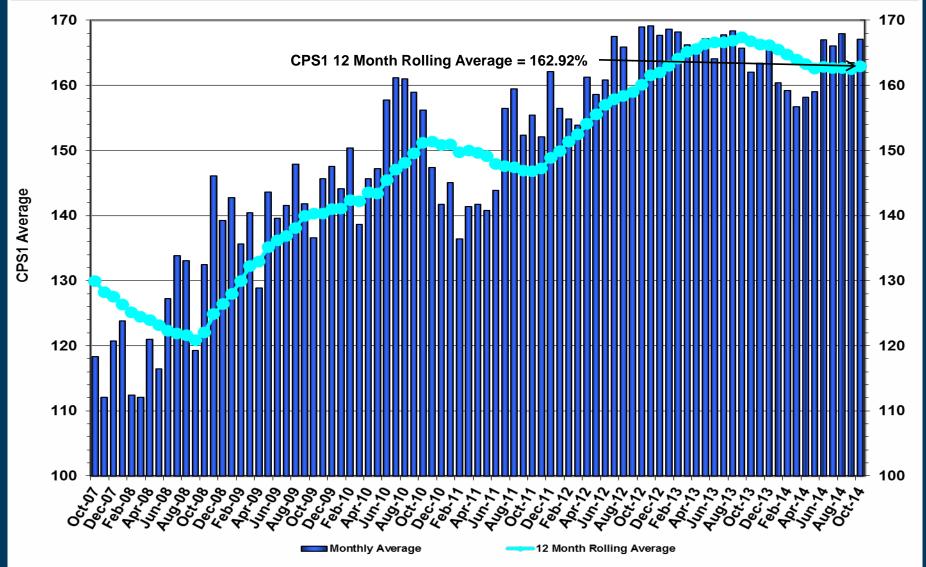
All Hours – October 2014





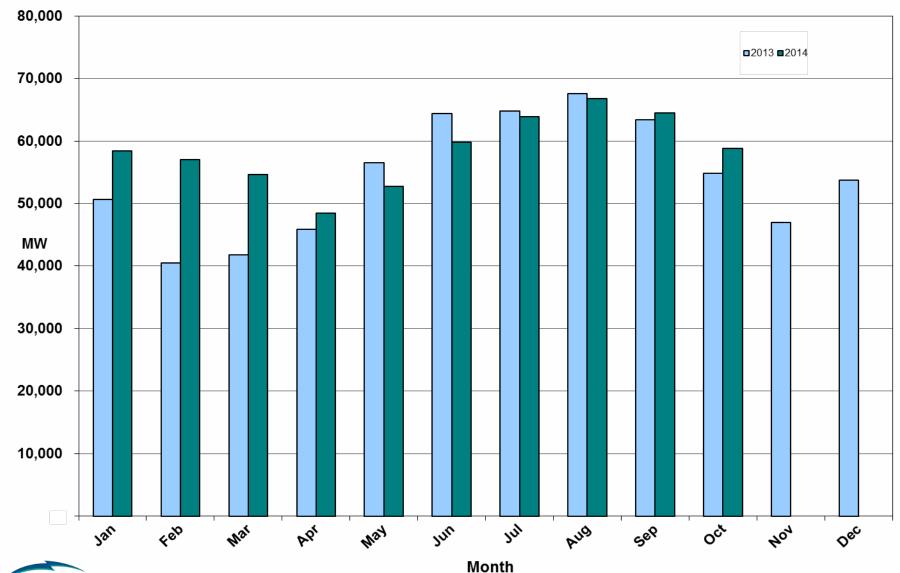
Note: QSEs must use the AWST 50% probability of exceedance forecast as the HSL in their COPs

ERCOT's CPS1 Monthly Performance – October 2014



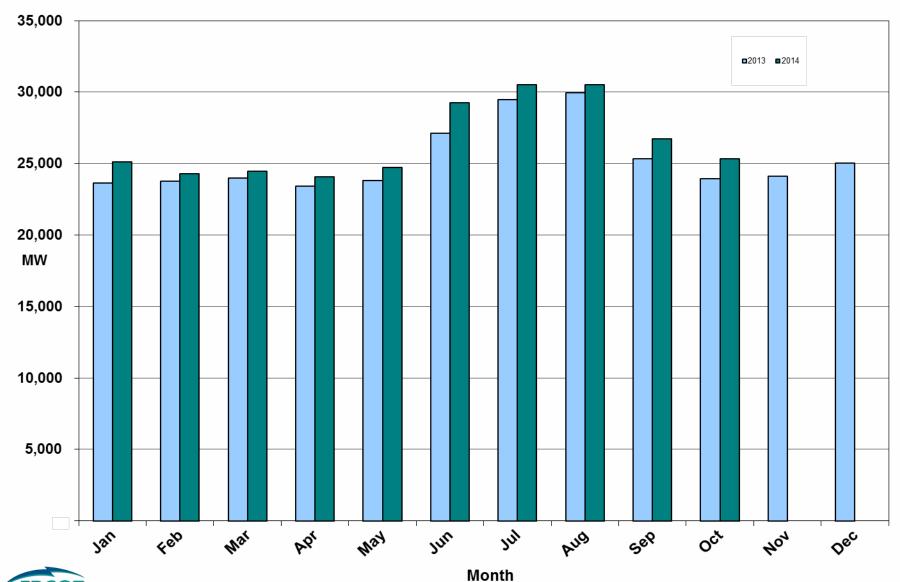


Monthly Peak Actual Demand – October 2014





Monthly Minimum Actual Demand – October 2014





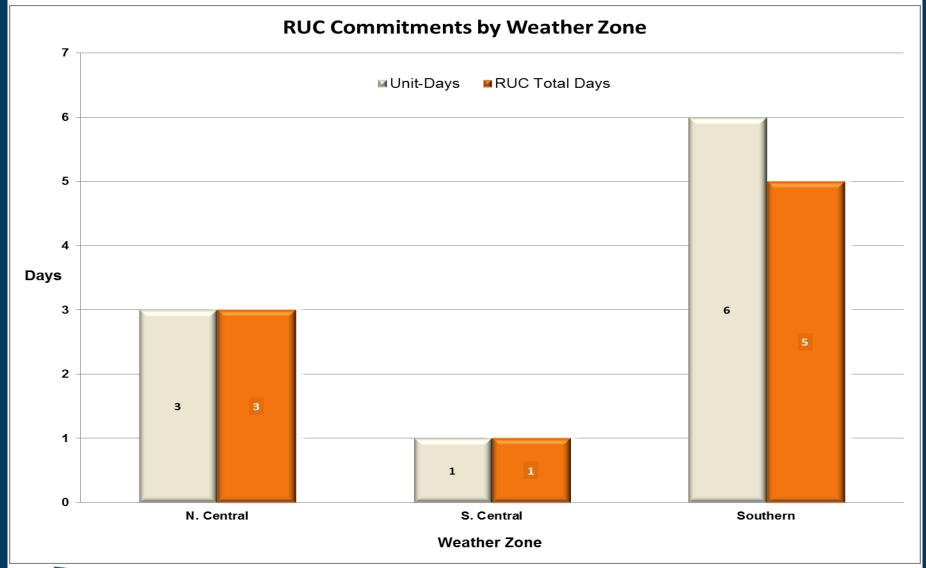
Day-Ahead Load Forecast Performance – October 2014

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	Octobe MA	_
Average Annual MAPE	2.83	3.02	2.86	2.91	2.	40
Lowest Monthly MAPE	1.63	2.51	2.07	2.35	Lowest Daily MAPE	0.74 Oct – 29
Highest Monthly MAPE	3.55	3.49	3.50	3.70	Highest Daily MAPE	5.90 Oct – 11



Reliability Unit Commitment (RUC) Capacity by Weather Zone – Oct. 2014





Generic Transmission Limits (GTLs) - October 2014

GTLs	Oct 13 Days GTLs	Aug 14 Days GTLs	Sep 14 Days GTLs	Oct 14 Days GTLs	Last 12 Months Total Days (Nov13 - Oct14)
North – Houston	0	0	0	0	0
West - North	1	0	0	0	10
Valley Import	0	0	0	2	9
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 - October 2014

