

# ERCOT Monthly Operational Overview (January 2014)

ERCOT Public February 15, 2014

# **Grid Operations & Planning**

#### **Summary – January 2014**

#### Operations

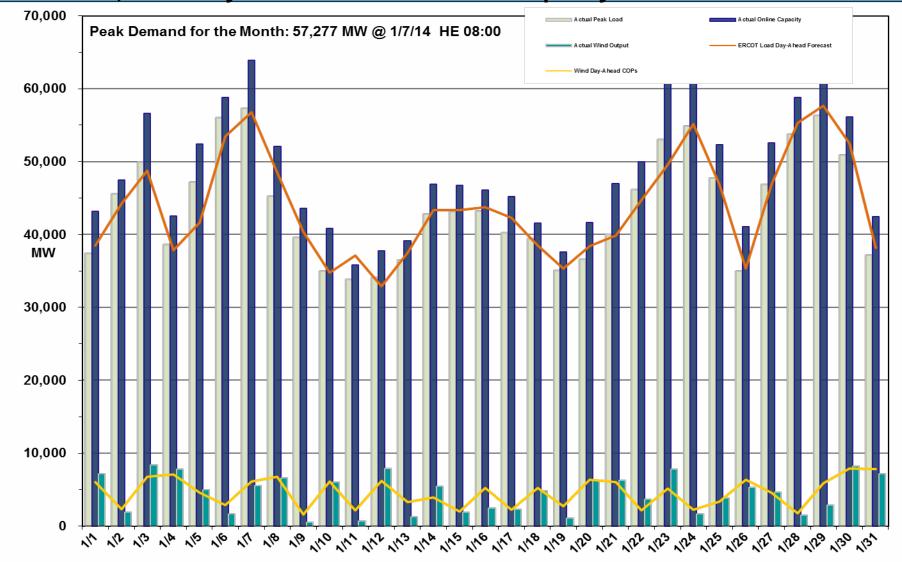
- The peak demand of 57,277 MW on January 7<sup>th</sup> was more than the mid-term forecast peak of 56,800 MW as well the January 2013 actual peak demand of 50,665 MW. The instantaneous load on January 7<sup>th</sup> was 58,043 MW.
- Day-ahead load forecast error for January was 3.19%`
- ERCOT issued thirteen notifications:
  - Three advisories, two Operating Condition Notices (OCN), and two Watches for extreme cold temperatures
  - One Advisory issued for Voltage Security Assessment Tool (VSAT) not solving for 30 minutes.
  - One Advisory for Physical Responsive Capability (PRC) below 3000 MW.
  - Two Watches for PRC below 2500 MW
  - Two Energy Emergency Alert (EEA) events

#### Planning Activities

- 210 active generation interconnection requests totaling over 52,300 MW, including 25,200 MW of wind generation as of January 31, 2014. Five more requests and 1,200 more MW from December 31, 2013.
- 11,213 MW wind capacity in commercial operation January 31, 2014; 42 less
   MW than December 31, 2013.



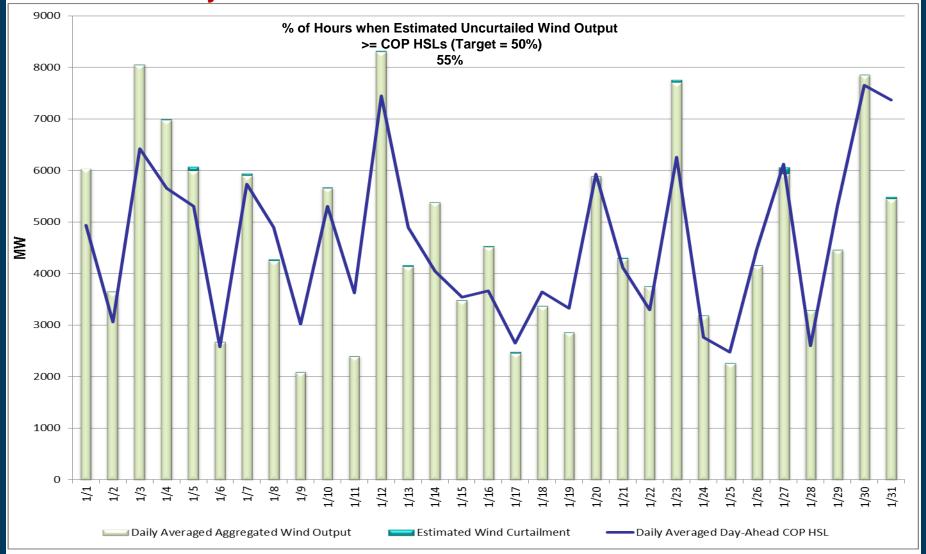
# Daily Peak Demand: Hourly Average Actual vs. Forecast, Wind Day-Ahead COPs & On-line Capacity at Peak – Jan. 2014





