

# **ERCOT Monthly Operational Overview (February 2014)**

ERCOT Public March 15, 2014

# **Grid Operations & Planning**

#### **Summary – February 2014**

#### Operations

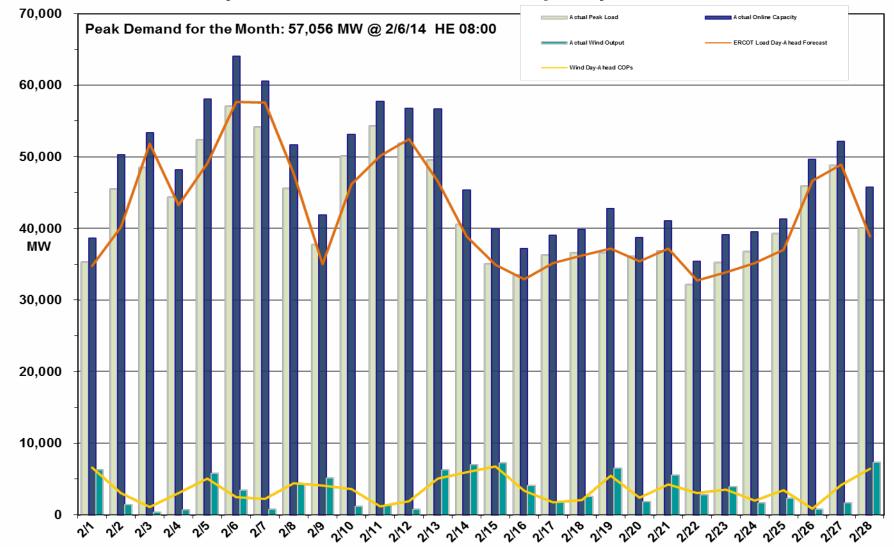
- The peak demand of 57,056 MW on February 6<sup>th</sup> was less than the mid-term forecast peak of 57,683 MW but greater than the February 2013 actual peak demand of 40,407 MW. The instantaneous load on February 6<sup>th</sup> was 57,582 MW.
- Day-ahead load forecast error for February was 3.70%
- ERCOT issued nine notifications.
  - Two Operating Condition Notices (OCN), and two advisories, and two Watches for extreme cold temperatures
  - One Advisory for Physical Responsive Capability (PRC) below 3000 MW.
  - One Advisory and one watch for DAM timeline deviation.

#### Planning Activities

- 219 active generation interconnection requests totaling over 55,300 MW, including 26,700 MW of wind generation as of February 28th, 2014. Nine more requests and 3,000 more MW from January 31, 2014.
- 11,065 MW wind capacity in commercial operation February 28, 2014; 148 less MW than January 31, 2014.



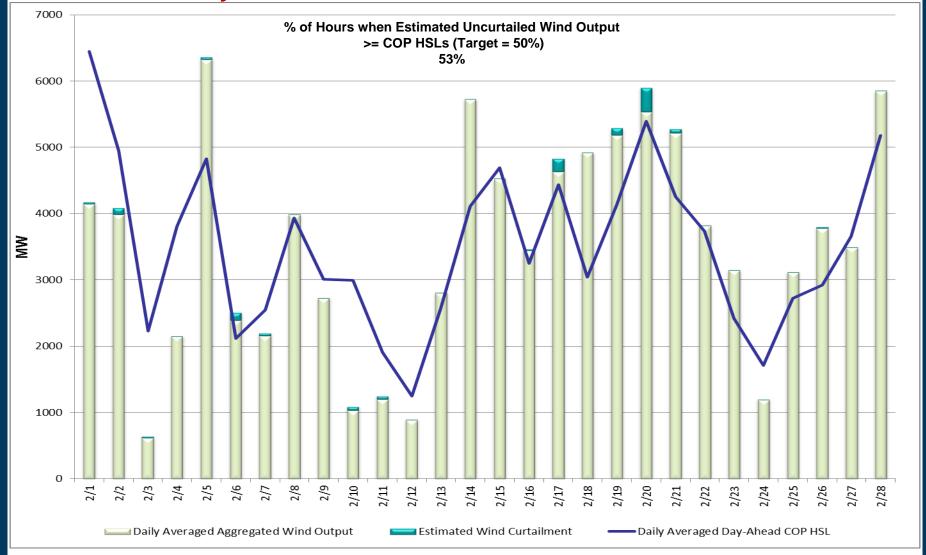
# Daily Peak Demand: Hourly Average Actual vs. Forecast, Wind Day-Ahead COPs & On-line Capacity at Peak – Feb. 2014





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

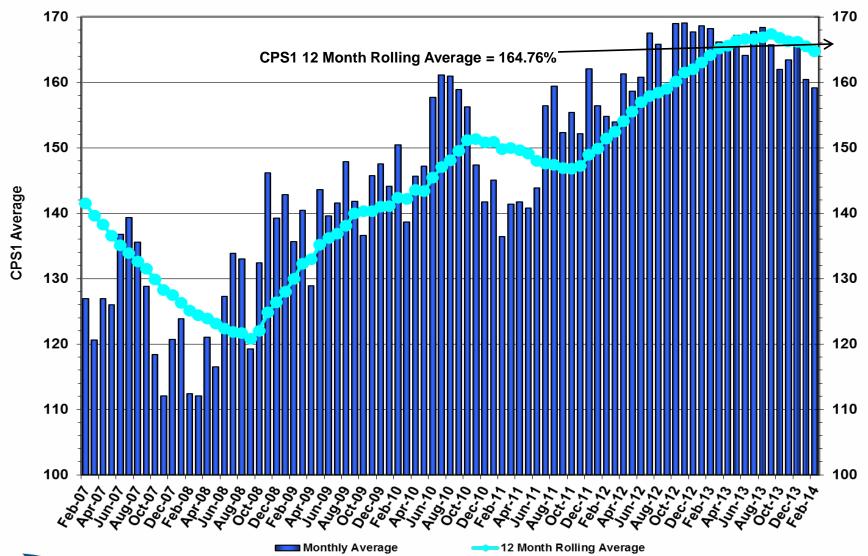
Hours - February 2014





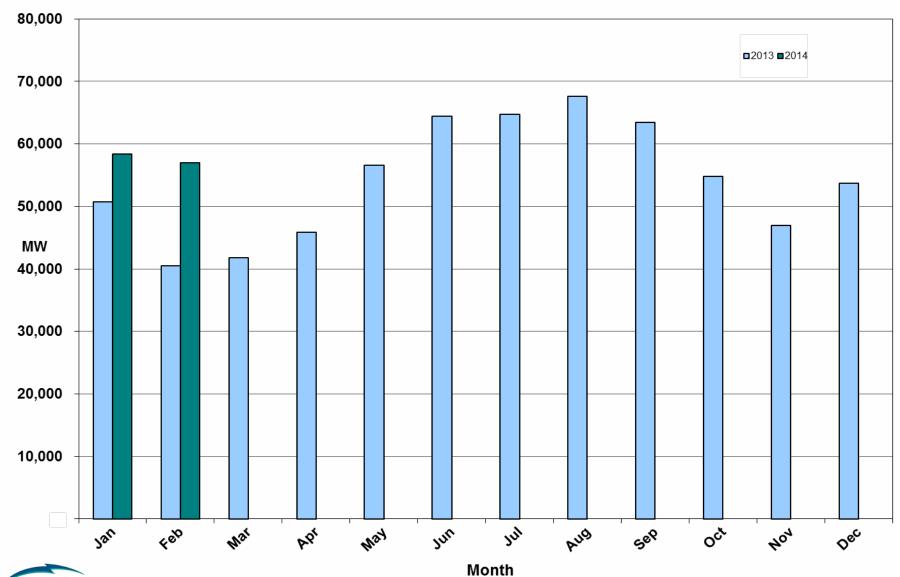
Note: QSEs must use the AWST 50% probability of exceedance forecast as the HSL in their COPs