Summary of October 8 Valley Event

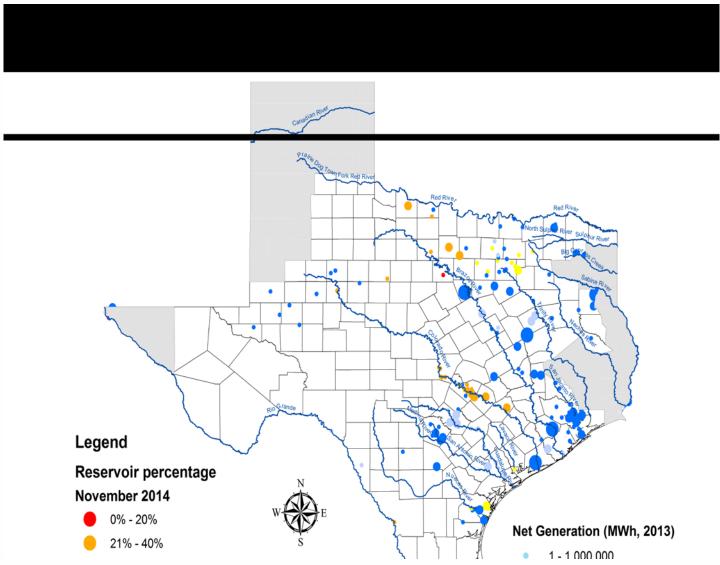
- At the time of the event:
 - Load in the Rio Grande Valley was approximately 2000 MW
 - Multiple local transmission outages were ongoing, including Rio Hondo La Palma 345 kV line
 - Some generation in the Valley was out for forced maintenance
- A forced outage of a 650 MW combined-cycle facility increased the flow on the Valley Import.
- All available generation in the Rio Grande Valley was increased to reduce the Valley Import, resulting in localized transmission issues.
- At 16:47, ERCOT directed 200 MW of firm load to be shed to resolve the localized transmission issues and to maintain the Valley Import margin.
- 90 MW of power was able to be imported across the Railroad Tie. Some of the tripped generation was able to be restored.
- Load restoration began at 18:00 and was fully restored by approximately 18:30.

Summary of October 9 Transmission Emergency

- A 345kV line that can supply power to the Rio Grande Valley tripped causing the Valley Import
 margin to fall below 95MW. This prompted a Transmission Emergency which allowed for power to be
 imported across the Railroad Tie.
- All available generation was brought on or increased until the 345kV line returned to service.



Lake Levels Update – November 1, 2014



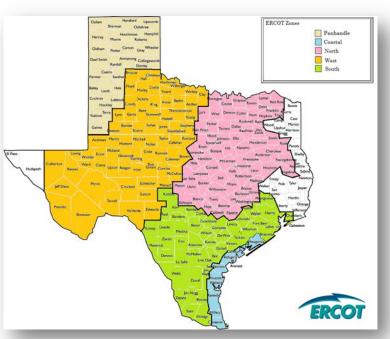


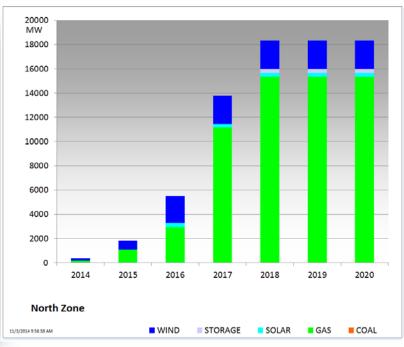
Planning Summary – October 2014

- ERCOT is currently tracking 236 active generation interconnection requests totaling over 63,100 MW. This includes over 25,500 MW of wind generation.
- ERCOT is currently reviewing proposed transmission improvements with a total cost of \$394.1 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.



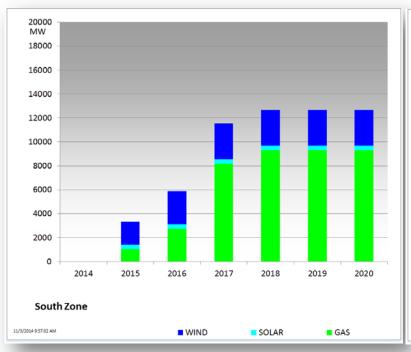
Cumulative Installed MW Capacity of Interconnection Requests by Zone – October 2014

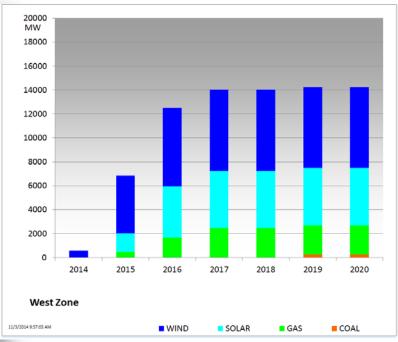






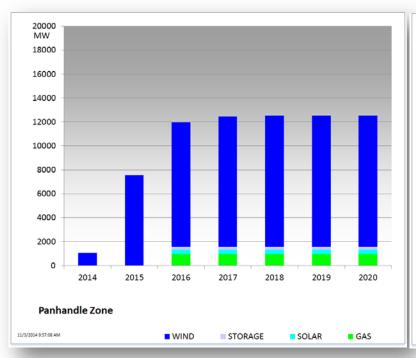
Cumulative Installed MW Capacity of Interconnection Requests by Zone – October 2014

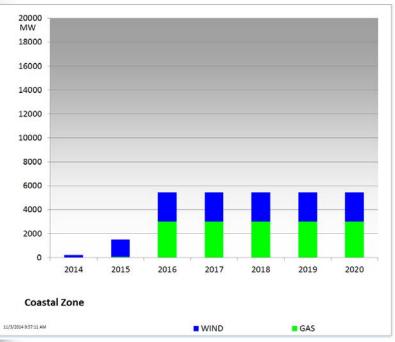




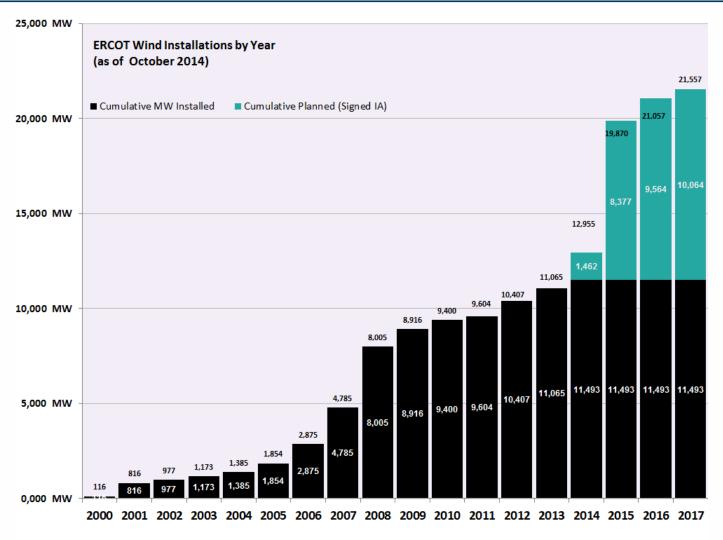


Cumulative Installed MW Capacity of Interconnection Requests by Zone – October 2014





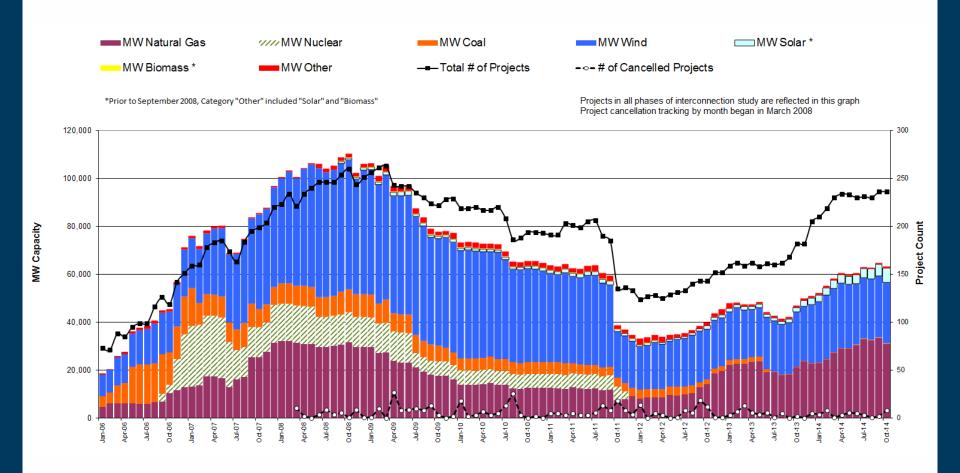
Wind Generation - October 2014



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.