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

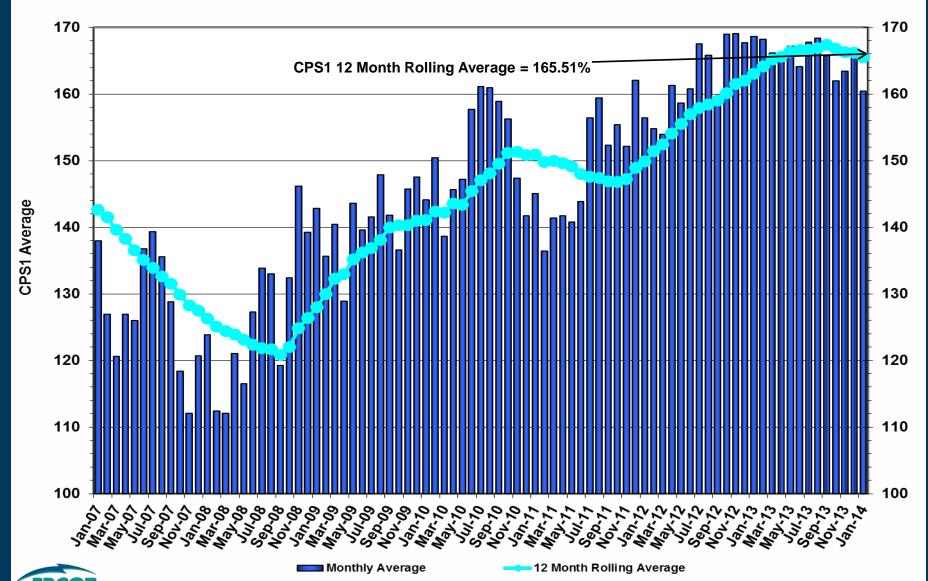
Hours - January 2014



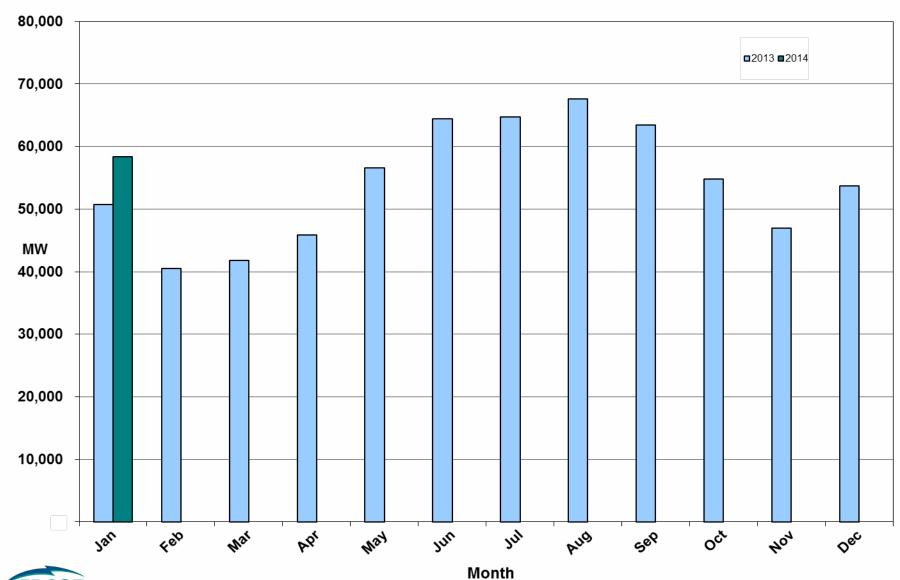


Note: QSEs must use the AWST 50% probability of exceedance forecast as the HSL in their COPs