#### **ERCOT's CPS1 Monthly Performance – February 2014**



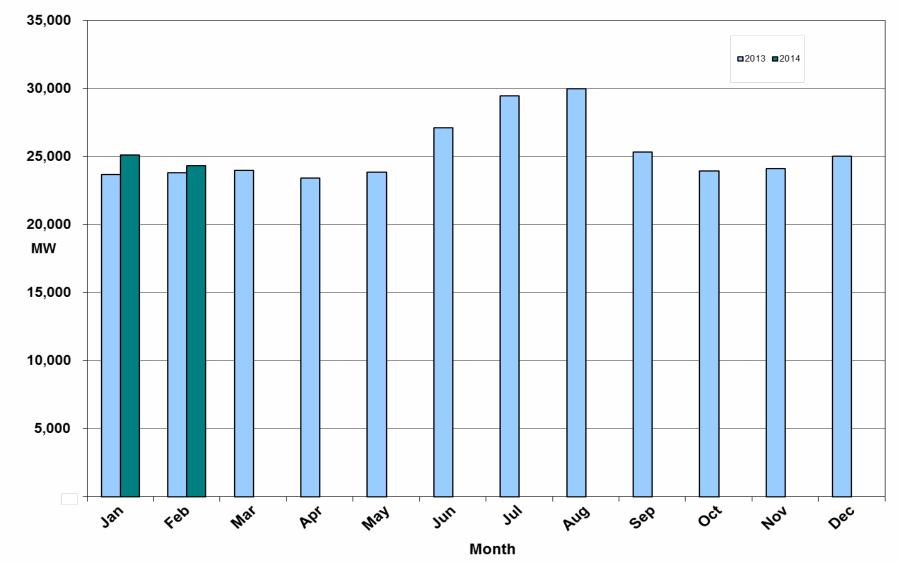


#### **Monthly Peak Actual Demand – February 2014**





#### **Monthly Minimum Actual Demand – February 2014**





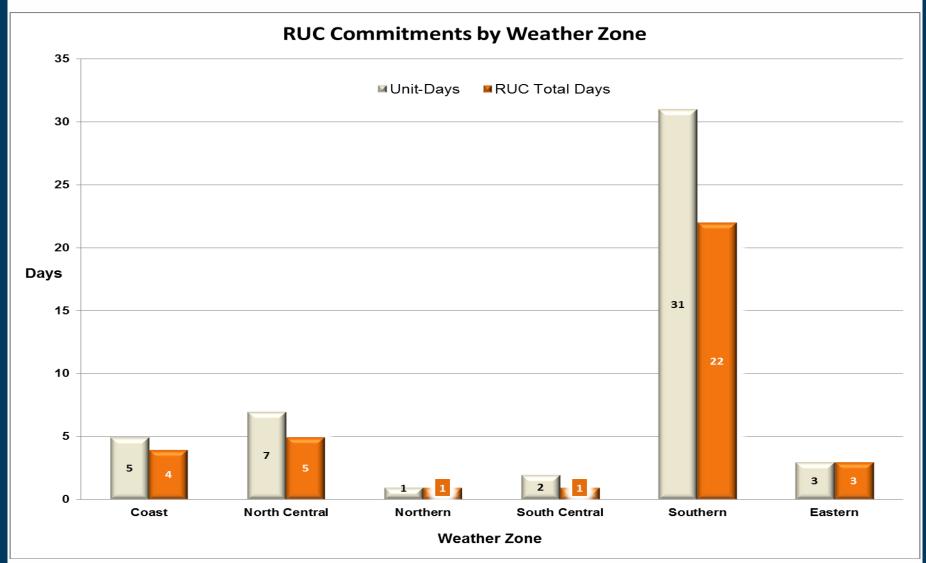
#### **Day-Ahead Load Forecast Performance – February 2014**

# 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		2014 .PE
Average Annual MAPE	2.83	3.02	2.86	3.45	3.	70
Lowest Monthly MAPE	1.63	2.51	2.07	3.19	Lowest Daily MAPE	<b>1.28</b> February – 16
Highest Monthly MAPE	3.55	3.49	3.50	3.70	Highest Daily MAPE	<b>7.60</b> February – 02



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





#### **Generic Transmission Limits (GTLs) – February 2014**

GTLs	Feb 13 Days GTLs	Dec 13 Days GTLs	Jan 14 Days GTLs	Feb 14 Days GTLs	Last 12 Months Total Days (Mar13 - Feb14)
North – Houston	0	0	0	0	0
West – North	5	1	3	0	29
Valley Import	0	0	0	2	3
SOP110	0	1	0	0	1

**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 – February 2014**

- OCNs issued for extreme cold temperatures
  - Issued 2/4 for later in week
  - Issued 2/9 for early in week
- Advisories issued for extreme cold temperatures
  - Issued 2/5 for later in week
  - Issued 2/10 and to last through morning of 2/12
- Advisories issued for delayed posting of DAM solutions.
  - Issued once (2/25) for operating day 2/26
- Advisories issued for Physical Responsive Capability (PRC) below 3000 MW.
  - Issued once (2/10)
- Watches issued for extreme cold temperatures
  - Issued 2/2 through morning of 2/3
  - Issued 2/6 to last through mid-day 2/7
- Watch issued for DRUC time deviation
  - Issued 2/25 for operating day 2/26



#### **Significant Events – February 2014**

- Conservation in Lower Rio Grande Valley (February 6 7)
  - Increase demand due to cold weather
  - ERCOT and TSP managing to a lower Generic Transmission Limit
  - Need for public appeal for energy conservation in Lower Rio Grande Valley



#### Lake Levels Update – March 1, 2014

Surface Water & (MW)	*Level @ Full Conservation Pool	*Level on Jan 1, 2011	*Level on Oct 7, 2011	*Level on March 1, 2014
Lake Texana (56)	44.50	41.00	32.81	40.56
Bardwell Lake (312)	421.00	420.71	416.23	418.02
Lake Colorado City (407)	2,070.20	2057.33	2052.4	2049.73
Lake Ray Hubbard (916)	435.50	432.37	429.22	428.35
Lake Granbury (983)	693.00	691.90	686.27	683.75
Lake Houston (1016)	41.73	42.10	36.76	42.50
Twin Oaks Reservoir (1616)	400	398.87	398.27	400.12
Lake Limestone (1689)	363	359.03	354	363.00
Martin Lake (2425)	306	300.48	295.06	305.90



<sup>\*</sup> In Feet above Mean Sea Level

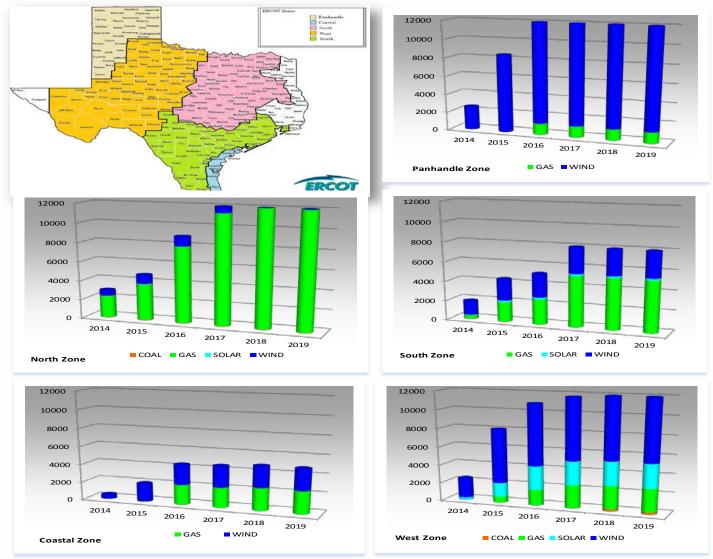
#### Planning Summary – February 2014

- ERCOT is currently tracking 219 active generation interconnection requests totaling over 55,300 MW. This includes over 26,700 MW of wind generation.
- ERCOT is currently reviewing proposed transmission improvements with a total cost of \$917.7 Million.
- Transmission Projects endorsed in 2013 total \$349.8 Million. No transmission projects endorsed in 2014 (January & February 2014).
- All projects (in engineering, routing, licensing and construction) total approximately \$4.4 Billion.
- Transmission Projects energized in 2014 total about \$123.3 Million.