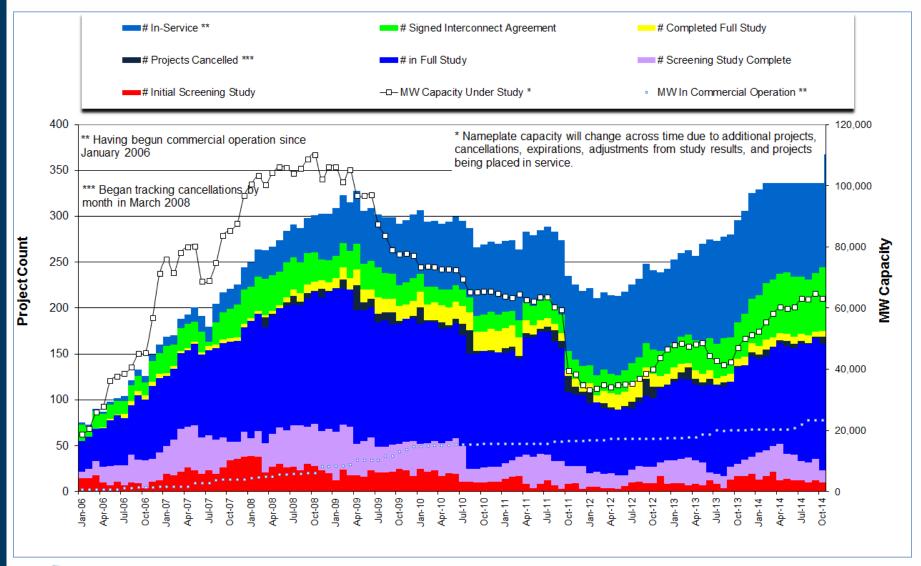


Generation Interconnection Activity by Fuel – Oct. 2014





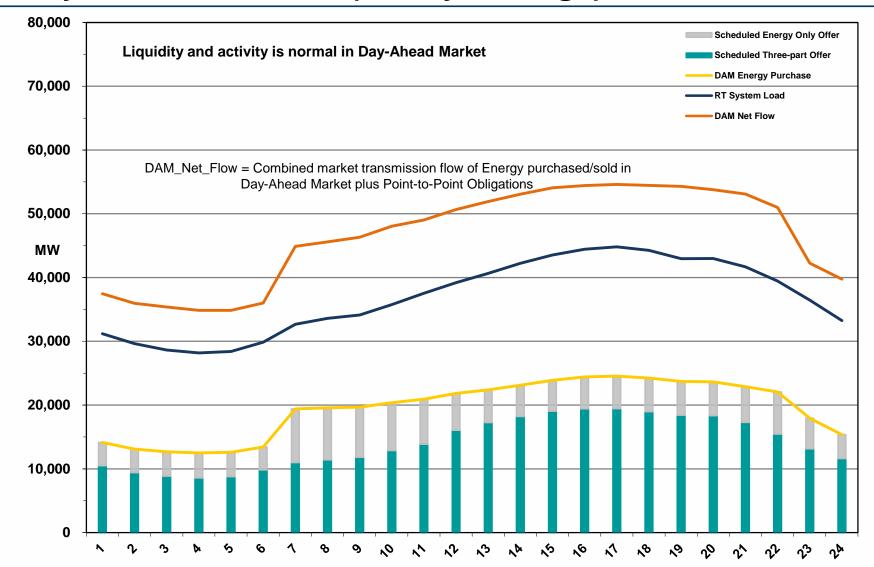
Generation Interconnection Activity by Project Phase – October 2014