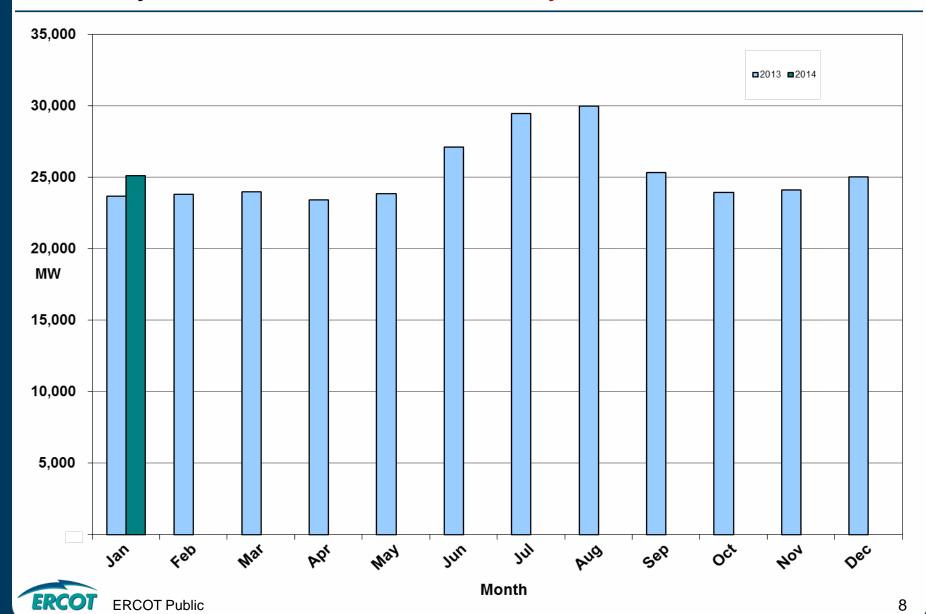
#### **ERCOT's CPS1 Monthly Performance – January 2014**



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



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



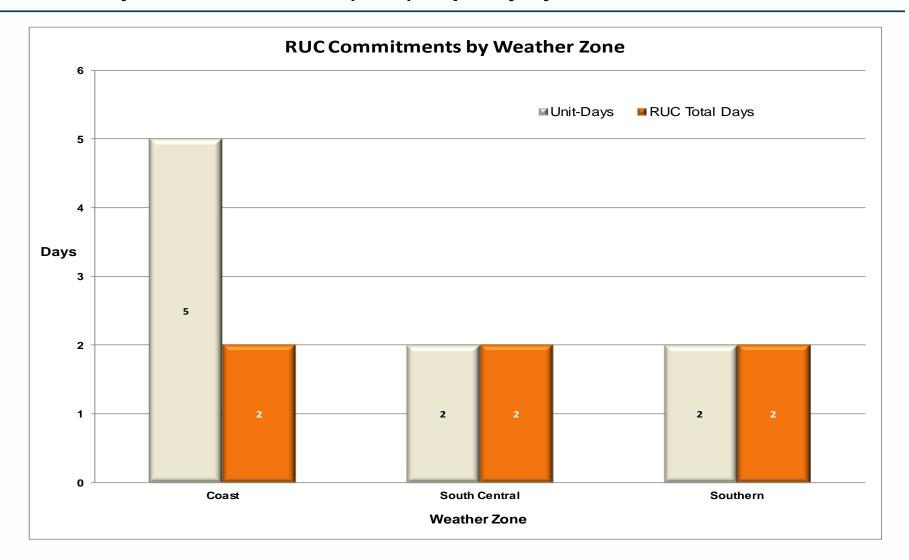
#### **Day-Ahead Load Forecast Performance – January 2014**

# 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	Jan : MA	2014 .PE
Average Annual MAPE	2.83	3.02	2.86	3.19	3.	19
Lowest Monthly MAPE	1.63	2.51	2.07	3.19	Lowest Daily MAPE	1.02 January – 10
Highest Monthly MAPE	3.55	3.49	3.50	3.19	Highest Daily MAPE	<b>7.99</b> January – 11



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





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

GTLs	Jan 13 Days GTLs	Nov 13 Days GTLs	Dec 13 Days GTLs	Jan 14 Days GTLs	Last 12 Months Total Days (Feb13 – Jan14)
North – Houston	0	0	0	0	0
West – North	6	0	1	3	34
Valley Import	0	1	0	0	1
SOP110	0	0	1	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 – January 2014**

- OCNs issued for extreme cold temperatures
  - Issued 1/21 for operating days 1/23-1/24
  - Issued 1/24 for operating days 1/28-1/29
- Advisories issued for extreme cold temperatures
  - Issued 1/5 for operating day 1/6
  - Issued 1/22 for operating days 1/23-1/24
  - Issued 1/26 for operating days 1/27-1/29
- Advisories issued for Voltage Security Assessment Tool (VSAT) not solved for 30 minutes.
  - Issued once (1/9)
- Advisories issued for Physical Responsive Capability (PRC) below 3000 MW.
  - Issued once (1/18)
- Watches issued for extreme cold temperatures
  - Issued 1/23 for operating days 1/23-1/24
  - Issued 1/27 for operating days 1/27-1/29
- Watches issued for Physical Responsive Capability (PRC) below 2500 MW.
  - Issued 1/6
  - Issued 1/18
- Energy Emergency Alerts
  - EEA1 and EEA2 issued on 1/6
  - EEA1 issued on 1/18