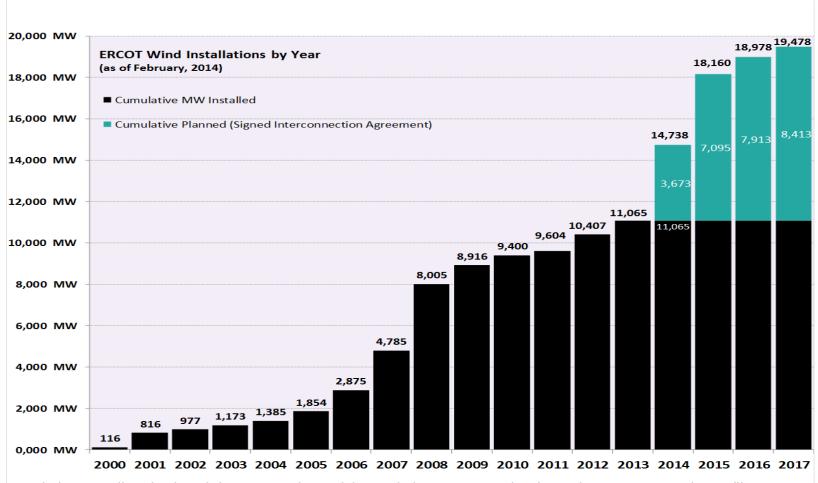
#### Cumulative Installed MW Capacity of Interconnection Requests by Zone –

February 2014





#### Wind Generation – February 2014

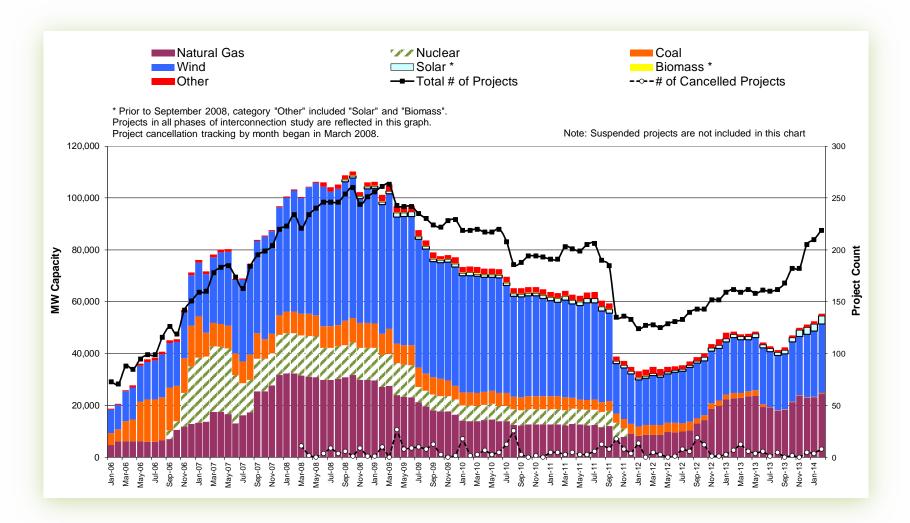


The data presented here is based upon the latest registration data provided to ERCOT by the resource owners and can change without notice. Any capacity changes will be reflected in current and subsequent years' totals. Scheduling delays will also be reflected in the planned projects as that information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

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

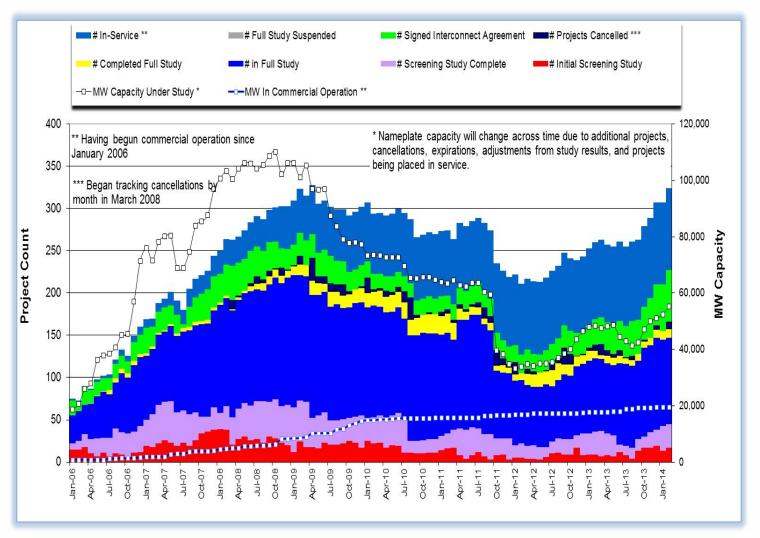


#### **Generation Interconnection Activity by Fuel – February 2014**





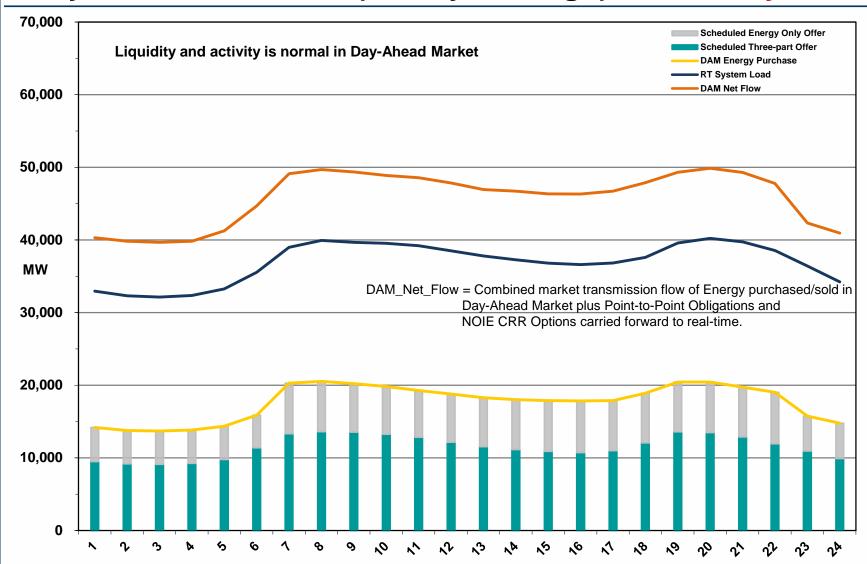
#### **Generation Interconnection Activity by Project Phase – February 2014**