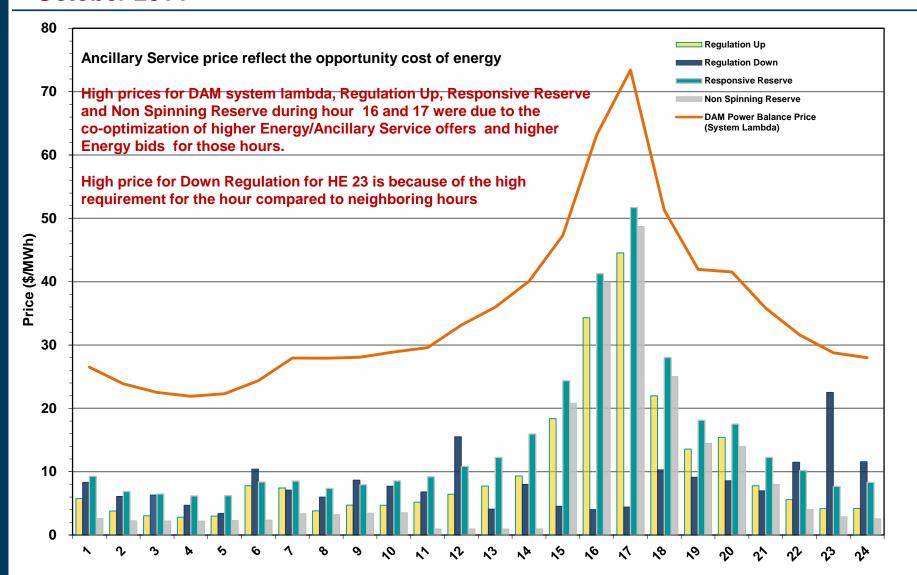
Market Operations

Day-Ahead Schedule (Hourly Average) - October 2014



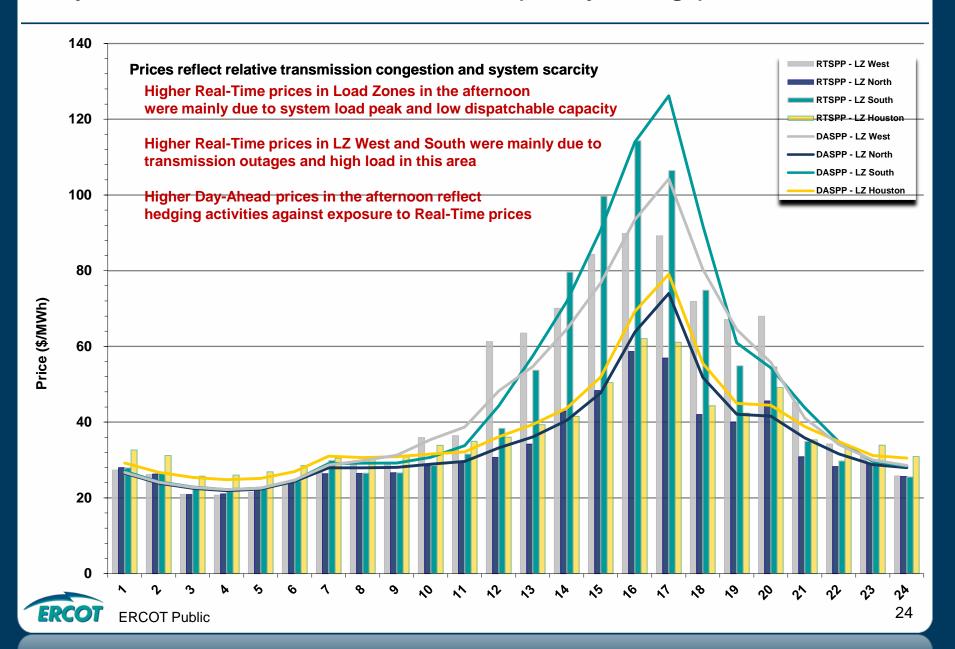


Day-Ahead Electricity And Ancillary Service Hourly Average Prices – October 2014

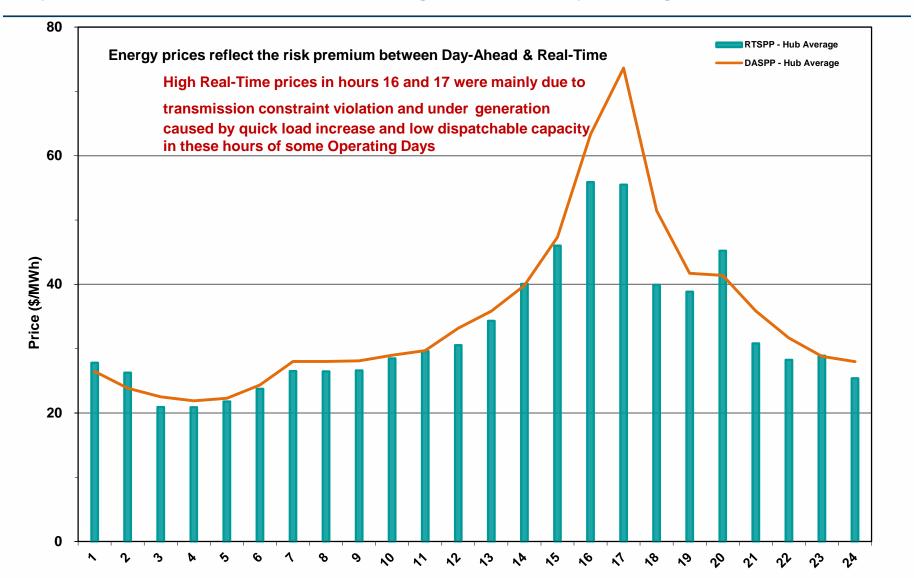




Day-Ahead Vs Real-Time Load Zone SPP (Hourly Average) - October 2014

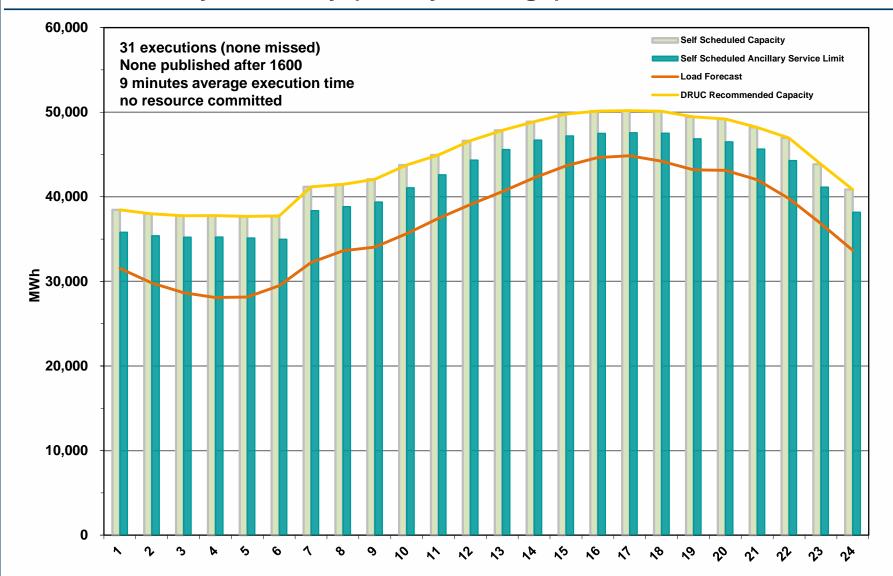


Day-Ahead Vs Real-Time Hub Average SPP (Hourly Average) - October 2014



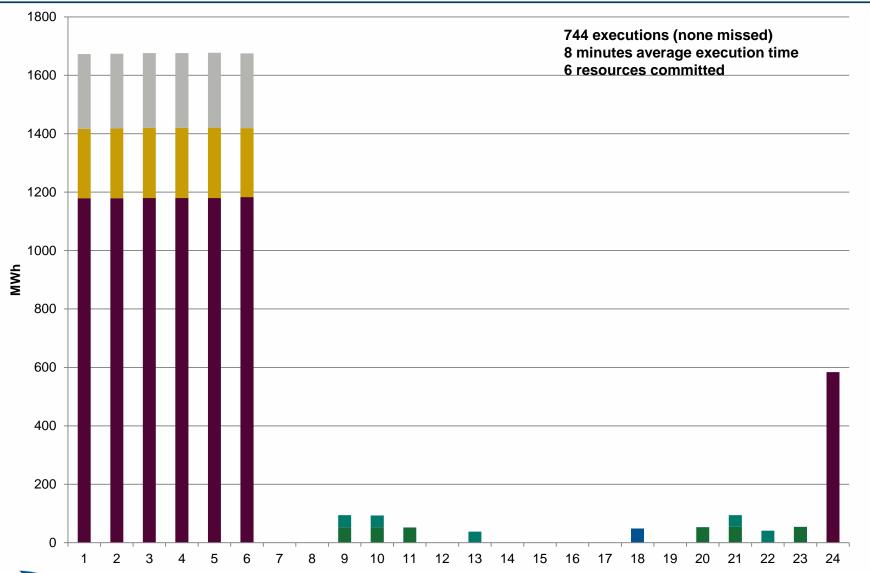


DRUC Monthly Summary (Hourly Average) – October 2014





HRUC Monthly Summary – October 2014

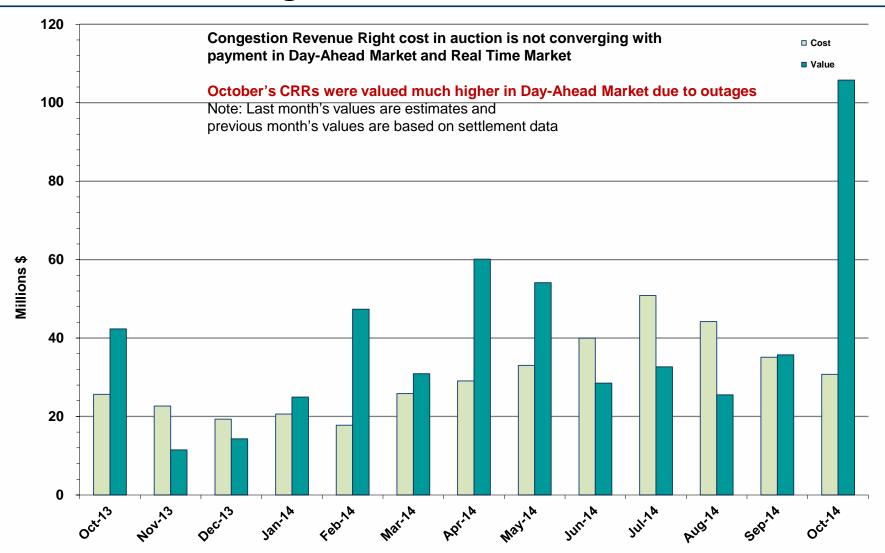




Non-Spinning Reserve Service Deployment – October 2014

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

CRR Price Convergence – October 2014





ORDC Price Adder (Daily Average) - October 2014

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





ERS Procurement for October 2014 – January 2015

	BH1	BH2	внз	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

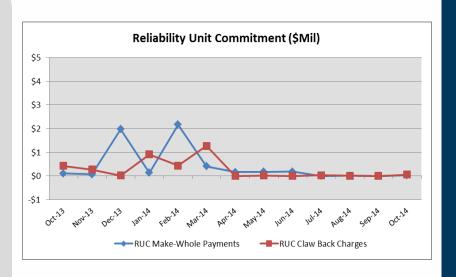
HE 1700 through 2000, Monday thru Friday except ERCOT Holidays

All other hours



Reliability Services – October 2014

Reliability Unit Commitment (RUC)	\$ in Millions
RUC Make-Whole Payments	(\$0.03)
RUC Clawback Charges	\$0.06
RUC Commitment Settlement	\$0.03
RUC Capacity Short Charges	\$0.03
RUC Make-Whole Uplift	\$0.00
RUC Commitment Cost Allocation	\$0.03
RUC Decommitment Payments	\$0.00



RUC Make-Whole Payments increased in October. RUC Clawback Charges were \$0.06M.

There was a credit of \$0.06M allocated directly to load in October 2014, compared to:

- No allocation in September 2014
- \$0.42M credit in October 2013



Capacity Services – October 2014

Capacity Services	\$ in Millions
Regulation Up Service	\$3.26
Regulation Down Service	\$3.04
Responsive Reserve Service	\$25.75
Non-Spinning Reserve Service	\$9.06
Black Start Service	\$0.61
Voltage Services - Reactive Power	\$0.00
Voltage Services - Lost Opportunity	\$0.00
Total Charges	\$41.72

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

October 2014 cost was \$41.72M, compared to:

- A charge of \$26.35M in September 2014
- A charge of \$32.33M in October 2013



Energy Settlement – October 2014

Day-Ahead Market Energy Settlement	\$ in Millions
Energy Purchases	\$571.75
Point to Point Obligation Purchases	\$85.70
RMR Day-Ahead Revenue	\$0.00
Energy Sales	(\$550.70)
Day-Ahead Congestion Rent	\$106.75
Day-Ahead Market Make-Whole Payments	(\$0.07)

Day-Ahead Market energy settlement activity increased compared to last month, while Real-Time Market energy settlement activity decreased from last month.

Real-Time Market Energy Settlement	\$ in Millions
Energy Imbalance at a Resource Node	(\$519.87)
Energy Imbalance at a Load Zone	\$858.16
Energy Imbalance at a Hub	(\$235.30)
Real Time Congestion from Self Schedules	\$9.98
Block Load Transfers and DC Ties	(\$5.60)
Impact to Revenue Neutrality	\$107.37
Emergency Energy Payments	(\$0.33)
Base Point Deviation Charges	\$0.34
Real-Time Metered Generation (MWh in millions)	27.41



Congestion Revenue Rights (CRR) – October 2014

	\$ in Millions
Annual Auction	(\$24.21)
Monthly Auction	(\$6.54)
Total Auction Revenue	(\$30.75)
Day-Ahead CRR Settlement	(\$105.77)
Day-Ahead CRR Short-Charges	\$6.86
Day-Ahead CRR Short-Charges Refunded	(\$6.86)
Real-Time CRR Settlement	\$0.00
Real-Time CRR Short-Charges	\$0.00
Real-Time CRR Short-Charges Refunded	\$0.00
Total CRR Funding	(\$105.77)
Day-Ahead Point to Point Obligations Settlement	\$85.70
Real-Time Point to Point Obligation Settlement	(\$108.79)
Net Point to Point Obligation Settlement	(\$23.09)

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

Distribution of Balancing Account funds to load for October 2014 was \$1.00M, compared to:

- \$0.97M Credit in September 2014
- \$5.67M Credit in October 2013

Point to Point Obligations settled with a net payment of \$23.09M compared to a net payment of \$35.21M last month.