#### Significant Events – January 2014

- Polar Vortex extreme cold weather, January 6<sup>th</sup>
  - Multiple generation outages and de-rates during morning peak
  - ERCOT issued EEA1 and EEA2
  - No firm load shed required
- Large Generator trip during morning peak, January 18th
  - Load Resources automatically deployed by under frequency relays
  - EEA1 issued due to PRC<2300MW</li>
  - Frequency recovered immediately



### **Lake Levels Update – February 1, 2014**

Surface Water & (MW)	*Level @ Full Conservation Pool	*Level on Jan 1, 2011	*Level on Oct 7, 2011	*Level on Feb 1, 2014
Lake Texana (56)	44.50	41.00	32.81	41.03
Bardwell Lake (312)	421.00	420.71	416.23	417.96
Lake Colorado City (407)	2,070.20	2057.33	2052.4	2049.48
Lake Ray Hubbard (916)	435.50	432.37	429.22	428.41
Lake Granbury (983)	693.00	691.90	686.27	683.73
Lake Houston (1016)	41.73	42.10	36.76	42.12
Twin Oaks Reservoir (1616)	400	398.87	398.27	400.12
Lake Limestone (1689)	363	359.03	354	363.01
Martin Lake (2425)	306	300.48	295.06	305.84



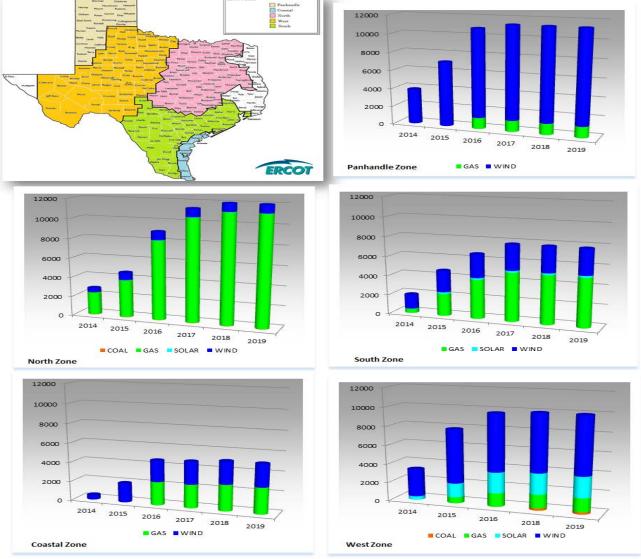
#### **Planning Summary – January 2014**

- ERCOT is currently tracking 210 active generation interconnection requests over 52,300 MW. This includes over 25,200 MW of wind generation.
- ERCOT is currently reviewing proposed transmission improvements with a total cost of \$876.2 Million
- Transmission Projects endorsed in 2013 total \$349.8 Million
- All projects (in engineering, routing, licensing and construction) total approximately \$6.23 Billion.
- Transmission Projects energized in 2013 total about \$3.17 Billion.



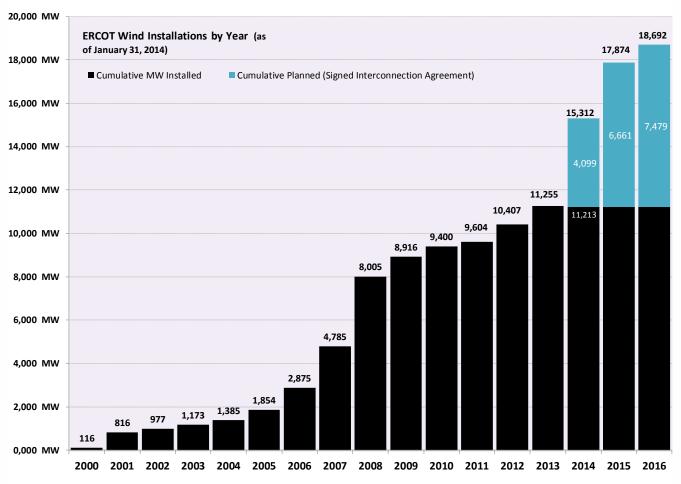
### Cumulative Installed MW Capacity of Interconnection Requests by Zone –