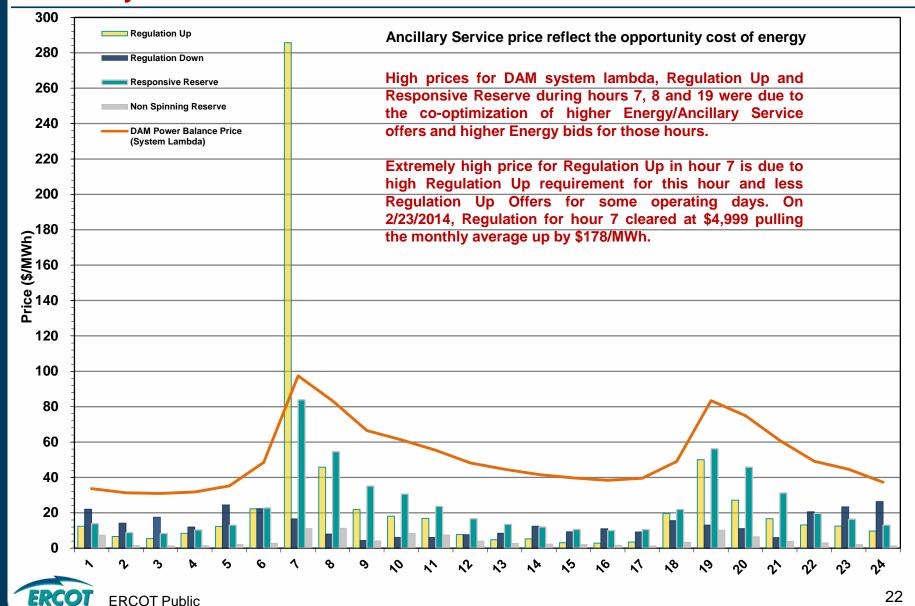
# **Market Operations**

# Day-Ahead Schedule (Hourly Average) – February 2014

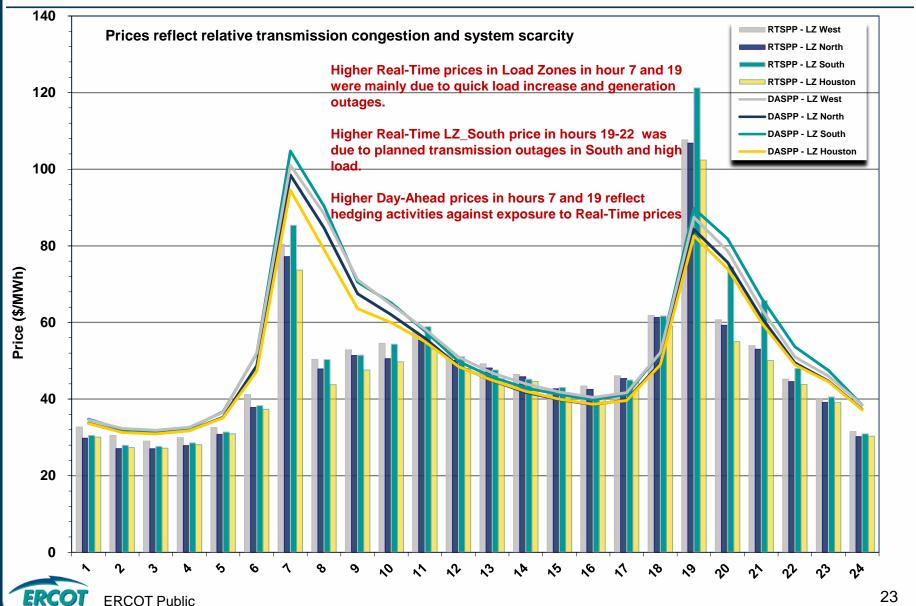




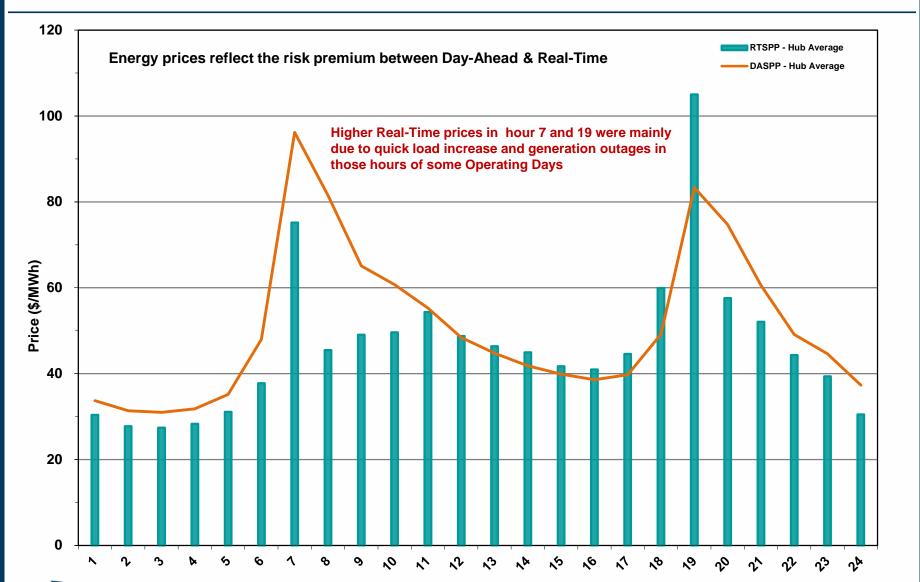
#### Day-Ahead Electricity And Ancillary Service Hourly Average Prices -February 2014