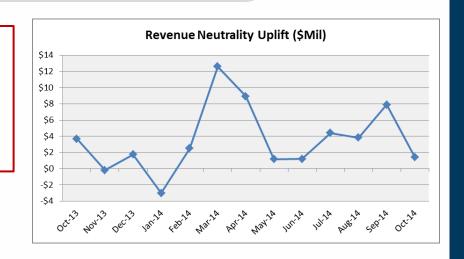
Revenue Neutrality – October 2014

Revenue Neutrality Settlement	\$ in Millions
Real-Time Point to Point Obligation Settlement	(\$108.79)
Real-Time Point to Point Options and Options with Refund Settlement	\$0.00
Real-Time Energy Imbalance Settlement	\$102.99
Real-Time Congestion from Self-Schedules Settlement	\$9.98
DC Tie & Block Load Transfer Settlement	
Charge to Load	\$1.42

Revenue Neutrality charges to load decreased compared to last month and to October 2013.

October 2014 was a charge of \$1.42M, compared to:

- \$7.90M charge in September 2014
- \$3.68M charge in October 2013





Real Time Ancillary Service Imbalance (ORDC)- October 2014

Real Time Ancillary Service Imbalance	\$ in Thousands
Real-Time AS Imbalance Payment Amount	(\$79.07)
Load Allocated AS Imbalance Revenue Neutrality Amount	\$79.06
Total Charges	\$79.06

Real-Time Ancillary Service Imbalance Settlements increased from September 2014 to October 2014. Total payments for the month of October 2014 were \$79,068 compared to a payment of \$51,094 in September 2014.

5 of the 31 days in October 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 October 5th. The total Real Time Ancillary Service Imbalance payments on that day were \$10,569.23.



Net Allocation to Load – October 2014

Market-Based Allocation	\$ in Millions
CRR Auction Revenue Disbursement Settlement	(\$30.75)
Balancing Account Proceeds Settlement	(\$1.00)
Net Reliability Unit Commitment Settlement	(\$0.03)
Ancillary Services Settlement	\$41.72
Reliability Must Run Settlement (incl. RMR for Capacity)	\$0.00
Real-Time Revenue Neutrality Settlement	\$1.42
Emergency Energy Settlement	\$0.33
Base Point Deviation Settlement	(\$0.34)
ORDC Settlement	\$0.08
Total	\$11.43
Fee Allocation	
ERCOT Administrative Fee Settlement	\$12.83
Net Allocated to Load	\$24.26

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

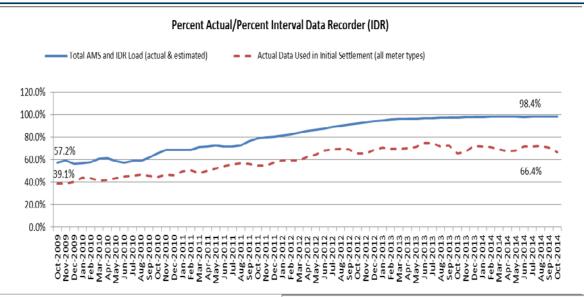
October 2014 was a charge of \$24.26M, compared to:

- A charge of \$12.80M in September 2014
- A charge of \$15.02M in October 2013



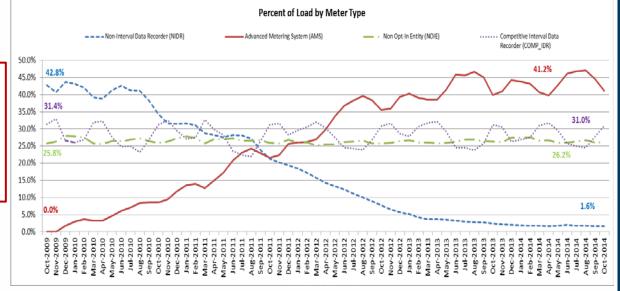


Advanced Meter Settlement Impacts – October 2014



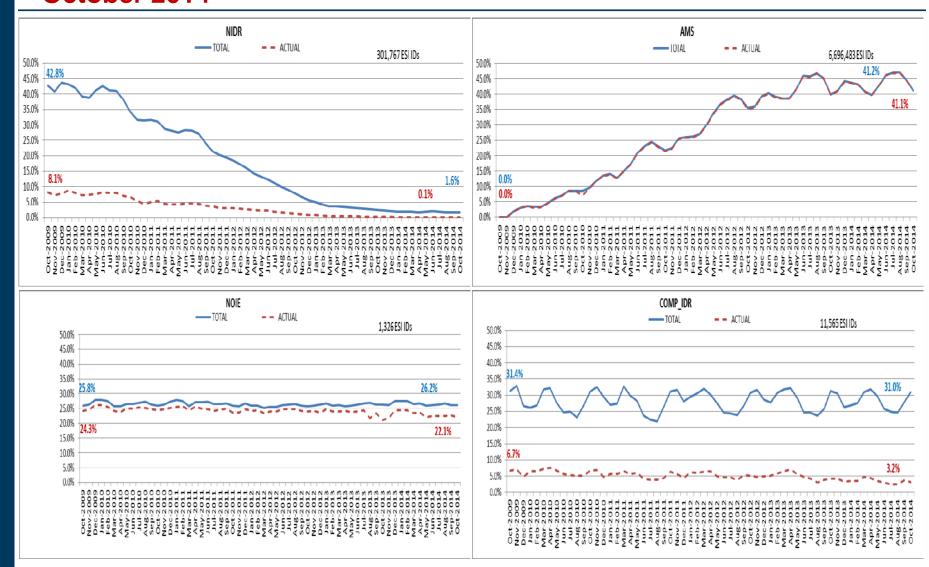
October 2014: At month end, settling 6.6M ESIIDs using Advanced Meter data.

October 2014: 98.4% 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 – October 2014





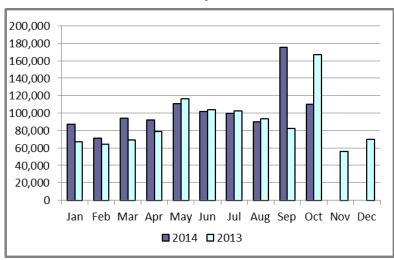
Retail Transaction Volumes – Summary – October 2014

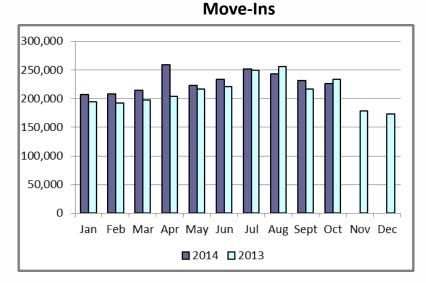
	Year-	To-Date	Transactions Received			
Transaction Type	October 2014	October 2013	October 2014	October 2013		
Switches	1,031,394	944,209	110,465	166,882		
Acquisition	0	0	0	0		
Move - Ins	2,298,612	2,180,553	226,283	233,469		
Move - Outs	1,145,859	1,162,171	111,857	115,469		
Continuous Service Agreements (CSA)	543,567	503,933	45,039	71,847		
Mass Transitions	5,614	0	0	0		
Total	5,025,046	4,790,866	493,644	587,667		



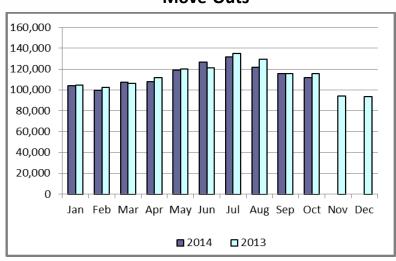
Retail Transaction Volumes – Summary – October 2014