January 2014





#### Wind Generation – January 2014

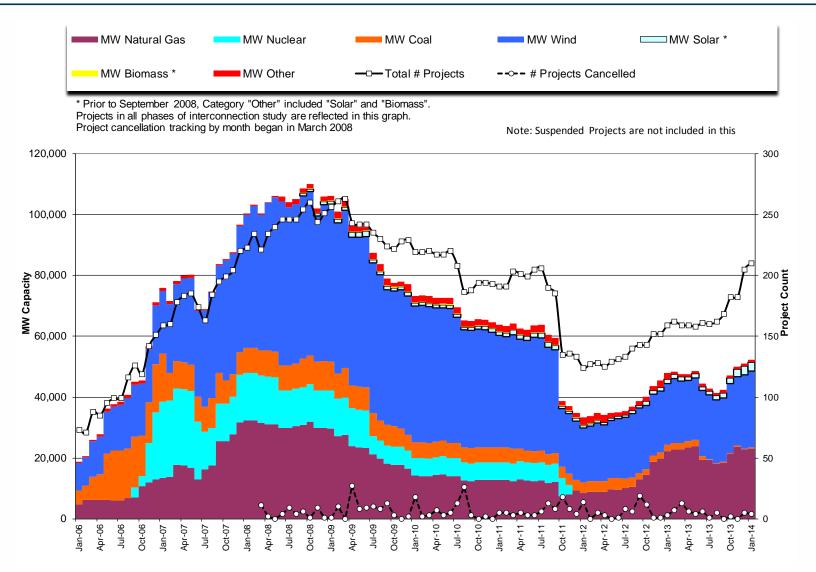


The data presented here is based upon the latest registration data provided to ERCOT by the resource owners and can change without notice. Any capacity changes will be reflected in current and subsequent years' totals. Scheduling delays will also be reflected in the planned projects as that information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