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

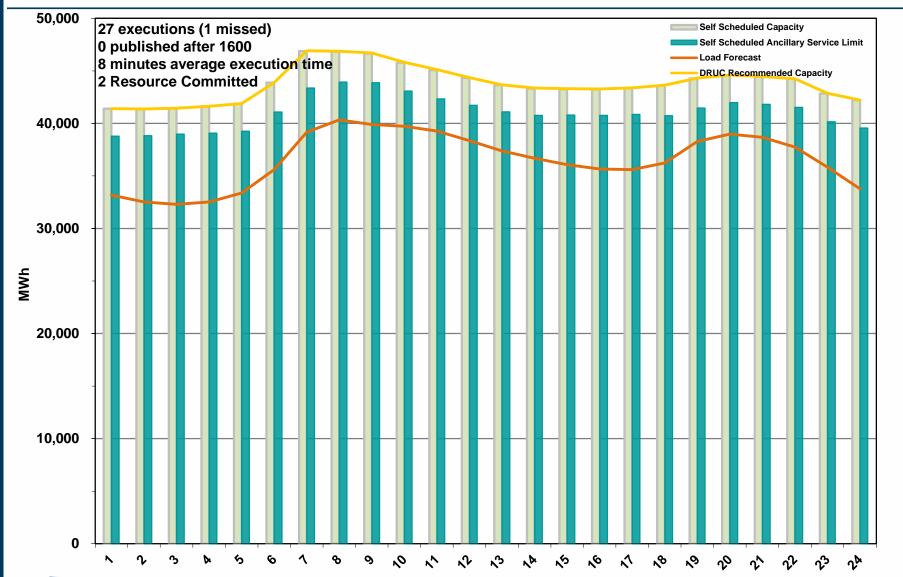


#### Day-Ahead Vs Real-Time Hub Average SPP (Hourly Average) – February 2014



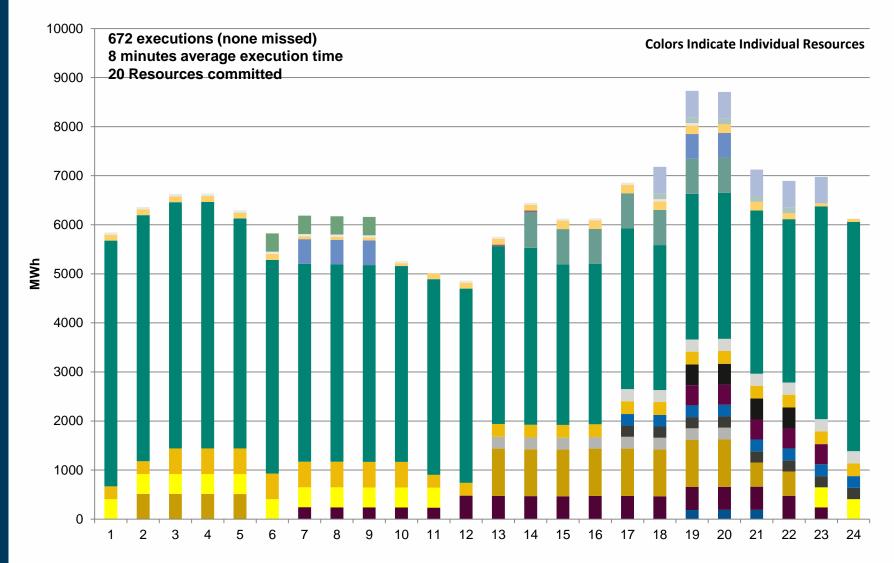


#### DRUC Monthly Summary (Hourly Average) - February 2014





# **HRUC Monthly Summary – February 2014**

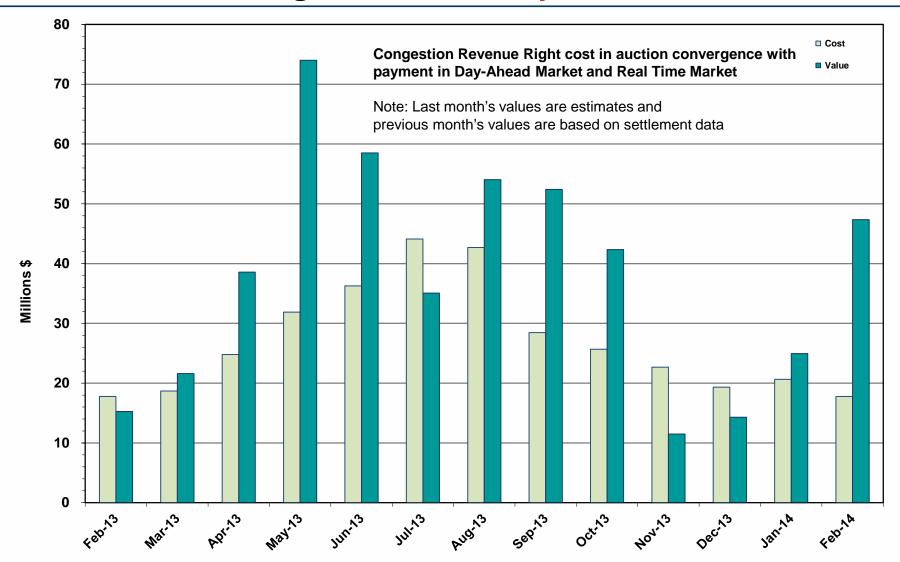




### Non-Spinning Reserve Service Deployment – February 2014

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

# **CRR Price Convergence – February 2014**





# ERS Procurement for February 2014 – May 2014

Feb – May 2014 is the first Standard Contract Term with a common Clearing Price for both ERS-10 and ERS-30.

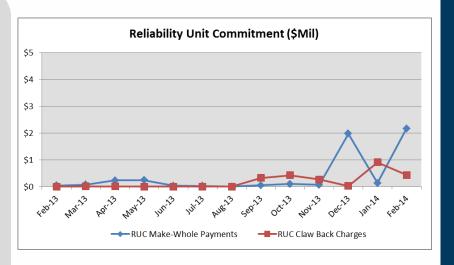
	ВН1	BH2	ВН3	NBH
ERS-10 MW Procured	622.92	607.035	598.36	518.14
ERS-30 MW Procured	149.31	125.935	118.27	97.295
Clearing Price	\$16.70	\$10.71	\$10.71	\$3.90

BH1 - Business Hours 1 HE 0900 through 1300, Monday thru Friday except ERCOT Holidays
BH2 - Business Hours 2 HE 1400 through 1600, Monday thru Friday except ERCOT Holidays
BH3 - Business Hours 3 HE 1700 through 2000, Monday thru Friday except ERCOT Holidays
NBH - Non-Business Hours All other hours



# Reliability Services – February 2014

Reliability Unit Commitment (RUC)	\$ in Millions
RUC Make-Whole Payments	(\$2.17)
RUC Clawback Charges	\$0.44
RUC Commitment Settlement	(\$1.73)
RUC Capacity Short Charges	\$2.14
RUC Make-Whole Uplift	\$0.03
RUC Commitment Cost Allocation	\$2.17
RUC Decommitment Payments	\$0.00



RUC Costs were higher in February.

RUC Costs where a charge of \$2.17M in February 2014, compared to:

- A charge of \$0.13M in January 2014
- A charge of \$0.04M in February 2013



# **Ancillary Services – February 2014**

Capacity Services	\$ in Millions
Regulation Up Service	\$13.52
Regulation Down Service	\$3.39
Responsive Reserve Service	\$39.33
Non-Spinning Reserve Service	\$4.07
Black Start Service	\$0.57
Voltage Services - Reactive Power	\$0.00
Voltage Services - Lost Opportunity	\$0.00
Total Capacity Service	\$60.89

Capacity Services costs were up significantly from last month and from February 2013.

February 2014 cost was \$60.89M, compared to:

- A charge of \$30.53M in January 2014
- A charge of \$26.66M in February 2013



# **Energy Settlement – February 2014**

Day-Ahead Market Energy Settlement	\$ in Millions
Energy Purchases	\$697.85
Point to Point Obligation Purchases	\$36.26
RMR Day-Ahead Revenue	\$0.00
Energy Sales	(\$677.72)
Day-Ahead Congestion Rent	\$56.39
Day-Ahead Market Make-Whole Payments	(\$0.20)

Day-Ahead energy settlement increased from last month and from February 2013.

Real-Time energy settlement decreased slightly from last month and increased from February 2013.

Real-Time Market Energy Settlement	\$ in Millions
Energy Imbalance at a Resource Node	(\$776.22)
Energy Imbalance at a Load Zone	\$1,042.00
Energy Imbalance at a Hub	(\$217.20)
Real Time Congestion from Self Schedules	\$2.74
Block Load Transfers and DC Ties	(\$2.64)
Impact to Revenue Neutrality	\$48.68
Emergency Energy Payments	(\$0.28)
Base Point Deviation Charges	\$0.34
Real-Time Metered Generation (MWh in millions)	24.76



# Congestion Revenue Rights (CRR) – February 2014

<b>Auction Disbursements</b>	\$ in Millions
Annual Auction	(\$14.89)
Monthly Auction	(\$2.90)
Total Auction Revenue	(\$17.79)
Day-Ahead CRR Settlement	(\$47.36)
Day-Ahead CRR Short-Charges	\$0.03
Day-Ahead CRR Short-Charges Refunded	(\$0.03)
Real-Time CRR Settlement	(\$0.00)
Real-Time CRR Short-Charges	\$0.00
Real-Time CRR Short-Charges Refunded	(\$0.00)
Total CRR Proceeds	(\$47.36)
Day-Ahead Point to Point Obligations Settlement	\$36.26
Real-Time Point to Point Obligation Settlement	(\$51.27)
Net Point to Point Obligation Settlement	(\$15.01)

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

Distribution of Balancing Account funds to load for February 2014 was \$9.06M, compared to:

- \$3.69M in January 2014
- \$0.40 M in February 2013

Point to Point Obligations settled with a net payment of \$15.01M compared to a net payment of \$9.63M last month.



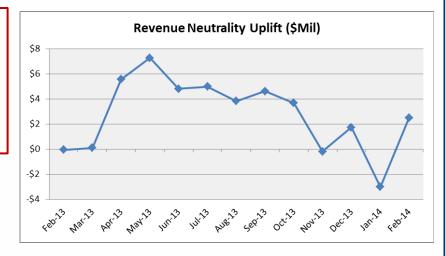
# **Revenue Neutrality – February 2014**

Revenue Neutrality Settlement	\$ in Millions
Real-Time Point to Point Obligation Settlement	(\$51.27)
Real-Time Point to Point Options and Options with Refund Settlement	(\$0.00)
Real-Time Energy Imbalance Settlement	\$48.68
Real-Time Congestion from Self-Schedules Settlement	\$2.74
DC Tie & Block Load Transfer Settlement	
Charge to Load	\$2.49

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

February 2014 was a charge of \$2.49M, compared to:

- \$3.02M credit in January 2014
- \$0.07M charge in February 2013





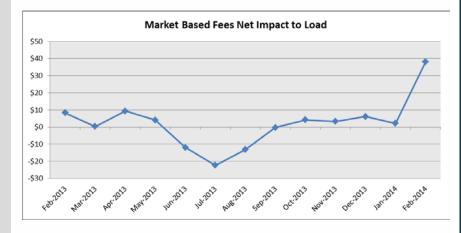
### **Net Uplift to Load – February 2014**