Switches/Acquisitions

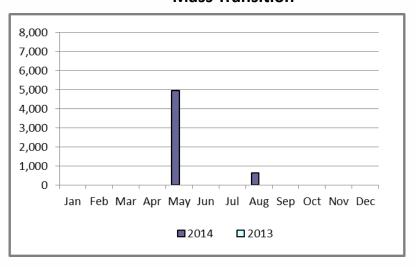




Move-Outs

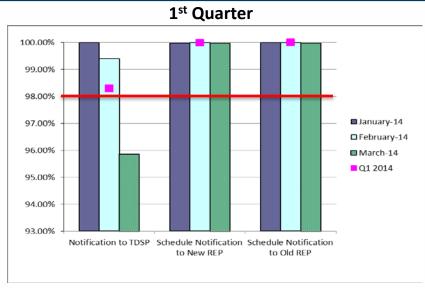


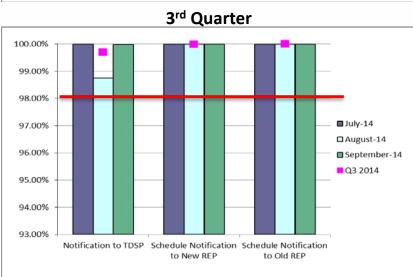
Mass Transition

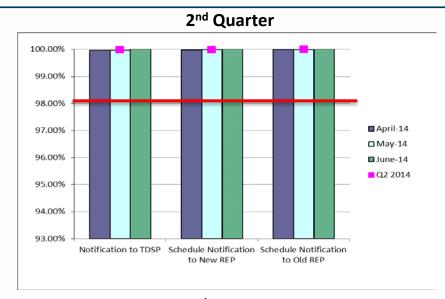


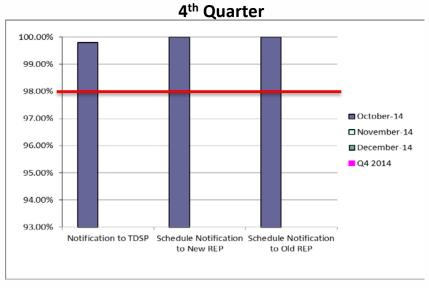


Retail Performance Measures – Switch – October 2014



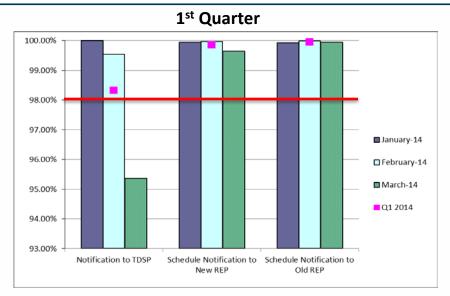




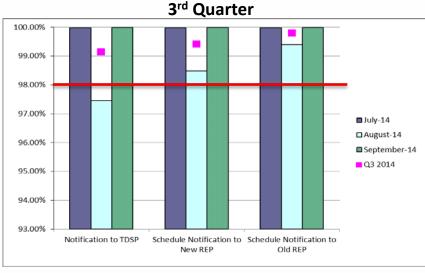


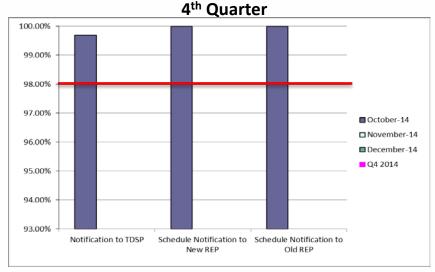


Retail Performance Measures (Same Day Move-In) - October 2014



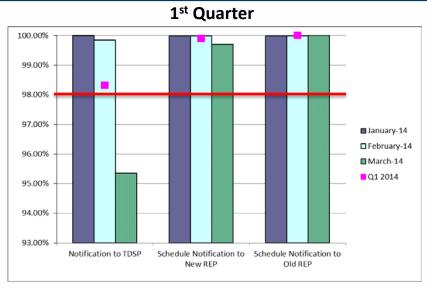


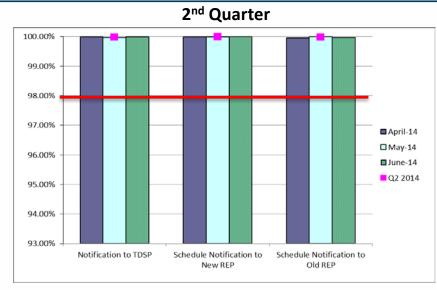


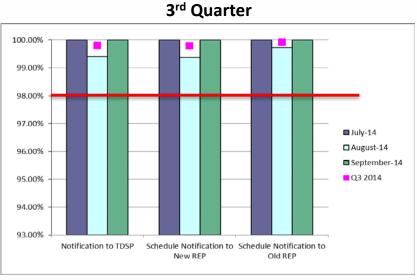


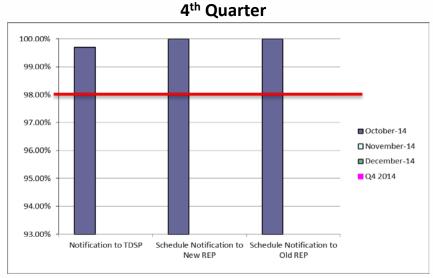


Retail Performance Measures (Standard Move-In) - October 2014











Projects Report

Impact Metric Tolerances		_				_				$\overline{}$	$\overline{}$
Uniforwind Uniforminate Unifor				2014 Project Fundin	g	\$	26,000,000				
Uniforwind Uniforminate Unifor						2	014 Portfolio	To	otal Portfolio		
Forest F		Impact Metric Tolerances	1		1					4 '	
Green = No more than 4.9% unfavorable variance Projects Not Yet Started (Count = 6) \$ 47.500 \$ 402.934 Projects Red = Unfavorable variance between 4.9% and 9.9% Projects Completed (Count = 24) \$ 5.287.249 \$ 5.826.050 Projects Completed (Count = 24) \$ 2.887.249 \$ 5.826.050 Projects In Initiation Phase (Count = 14) Projects In Initiation Phase (Count = 16) Projects In Initiation Phase (Cou		e variances are represented as negative numbers within the	Projects In Flight	t/On Hold (Count = 63)	/	\$	24,638,445	\$	57,962,885	1	
Red = Unfavorable variance more than 9.9% Separating Reductions Required to Maintain Capital Bude S. (1,573,194) N/A		No more than 4.9% unfavorable variance	Projects Not Yet	Started (Count = 6)		\$	47,500	\$	402,934	1	
Spending Reductions Required to Maintain Capital Budg \$ (1,573,194) N/A			Projects Comple	ted (Count = 24)		\$	2,887,249	\$	5,826,050		
Project Number Projects in Initiation Phase (Count = 14)	- Kea – Om	favorable variance more than 5.5%	Spending Reduct	tions Required to Main	ıtain Capital Budç	\$	(1,573,194)	ļ	N/A		
Number		!	TOTAL		100	\$	26,000,000	\$	64,191,869		
Number											
193.01 Infrastructure Performance Management Various 2014 CMM NPRRS and SCRS TeD		Projects in Initiation Phase (Count = 14)									
Various 2014 CMM NPRRs and SCRa Now Irron LF Application to High Availability Environment Fib. Symposium Call Center Replacement Fib.	141-01	Production Virtualization									
TDD	153-01	Infrastructure Performance Management	1								
Title	Various	2014 CMM NPRRs and SCRs									
155-01 Replace NZN System NPRR550 NPRR550 Nessage for Confirmed E-Tags NPRR581 NPRR588 NPRF58	TBD	Move iTron LF Application to High Availability Environment									
NPRR592	TBD	Symposium Call Center Replacement	1								
NPRR559	155-01	Replace N2N System	1								
NPRR589 Clarifications for PV Generation Resources NPRR597 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 Posting Results of Real-Time Data in a Display Format Posting Results of Real-Time Data in a Display Format Project (Exposure Calculations for NOIE Options Linked to RTM project Number Projects in Planning Phase (Count = 16) Baseline Phase Start Baseline Phase Finish Scheduled Phase Finish Projects in Planning Phase (Count = 16) Baseline Phase Finish Scheduled Phase Finish Projects (Projects in Planning Phase (Count = 16) Projects in Planning Phase (Count = 16) Projects (Projects (Projects in Planning Phase (Count = 16) Projects (Projects (Proj	NPRR543	Message for Confirmed E-Tags	í								
Ditize Initial Estimated Liability (IEL) Only During Initial Market Activity	NPRR559	Revisions to MCE Calculation	Í								
Activity Inclusion of Incremental Exposure in Mass Transitions to Counter Parties that are Registered as QSEs and LSEs and Provide POLR Service	NPRR588										
Inclusion of Incremental Exposure in Mass Transitions to Counter Parties that are Registered as QSEs and LSEs and Provide POLR Service	NPRR597										
NPRR615 PVGR Forecasting SCR775 Posting Results of Real-Time Data in a Display Format SCR778 Credit Exposure Calculations for NOIE Options Linked to RTM PTP Obligations Scheduled Scheduled Phase Finish Scheduled Pth	NPRR601	Inclusion of Incremental Exposure in Mass Transitions to Counter- Parties that are Registered as QSEs and LSEs and Provide POLR									
SCR775 Posting Results of Real-Time Data in a Display Format SCR778 Credit Exposure Calculations for NOIE Options Linked to RTM PTP Obligations Project Number Projects in Planning Phase (Count = 16) Baseline Phase Start Baseline Phase Finish Scheduled Go-Live Date Finish Scheduled Finish S	NPRR615		1								
Project Number Projects in Planning Phase (Count = 16) Baseline Phase Start Baseline Phase Finish Scheduled Go-Live Date Finish Scheduled Finish Scheduled Phase Finish Phase Finish Pase Phase P	SCR775	Posting Results of Real-Time Data in a Display Format									
Projects in Planning Phase (Count = 16) Baseline Phase Start Baseline Phase Finish Go-Live Date Scheduled Phase Finish Go-Live Date Finish Scheduled Phase Finish Go-Live Date Finish Scheduled Phase Finish Go-Live Date Scheduled Phase Finish Go-Live Date	SCR778		1								
Number Projects in Planning Phase (Count = 16) Start Baseline Phase Finish Go-Live Date Finish Schedule impact Budget impact	.									['	
089-01 Information Technology Change Management 4/10/2013 4/2/2014 TBD 10/22/2014 1 -56% 1 -16% 106-01 MP Online Data Entry - Ph 1 10/9/2013 3/5/2014 TBD 1/9/2015 4 -210% 1% 120-01 IT Production Hardening 2/12/2014 9/24/2014 TBD 1/9/2015 4 -210% 1% 120-01 IT Production Hardening 2/12/2014 9/24/2014 TBD 1/9/2015 4 -210% 1% 127-01 SQL Server 2012 Upgrade / Cluster Consolidation 3/6/2014 8/27/2014 TBD 12/3/2014 2 -56% 25% 129-01 Access and Roles Management 7/1/2014 10/1/2014 TBD 12/3/2014 2 -68% 2 -7% 134-01 Privileged Account Management 6/5/2014 11/19/2014 TBD 11/19/2014 0% 0% 142-01 Implementation of NERC BAL-TRE-001 Regional Standard 8/14/2014 12/19/2014 TBD 12/19/2014 0% 0%	Number	· · · · · · · · · · · · · · · · · · ·	Start		Go-Live Date		Finish			Bu	
106-01 MP Online Data Entry - Ph 1								1			