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

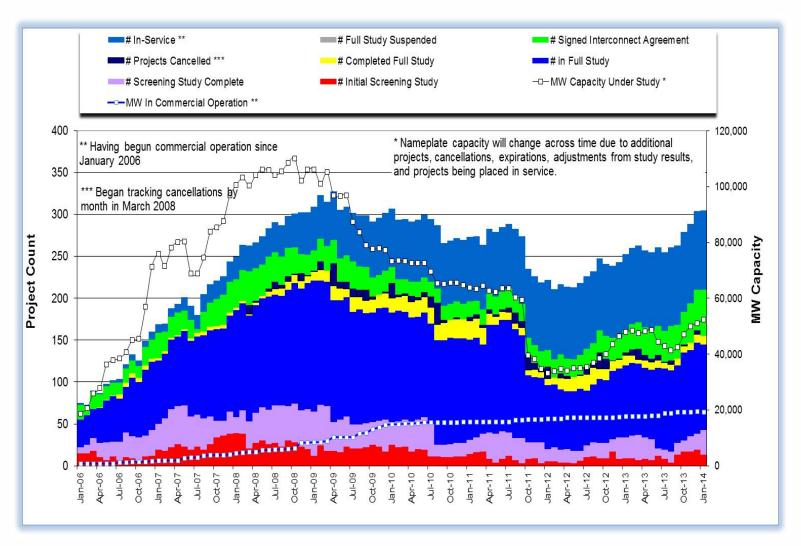


#### **Generation Interconnection Activity by Fuel – January 2014**





#### Generation Interconnection Activity by Project Phase – January 2014

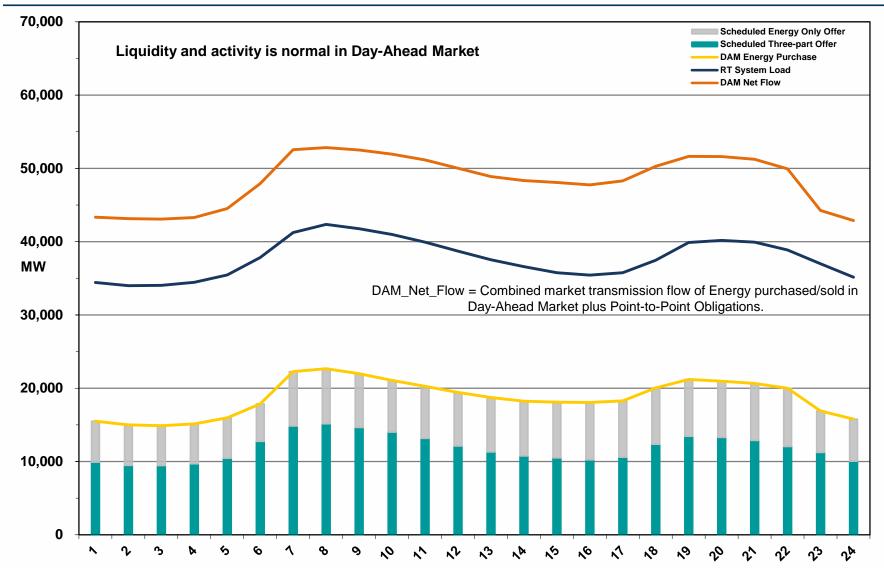




# **Market Operations**

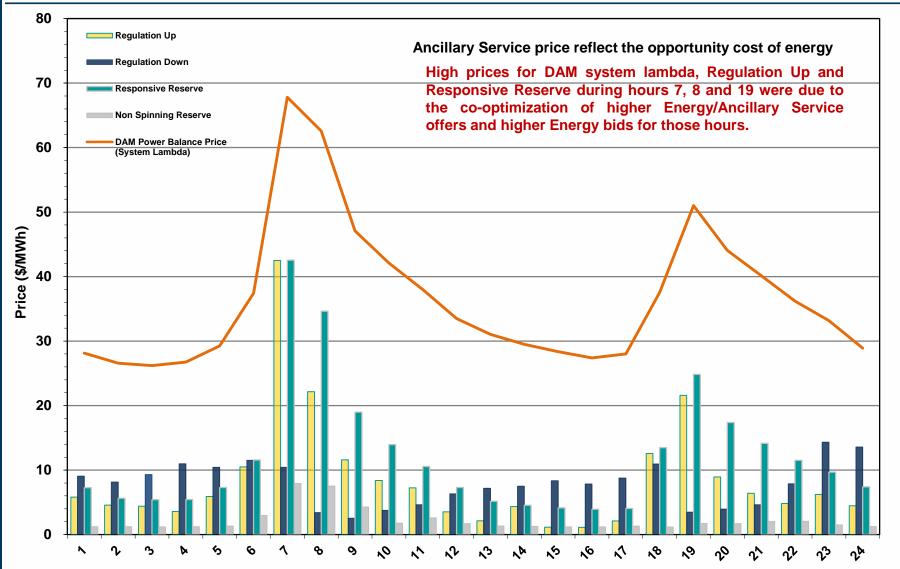


# Day-Ahead Schedule (Hourly Average) – January 2014



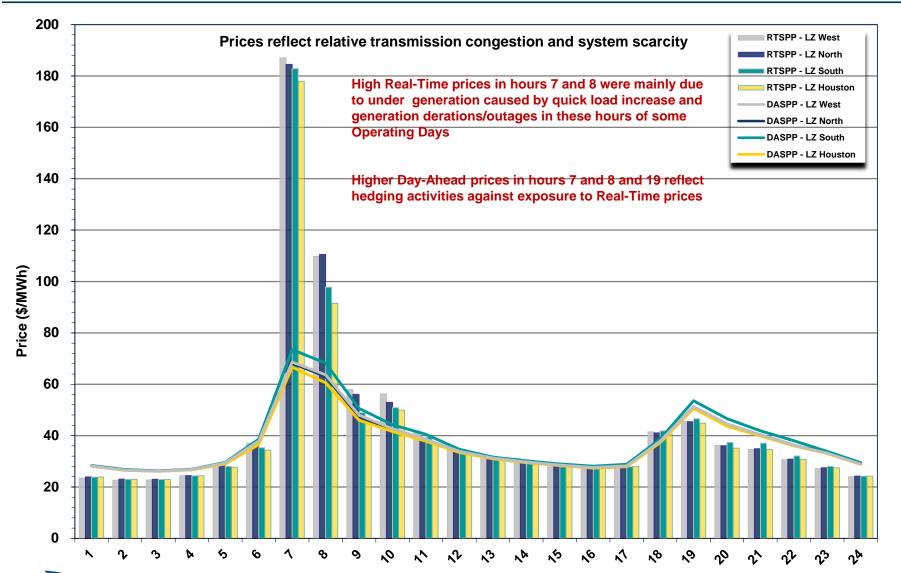


# Day-Ahead Electricity And Ancillary Service Hourly Average Prices – January 2014



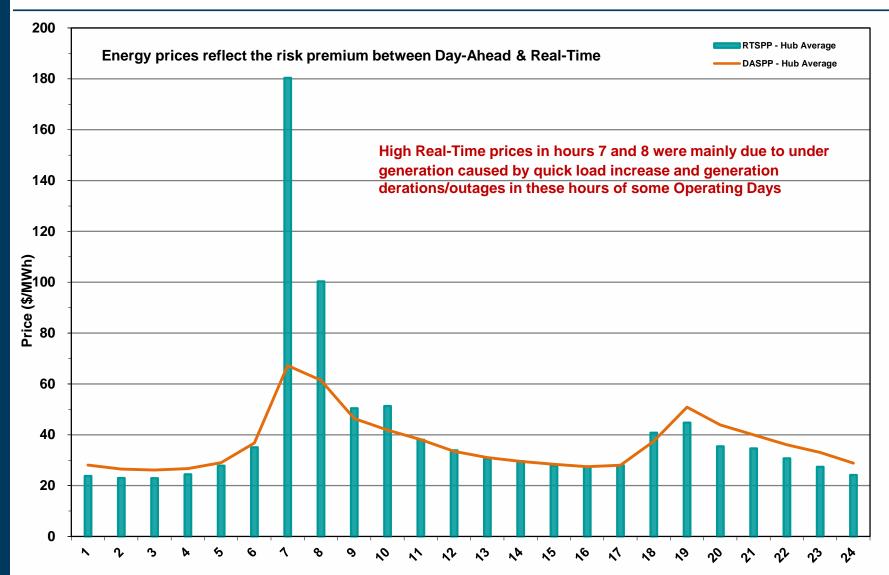


#### Day-Ahead Vs Real-Time Load Zone SPP (Hourly Average) – January 2014



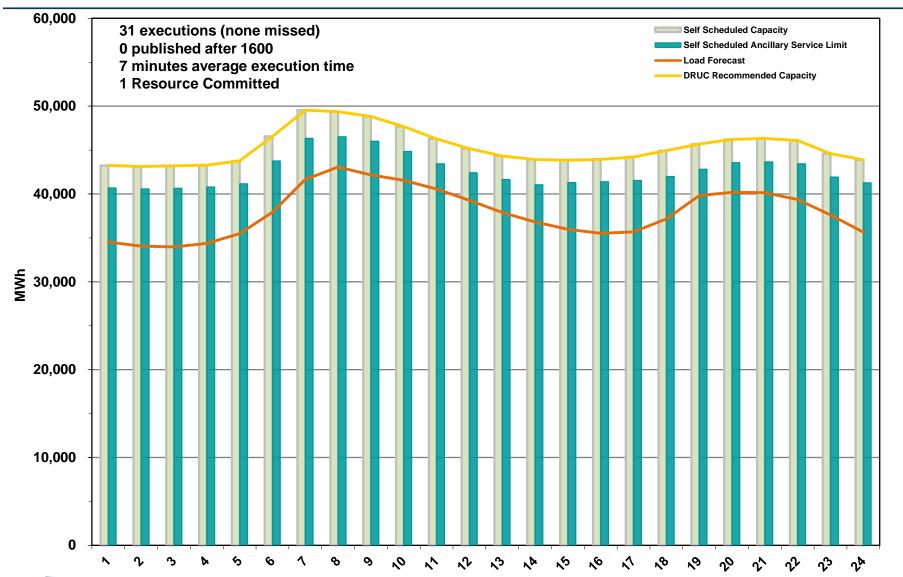


#### Day-Ahead Vs Real-Time Hub Average SPP (Hourly Average) – January 2014



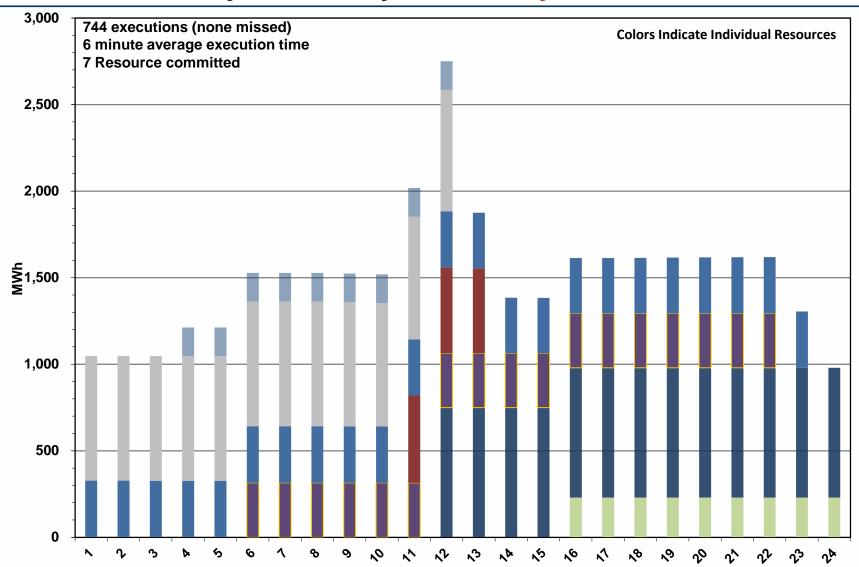