Market-Based Uplifts	\$ in Millions
CRR Auction Revenue Disbursement Settlement	(\$17.79)
Balancing Account Proceeds Settlement	(\$9.06)
Net Reliability Unit Commitment Settlement	\$1.73
Ancillary Services Settlement	\$60.89
Reliability Must Run Services Settlement	\$0.00
Reliability Must Run for Capacity	\$0.00
Real-Time Revenue Neutrality Settlement	\$2.49
Emergency Energy Settlement	\$0.28
Base Point Deviation Settlement	(\$0.34)
Total	\$38.19
Fee Uplifts	
ERCOT Administrative Fee Settlement	\$11.56
Net Uplift Charge to Load	\$49.76

Net uplift to Load increased significantly from last month and from February of 2013

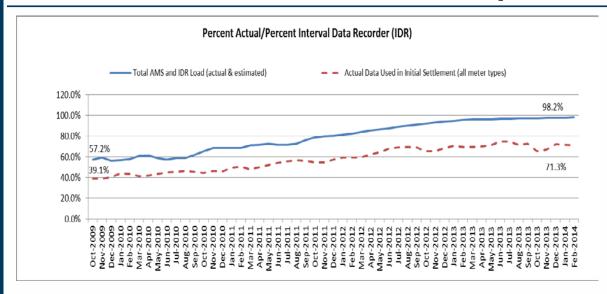
February 2014 was a charge of \$49.76M, compared to:

- A charge of \$15.32M in January 2014
- A charge of \$17.20M in February 2013



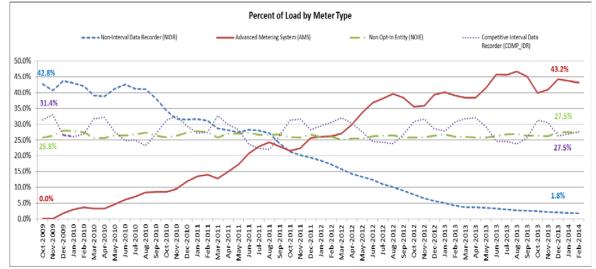


### **Advanced Meter Settlement Impacts – February 2014**



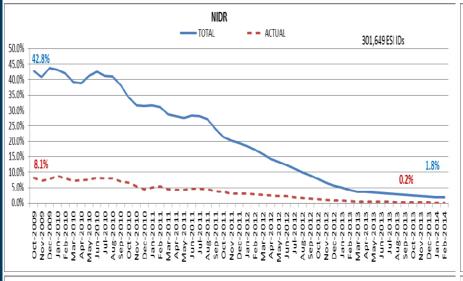
February 2014: At month end, settling 6.5M ESIIDs using Advanced Meter data.

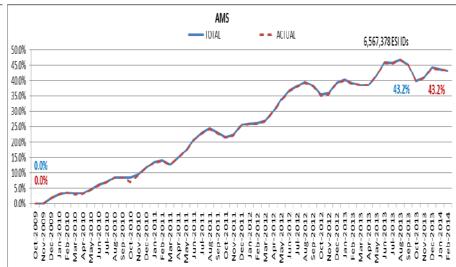
February 2014: 98.2% of the load in ERCOT is settled with 15-min interval data (AMS, Competitive IDR, and NOIE IDR).

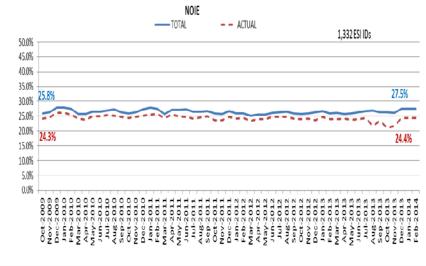


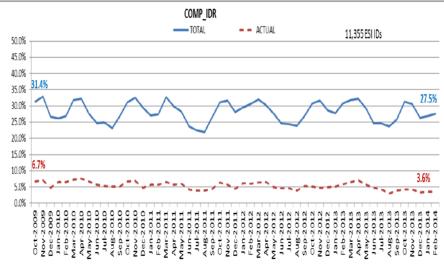


# ERCOT Wide Load Volumes by Meter Type – INITIAL Settlement – February 2014









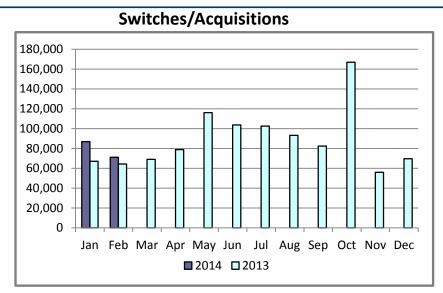


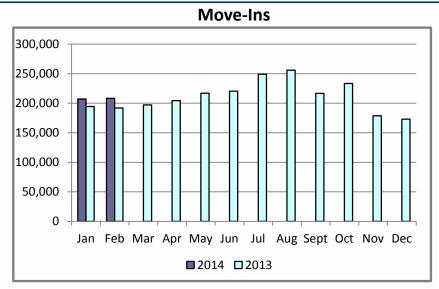
# **Retail Transaction Volumes – Summary – February 2014**

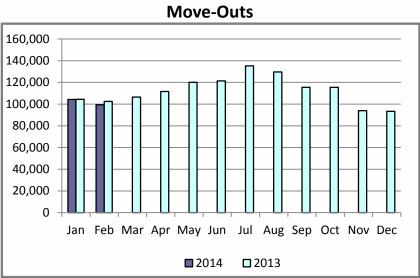
	Year-To-Date		Transactions Received			
Transaction Type	February 2014	February 2013	February 2014	February 2013		
Switches	158,083	131,445	71,130	64,329		
Acquisition	0	0	0	0		
Move - Ins	415,219	386,462	208,160	191,955		
Move - Outs	203,701	206,828	99,428	102,429		
Continuous Service Agreements (CSA)	75,967	81,616	41,156	40,389		
Mass Transitions	0	0	0	0		
Total	852,970	806,351	419,874	399,102		