120-01 IT Production Hardening 2/12/2014 9/24/2014 TBD 1/7/2015 1 -46% 0% 127-01 SQL Server 2012 Upgrade / Cluster Consolidation 3/6/2014 8/27/2014 TBD 12/3/2014 2 -56% 25% 129-01 Access and Roles Management 7/1/2014 10/1/2014 TBD 12/3/2014 2 -68% 2 -7% 134-01 Privileged Account Management 6/5/2014 11/19/2014 TBD 11/19/2014 0% 0% 142-01 Implementation of NERC BAL-TRE-001 Regional Standard 8/14/2014 12/19/2014 TBD 12/19/2014 0% 12% 143-01 OSI Pi Visualization Enhancements 9/15/2014 12/10/2014 TBD 12/10/2014 0% -2% 144-01 OC-48 Replacement with DWDM 9/29/2014 2/4/2015 TBD 2/4/2015 0% 6% 150-01 Backup Resiliency 10/24/2014 12/5/2014 TBD 12/5/2014 0% 0% Various Market System Enhancements 2015 10/23/2014 1/14/2015 TBD 1/14/2015 0% 0% NPRR500 Posting of Generation that is Off but Available 10/8/2014 12/27/2014 TBD 12/31/2014 1 -5% 14% NPRR626 Reliability Deployment Price Adder 10/23/2014 1/14/2015 TBD 1/14/2015 0% NA See #149-01 SCR772 New Extract for Five Minute Interval Settlement Data 9/19/2014 10/29/2014 TBD 10/29/2014 0% 0% 16%		-i						1		1	
127-01 SQL Server 2012 Upgrade / Cluster Consolidation 3/6/2014 8/27/2014 TBD 12/3/2014 2 -56% 25% 129-01 Access and Roles Management 7/1/2014 10/1/2014 TBD 12/3/2014 2 -68% 2 -7% 134-01 Privileged Account Management 6/5/2014 11/19/2014 TBD 11/19/2014 0% 0% 0% 142-01 Implementation of NERC BAL-TRE-001 Regional Standard 8/14/2014 12/19/2014 TBD 12/19/2014 0% 0 12% 143-01 OSI Pi Visualization Enhancements 9/15/2014 12/10/2014 TBD 12/19/2014 0% -2% 144-01 OC-48 Replacement with DWDM 9/29/2014 2/4/2015 TBD 12/4/2015 0% 6% 150-01 Backup Resiliency 10/24/2014 12/5/2014 TBD 12/5/2014 0% 0% Various Market System Enhancements 2015 10/23/2014 1/14/2015 TBD 1/14/2015 0% 0% NPRR500 Po		.;						4			
129-01 Access and Roles Management 7/1/2014 10/1/2014 TBD 12/3/2014 2 -68% 2 -7% 134-01 Privileged Account Management 6/5/2014 11/19/2014 TBD 11/19/2014 0% 0% 142-01 Implementation of NERC BAL-TRE-001 Regional Standard 8/14/2014 12/19/2014 TBD 12/19/2014 0% 0% 143-01 OSI Pi Visualization Enhancements 9/15/2014 12/10/2014 TBD 12/10/2014 0% -2% 144-01 OC-48 Replacement with DWDM 9/29/2014 2/4/2015 TBD 12/4/2015 0% 6% 150-01 Backup Resiliency 10/24/2014 12/5/2014 TBD 12/5/2014 0% 0% Various Market System Enhancements 2015 10/23/2014 1/14/2015 TBD 1/14/2014 0% 0% NPRR500 Posting of Generation that is Off but Available 10/8/2014 12/27/2014 TBD 1/14/2015 0% 0% 0% NPRR626 Reliability Deployment Price Adder		.;						1			
134-01 Privileged Account Management 6/5/2014 11/19/2014 TBD 11/19/2014 0% 0% 142-01 Implementation of NERC BAL-TRE-001 Regional Standard 8/14/2014 12/19/2014 TBD 12/19/2014 0% 12% 143-01 OSI Pi Visualization Enhancements 9/15/2014 12/19/2014 TBD 12/19/2014 0% -2% 144-01 OC-48 Replacement with DWDM 9/29/2014 2/4/2015 TBD 2/4/2015 0% 6% 150-01 Backup Resiliency 10/24/2014 12/5/2014 TBD 12/5/2014 0% 0% Various Market System Enhancements 2015 10/23/2014 1/14/2015 TBD 1/14/2015 0% 0% NPRR500 Posting of Generation that is Off but Available 10/8/2014 12/27/2014 TBD 12/31/2014 1 -5% 14% NPRR626 Reliability Deployment Price Adder 10/23/2014 11/14/2015 TBD 1/14/2015 0% NA See #149-01 SCR772 New Extract for Five Minute Interval Sett											
142-01 Implementation of NERC BAL-TRE-001 Regional Standard 8/14/2014 12/19/2014 TBD 12/19/2014 0% 12% 143-01 OSI Pi Visualization Enhancements 9/15/2014 12/10/2014 TBD 12/10/2014 0% -2% 144-01 OC-48 Replacement with DWDM 9/29/2014 2/4/2015 TBD 2/4/2015 0% 6% 150-01 Backup Resiliency 10/24/2014 12/5/2014 TBD 12/5/2014 0% 0% Various Market System Enhancements 2015 10/23/2014 1/14/2015 TBD 1/14/2015 0% 0% NPRR500 Posting of Generation that is Off but Available 10/8/2014 12/27/2014 TBD 12/31/2014 1 -5% 14% NPRR626 Reliability Deployment Price Adder 10/23/2014 1/14/2015 TBD 1/14/2015 0% NA See #149-01 SCR772 New Extract for Five Minute Interval Settlement Data 9/19/2014 10/29/2014 TBD 10/29/2014 0% 16%								2		2	<u>.</u>
143-01 OSI Pi Visualization Enhancements 9/15/2014 12/10/2014 TBD 12/10/2014 0% -2% 144-01 OC-48 Replacement with DWDM 9/29/2014 2/4/2015 TBD 2/4/2015 0% 6% 150-01 Backup Resiliency 10/24/2014 12/5/2014 TBD 12/5/2014 0% 0% Various Market System Enhancements 2015 10/23/2014 1/14/2015 TBD 1/14/2015 0% 0% NPRR500 Posting of Generation that is Off but Available 10/8/2014 12/27/2014 TBD 12/31/2014 1 -5% 14/6 NPRR626 Reliability Deployment Price Adder 10/23/2014 1/14/2015 TBD 1/14/2015 0% NA See #149-01 SCR772 New Extract for Five Minute Interval Settlement Data 9/19/2014 10/29/2014 TBD 10/29/2014 0% 16%											
144-01 OC-48 Replacement with DWDM 9/29/2014 2/4/2015 TBD 2/4/2015 0% 6% 150-01 Backup Resiliency 10/24/2014 12/5/2014 TBD 12/5/2014 0% 0% Various Market System Enhancements 2015 10/23/2014 1/14/2015 TBD 1/14/2015 0% 0% NPRR500 Posting of Generation that is Off but Available 10/8/2014 12/27/2014 TBD 12/31/2014 1 -5% 14% NPRR626 Reliability Deployment Price Adder 10/23/2014 1/14/2015 TBD 1/14/2015 0% NA See#149-01 SCR772 New Extract for Five Minute Interval Settlement Data 9/19/2014 10/29/2014 TBD 10/29/2014 0% 0%		<u></u>									
150-01 Backup Resiliency 10/24/2014 12/5/2014 TBD 12/5/2014 0% 0% Various Market System Enhancements 2015 10/23/2014 1/14/2015 TBD 1/14/2015 0% 0% NPRR500 Posting of Generation that is Off but Available 10/8/2014 12/27/2014 TBD 12/31/2014 1 -5% 14% NPRR626 Reliability Deployment Price Adder 10/23/2014 1/14/2015 TBD 1/14/2015 0% NA See #149-01 SCR772 New Extract for Five Minute Interval Settlement Data 9/19/2014 10/29/2014 TBD 10/29/2014 0% 0 16%											
Various Market System Enhancements 2015 10/23/2014 1/14/2015 TBD 1/14/2015 0% 0% NPRR500 Posting of Generation that is Off but Available 10/8/2014 12/27/2014 TBD 12/31/2014 1 -5% 14% NPRR626 Reliability Deployment Price Adder 10/23/2014 1/14/2015 TBD 1/14/2015 0% NA See #149-01 SCR772 New Extract for Five Minute Interval Settlement Data 9/19/2014 10/29/2014 TBD 10/29/2014 0% 16%											
NPRR500 Posting of Generation that is Off but Available 10/8/2014 12/27/2014 TBD 12/31/2014 1 -5% 14% NPRR626 Reliability Deployment Price Adder 10/23/2014 1/14/2015 TBD 1/14/2015 0% NA See #149-01 SCR772 New Extract for Five Minute Interval Settlement Data 9/19/2014 10/29/2014 TBD 10/29/2014 0% 16%											
NPRR626 Reliability Deployment Price Adder 10/23/2014 1/14/2015 TBD 1/14/2015 0% NA See #149-01 SCR772 New Extract for Five Minute Interval Settlement Data 9/19/2014 10/29/2014 TBD 10/29/2014 0% 16%					.ii						<u></u>
SCR772 New Extract for Five Minute Interval Settlement Data 9/19/2014 10/29/2014 TBD 10/29/2014 0% 16%								1			<u></u>
										NA	
SCR777 Bilateral CRR Interface Enhancement 8/20/2014 9/19/2014 TBD 10/24/2014 -116% 3%		<u> </u>									<mark></mark>
	SCR777	Bilateral CRR Interface Enhancement	8/20/2014	9/19/2014	TBD		10/24/2014	1	-116%		3%