### DRUC Monthly Summary (Hourly Average) - January 2014





# **HRUC Monthly Summary – January 2014**



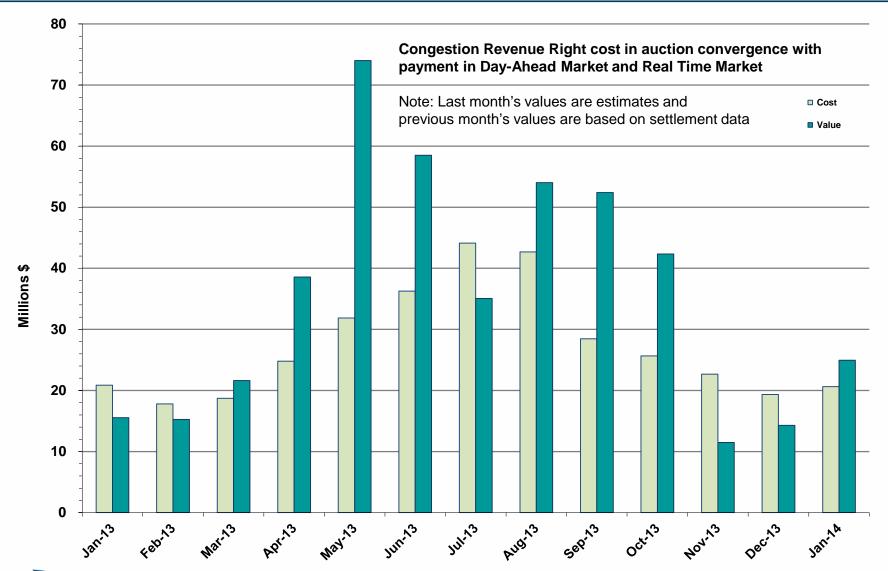


## Non-Spinning Reserve Service Deployment – January 2014

Deployment Start Time	Deployment End Time	Deployment Duration (h:mm)	Max Deployment (MW)	Reason
1/6/2014 6:42AM	1/6/2014 8:11AM	1:29	187	EEA declared due to capacity shortage
1/18/2014 8:44AM	1/18/2014 9:00AM	0:16	456	EEA declared due to large generator trip
1/18/2014 9:06AM	1/18/2014 10:38AM	1:32	359	EEA declared due to large generator trip.



# **CRR Price Convergence – January 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.

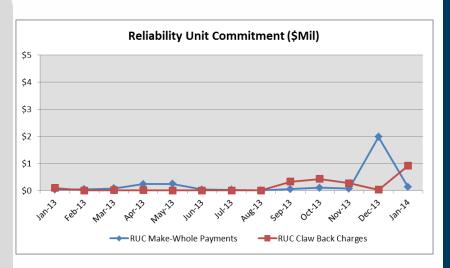
	ВН1	BH2	ВН3	NBH
ERS-10 MW Procured	622.92	607.035	598.36	518.14
ERS-30 MW Procured	149.31	125.935	118.27	97.295
Clearing Price	\$16.70	\$10.71	\$10.71	\$3.90

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 – January 2014

Reliability Unit Commitment (RUC)	\$ in Millions
RUC Make-Whole Payments	(\$0.13)
RUC Clawback Charges	\$0.91
RUC Commitment Settlement	\$0.77
RUC Capacity Short Charges	\$0.13
RUC Make-Whole Uplift	\$0.00
<b>RUC Commitment Cost Allocation</b>	\$0.13
RUC Decommitment Payments	\$0.00



RUC Costs continued to be low in January.

RUC Costs where a charge of \$0.13M in January 2014, compared to:

- A charge of \$1.97M in December 2013
- A charge of \$0.03M in January 2013



# **Ancillary Services – January 2014**

Capacity Services	\$ in Millions
Regulation Up Service	\$3.35
Regulation Down Service	\$2.15
Responsive Reserve Service	\$22.04
Non-Spinning Reserve Service	\$2.36
Black