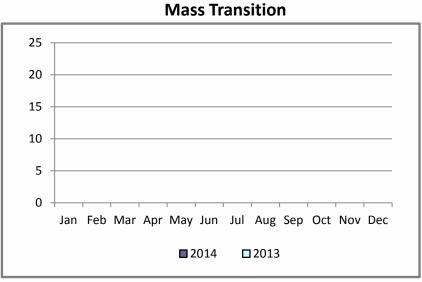


### Retail Transaction Volumes – Summary – February 2014

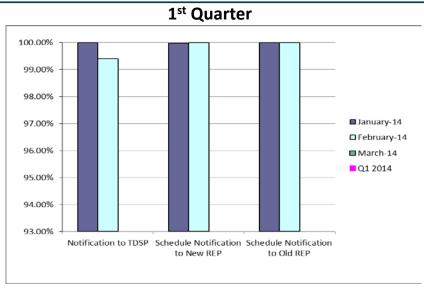


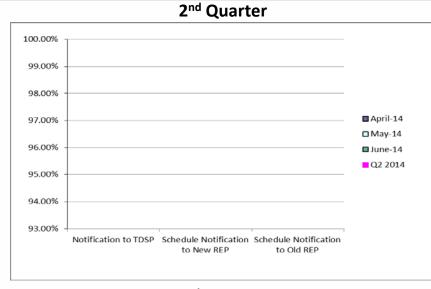


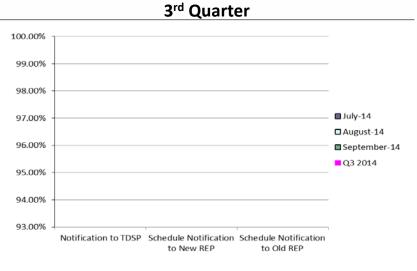


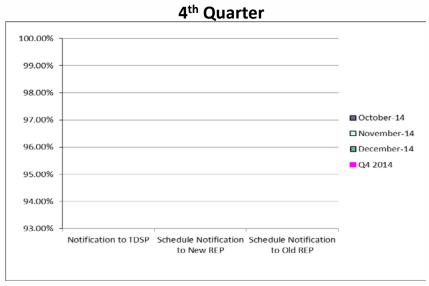


# Retail Performance Measures – Switch – February 2014



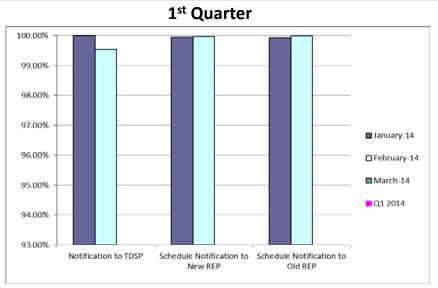


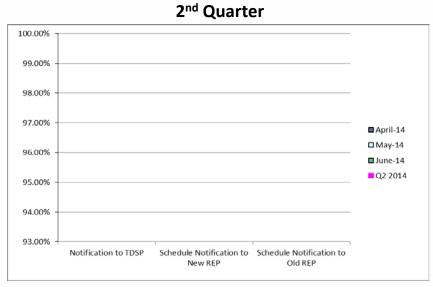


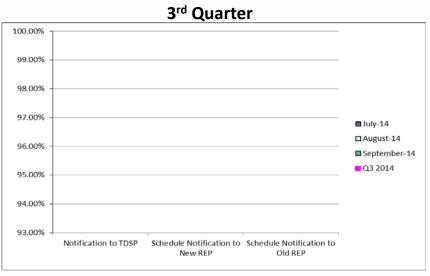


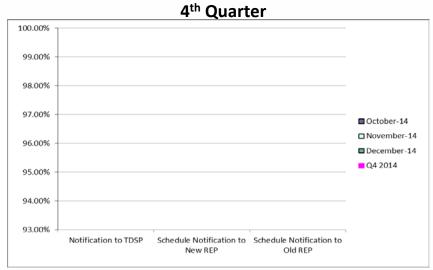


#### Retail Performance Measures (Same Day Move-In) - February 2014



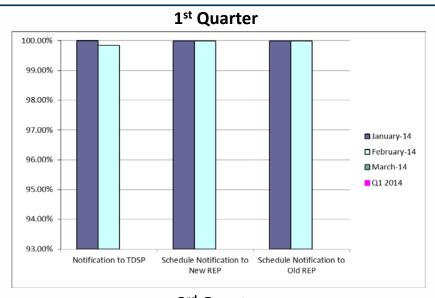


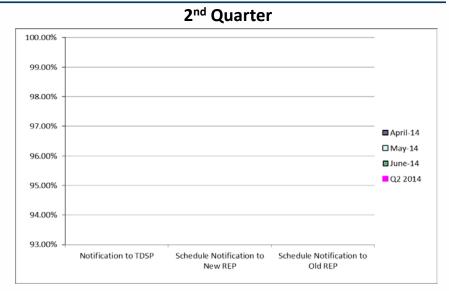


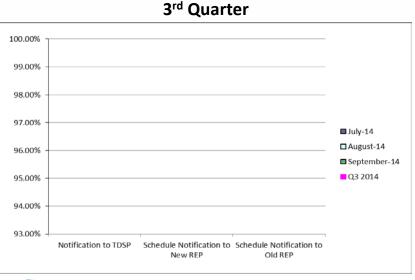


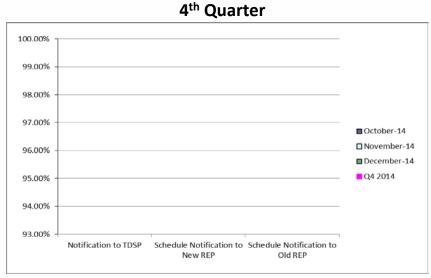


#### Retail Performance Measures (Standard Move-In) - February 2014











# **Projects Report**

			-						
ERCO1	T Project Portfolio Stoplight Report	t - March 2	014						
		2014 Project F	unding	\$	25,000,000				
					0044 D(*.!'-				
	Impact Metric Tolerances			2014 Portfolio Demand	2014 Portfolio Managed to Project Funding		tal Portfolio Demand		
Unfavorable the report.	le variances are represented as negative numbers within	Projects In Fligh	t/On Hold (Count = 49)	\$ 21,107,748	\$ 21,092,652	\$	40,976,246		
- Green =	No more than 4.9% unfavorable variance	Projects Not Yet Started (Count = 39)		\$ 9,684,709	\$ 3,891,461	\$_	18,063,637		
	Unfavorable variance between 4.9% and 9.9% ofavorable variance more than 9.9%	Projects Completed (Count = 2)		\$ 23,291	\$ 15,887	\$	224,997		
		TOTAL		\$ 30,815,748	\$ 25,000,000	\$	59,264,880		
Project Number	Projects in Initiation Phase (Count = 3)								
127-01	SQL Server 2012 Upgrade / Cluster Consolidation								
TBD	Electronic Crisis Communications Enhancements								
TBD	Access and Roles Management								
Project Number	Projects in Planning Phase (Count = 15)	Baseline Phase Start	Baseline Phase Finish	Scheduled Go-Live Date	Scheduled Phase Finish	Sch	edule Impact	Budg	get Impact
052-01	EMS Upgrade	8/7/2013	10/30/2014	TBD	10/30/2014		0%		0%
065-01	NMMS Upgrade	5/1/2013	3/1/2014	TBD	5/26/2014	1	-28%		19%
074-02	Cyber Security Project #9	12/17/2013	3/26/2014	TBD	4/24/2014	2	-29%		0%
089-01	Information Technology Change Management	4/10/2013	4/2/2014	TBD	8/20/2014	4	-39%		2%
097-01	ABB MMS OS Technology Refresh	5/29/2013	5/30/2014	TBD	5/30/2014		0%		0%
104-01	Disaster Recovery: S&B, RTL, MDT	5/15/2013	11/15/2013	TBD	4/2/2014	1	-75%		-4%
106-01	MP Online Data Entry - Ph 1	10/9/2013	3/5/2014	TBD	4/18/2014	4	-29%		6%
115-01	Cyber Security Project #14	11/13/2013	3/26/2014	TBD	5/14/2014	2	-36%		1%
119-01	CREZ Voltage Control and Coordination	11/20/2013	3/5/2014	TBD	3/5/2014		0%		28%
120-01	IT Production Hardening	2/12/2014	9/24/2014	TBD	9/25/2014		0%		37%
121-01	2013/2014 Network Refresh	1/15/2014	4/16/2014	TBD	4/16/2014		0%		-1%
122-01	Infoblox DNS/DHCP	12/11/2013	2/19/2014	TBD	3/26/2014	1	-50%		23%
125-01	VSAT/TSAT Upgrade	2/12/2014	3/26/2014	TBD	3/26/2014		0%		0%
SCR769	CRRAH Digital Certificate New Role for Read Only Access	1/15/2014	3/19/2014	TBD	3/19/2014		0%		11%
	New Extract for Five Minute Interval Settlement Data	2/12/2014	4/19/2014	TBD	4/18/2014		1%		13%