Project Number	Projects in Execution Phase (Count = 20)	Baseline Phase Start	Baseline Go-Live Target	Scheduled Go-Live Date	Scheduled Phase Finish	Schedule Impact		Budget Impact	
10052_01	Settlement System Upgrade	1/25/2012	12/23/2014	12/6/2014	4/8/2015		1%		-4%
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	1/7/2015	2	-324%	2	-211%
066-01	Planning Site Transition to MIS	7/2/2014	10/16/2014	10/16/2014	12/3/2014		0%		8%
074-02	Cyber Security Project #9	9/11/2014	11/28/2014	11/28/2014	11/28/2014		0%	2	-8%
097-01	ABB MMS OS Technology Refresh	8/15/2014	3/26/2015	3/26/2015	5/8/2015		0%		1%
104-01	Disaster Recovery: S&B, RTL, MDT	10/9/2014	1/18/2015	1/18/2015	1/28/2015		0%		0%
115-01	Cyber Security Project #14	6/30/2014	1/15/2015	1/15/2015	3/6/2015		0%		0%
116-01	Collage Replacement	2/6/2014	9/22/2014	12/9/2014	1/2/2015	4	-34%	2	-52%
121-01	2013/2014 Network Refresh	5/14/2014	10/17/2014	10/20/2014	11/19/2014		-1%		-2%
122-01	Infoblox DNS/DHCP	5/21/2014	11/5/2014	11/20/2014	12/2/2014	1	-8%		20%
128-0x	Capital Efficiencies and Enhancements - 2014	1/1/2014	12/31/2014	12/31/2014	12/31/2014		0%		-3%
130-01	Electronic Crisis Communications Enhancements	6/19/2014	12/12/2014	2/12/2015	3/25/2015	1	-35%		-3%
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%		9%
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%
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
SCR779	Increase to the CRR Auction Transaction Limit	9/29/2014	2/13/2015	2/11/2015	3/4/2015		1%		4%
									-



Project Number	Projects in Stabilization (Count = 12)	Baseline Execution Phase Start	Baseline Go-Live Target	Actual Go-Live Date	Scheduled Execution Phase Finish	Sche	dule Impact	Budget Impact	
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
NPRR571	ERS Weather-Sensitive Loads Requirements	4/8/2014	9/30/2014	9/30/2014	10/31/2014		0%	NA	See #128-01
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	-15%
SCR756	MarkeTrak Enhancements - Remaining SCR756 Items	2/5/2014	8/17/2014	8/17/2014	9/19/2014		0%		7%
SCR774	Enhancement to Outage Scheduler and Reports	2/26/2014	9/26/2014	9/26/2014	10/31/2014		0%	NA	See #128-01
047-01	CMSDK/MIR Replacement	4/24/2013	12/8/2013	4/15/2014	10/22/2014	2	-56%	2	-54%
083-01	Centralized Application Log Management	8/28/2013	5/7/2014	3/27/2014	8/27/2014		16%		0%
107-01	IBM AIX Operating System Upgrades	1/29/2014	5/2/2014	5/2/2014	12/17/2014		0%		14%
110-01	Taylor Control Room Upgrade	2/19/2014	7/7/2014	6/4/2014	11/5/2014		23%		9%
119-01	CREZ Voltage Control and Coordination	3/6/2014	4/18/2014	4/18/2014	10/1/2014		0%		36%
128-04	Reactive Test Forms Revision	5/19/2014	9/26/2014	9/26/2014	10/31/2014		0%	NA	See #128-01
	<u> </u>								
Project Number	Projects On Hold (Count = 1)	Forecast Start Date	Baseline Phase Finish	Scheduled Go-Live Date	Scheduled Phase Finish	Sche	dule 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 (Count =24)	Baseline Execution Phase Start	Baseline Go-Live Target	Actual Go-Live Date	Actual Execution Phase Finish	Schedule Status		tus Total Variand	
PROJECT	S COMPLETED IN 2014 (Count = 24) Sorted by Proje								-1%
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%
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
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%
SCR769	CRRAH Digital Certificate New Role for Read Only Access	3/20/2014	8/1/2014	8/1/2014	9/10/2014		0%		14%
Various	2014 Market System Enhancements	1/8/2014	6/1/2014	6/1/2014	9/26/2014		0%		-18%
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%		-3%
077-01	Contract Lifecycle Management	9/11/2013	5/5/2014	8/20/2014	10/8/2014	2	-45%		-3%
101-01	Emergency Notification System Hardware Refresh	11/13/2013	1/24/2014	12/20/2013	1/24/2014		48%		-2%
108-01	Alstom Load Forecasting Upgrade	11/20/2013	4/23/2014	4/16/2014	5/14/2014		4%		4%
113-01	Dev Hardware Refresh and Virtualization Expansion	11/13/2013	1/24/2014	1/9/2014	2/28/2014		20%		-2%
114-01	Lawson Security	1/29/2014	2/17/2014	2/17/2014	3/5/2014		0%	2	-36%
118-01	Mitigation Plan RTCA Enhancements	2/5/2014	4/18/2014	4/17/2014	5/8/2014		1%		0%
125-01	VSAT/TSAT Upgrade	3/27/2014	7/16/2014	6/10/2014	7/2/2014		32%		35%
131-01	Email Gateway Refresh	7/23/2014	9/17/2014	9/17/2014	9/17/2014		0%		41%
132-01	Client Digital Certificate Upgrade	6/12/2014	8/17/2014	8/17/2014	9/17/2014		0%	2	-14%
133-01	Testing Environment Management	8/27/2014	10/15/2014	10/15/2014	10/15/2014		0%		20%



			Footnotes						
			1 - Current phase took long	er than expected, result	ting in additional funding	and/or tin	ne required		
			2 - Current phase requiring	more labor than expect	ed, resulting in additional	funding	and/or time requ	uired	
			3 - Project placed on hold						
			4 - Resource constraints re	sulted in delay to curre	nt phase				
			5 - Project was on an urger	nt timeline to meet a pre-	-defined target implement	ation dat	e. Compressed	project p	lanning
			required budget estimation	before full requirements	s were known. Additiona	al effort i	needed, resultin	g in addit	ional funding.
			NA - Metric not calculated b						
			- it is reported at the - it is an administrati	parent project level, or					
			- it is an administrati	ve project					
Project Number	Projects Not Yet Started (Count = 6)	Forecast Start Date							
PROJECT	S NOT YET STARTED (Count = 6) Sorted by	Start Date							
NPRR519	Exemption of ERS-Only QSEs from Collateral and Capitalization Requirements	Nov-2014							
NPRR573	Alignment of PRC Calculation	Nov-2014							
NPRR581	Add Fast Responding Regulation Service as a Subset of Regulation Service	Nov-2014							
SCR771	ERCOT System Change Allowing Independent Master QSE to Represent Split Generation Resources	Nov-2014							
TBD	Browser Upgrade	Nov-2014							
NPRR210	Wind Forecasting Change to P50, Sync with PRR841	Dec-2014							
									•