Project Number	Projects in Execution Phase (Count = 25)	Baseline Phase Start	Baseline Go-Live Target	Scheduled Go-Live Date	Scheduled Phase Finish	Schedule Impact	Buc	lget Impact
99914	Minor Cap - 2014	1/1/2014	12/31/2014	12/31/2014	12/31/2014	0%		0%
016-01	IADP-IDM Interface	11/6/2013	3/13/2014	3/12/2014	4/22/2014	0%		7%
017-01	Oracle 11g Upgrade	10/10/2012	5/14/2014	5/16/2014	5/30/2014	0%		4%
066-01	Planning Site Transition to MIS	10/16/2013	5/2/2014	5/2/2014	7/2/2014	0%		19%
077-01	Contract Lifecycle Management	9/11/2013	5/5/2014	5/5/2014	7/23/2014	0%		0%
083-01	ICentralized Application Log Management	8/28/2013	5/7/2014	5/7/2014	5/31/2014	0%		5%
10052_01	Settlement System Upgrade	1/25/2012	10/10/2014	10/10/2014	3/17/2015	0%		-4%
107-01	IBM AIX Operating System Upgrades	1/29/2014	5/2/2014	5/2/2014	7/16/2014	0%		4%
110-01	Taylor Control Room Upgrade	2/19/2014	7/7/2014	7/7/2014	8/13/2014	0%		1%
116-01	ICollage Replacement	2/6/2014	6/23/2014	6/23/2014	8/22/2014	0%		0%
118-01	Mitigation Plan RTCA Enhancements	2/5/2014	4/18/2014	4/17/2014	5/1/2014	1%		0%
128-01	Capital Efficiencies and Enhancements - 2014	1/1/2014	12/31/2014	12/31/2014	12/31/2014	0%		-4%
SCR756	MarkeTrak Enhancements - Remaining SCR756 Items	2/5/2014	7/23/2014	7/27/2014	8/22/2014	-2%		4%
117-01	12014 Market System Enhancements	1/8/2014	6/1/2014	6/1/2014	7/1/2014	0%	1	14%
047-01	CMSDK/MIR Replacement	4/24/2013	12/8/2013	3/31/2014	5/21/2014	-49%	2	-43%
057-01	EPS Metering DB Redesign	4/17/2013	9/6/2013	7/28/2014	8/6/2014	2 -228%	2	-142%
2014 PC	Program Control - 2014	1/1/2014	12/31/2014	12/31/2014	12/31/2014	NA 0%	NA	0%
NPRR485	Clarification for Fuel Adder Provisions	10/23/2013	2/28/2014	2/28/2014	3/31/2014	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 #117- 01
NPRR532	Performance Measurement and Verification and Telemetry Requirements for Load Resources Providing Non-Spin	1/8/2014	6/1/2014	6/1/2014	7/1/2014	0%	NA	See #117- 01
NPRR555	Load Resource Participation in Security-Constrained Economic  Dispatch	1/8/2014	6/1/2014	6/1/2014	7/1/2014 L	0%	NA	See #117- 01
NPRR564	Thirty-Minute Emergency Response Service (ERS) and Other ERS Services	1/8/2014	4/27/2014	4/27/2014	7/1/2014	0%	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	7/1/2014	0%	NA	See #117- 01
OBD	Setting the Shadow Price Caps and Power Balance Penalties in Security-Constrained Economic Dispatch	1/8/2014	6/1/2014	6/1/2014	7/1/2014	0%	NA	See #117- 01
SCR774	Enhancement to Outage Scheduler and Reports	2/26/2014	8/1/2014	8/1/2014	8/31/2014	0%	NA	See #128- 01



Project Number	Projects in Stabilization (Count = 5)	Baseline Execution Phase Start	Baseline Go-Live Target	Actual Go-Live Date	Scheduled Execution Phase Finish	Schedule Impact	Budget Impact	
NPRR240	Proxy Energy Offer Curve	1/8/2014	2/7/2014	2/7/2014	7/1/2014	0%	NA See #117- 01	
	Creation of a WGR Group for GREDP and Base Point Deviation	8/21/2013	3/26/2014	3/3/2014	3/31/2014	10%	44%	
NOGRR105	Generation Resource Frequency Response Test Procedure	12/4/2013	2/7/2014	2/7/2014	3/26/2014	0%	12%	
108-01	Alstom Load Forecasting Upgrade	11/20/2013	2/11/2014	2/11/2014	4/3/2014	0%	25%	
	Lawson Security	1/29/2014	2/17/2014	2/17/2014	3/5/2014	0%	-4%	
Project Number	Projects On Hold (Count = 1)	Forecast Start Date	Baseline Phase Finish	Scheduled Go-Live Date	Scheduled Phase Finish	Schedule Impact	Budget Impact	
NPRR327	State Estimator Data Redaction Methodology	12/5/2012	2/12/2013	TBD	TBD	3	0%	
Project Number	Projects Completed in the Current Year (Count = 2)	Baseline Execution Phase Start	Baseline Go-Live Target	Actual Go-Live Date	Actual Execution Phase Finish	Schedule Status Total Variance		
101-01	IEmergency Notification System Hardware Refresh	11/13/2013	1/24/2014	12/20/2013	1/24/2014	48%	-1%	
113-01	Dev Hardware Refresh and Virtualization Expansion	11/13/2013	1/24/2014	1/9/2014	2/28/2014	20%	0%	
			Footnotes					
			Current phase took longer than expected, resulting in additional funding and/or time required     Current phase requiring more labor than expected, resulting in additional funding and/or time required     Froject placed on hold     Resource constraints resulted in delay to current phase					
			NA - Metric not calculated because:  - it is reported at the parent project level, or - it is an administrative project					



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Project Number		Projects Not Yet S	Started (Count = 39)	Forecast Start Date
PROJEC <sup>*</sup>	S NOT YET STARTED	(Count = 39)	Sorted by Start Date	
L	J			L /
TBD	Production Virtualization Expa	nsion		Mar 2014
TBD	EIF Database Utilization			Mar 2014
TBD	Email Redundancy			Mar 2014
TBD	Move iTron LF Application to H	gh Availability Environm	ent	Mar 2014
TBD	MP Communications Tool			Mar 2014
TBD	Upgrade TCC1 Safety Equipme	ent		Mar 2014
TBD	Reactive Test Forms Revision			Mar 2014
TBD	Common Infrastructure			Mar 2014
	. <u></u>		itions and Payments - Phase 1b	Apr 2014
	Changes to Ancillary Services			Apr 2014
NPRR500	Posting of Generation that is C	ff but Available		Apr 2014
NPRR527	Required Combined Cycle Tele	metry for Operational Av	vareness and PDCWG Analysis	Apr 2014
TBD	Cyber Security Project #10			Apr 2014
TBD	EIS Reporting and Control Sys	tems Upgrade		Apr 2014
TBD	Replace N2N System			Apr 2014
	QSGR Dispatch Adjustment			May 2014
NPRR543	Message for Confirmed E-Tags			May 2014
NPRR559	Revisions to MCE Calculation			May 2014
TBD	Cyber Security Project #11			May 2014
TBD	On-Site Storage			Jun 2014
NPRR272	Definition and Participation of C	uick Start Generation F	lesources	Jul 2014
NPRR519	Exemption of ERS-Only QSEs	from Collateral and Cap	italization Requirements	Jul 2014
NPRR524	Resource Limits in Providing A	ncillary Service		Jul 2014
SCR771	<b>ERCOT System Change Allow</b>	ng Independent Master	QSE to Represent Split Generation Resources	Jul 2014
TBD	Red Hat Jboss Operations Net	work		Jul 2014
TBD	SOTE/MOTE Upgrade			Jul 2014
RRs	Revision Request Funding - 20	14		Jul 2014
NPRR256	Sync with PRR787, Add Non-C	ompliance Language to	QSE Performance Standards	Aug 2014
TBD	Blackstart Facilities Enhancen	nents		Aug 2014
NOGRR084	Daily Grid Operations Summar	y Report		Sep 2014
TBD	EDW Platform Transition Phas	e 2		Sep 2014
TBD	VSAT/TSAT Upgrade Phase 2			Sep 2014
NPRR210	Wind Forecasting Change to P	50, Sync with PRR841		Oct 2014
NPRR439	Updating a Counter-Party's Ava	ilable Credit Limit for Cu	irrent Day DAM	Oct 2014
NPRR553	Monthly BLT Payment and Cha	arge for Presidio Excepti	on	Oct 2014
TBD	AV Upgrades to TCC1 Confere	· <del>`</del>		Oct 2014
TBD	IMP Online Data Entry - Ph 2			Oct 2014
TBD	Replace Actional Policy Manag	jer		Oct 2014
NPRR455	CRR Shift Factors Report			Nov 2014

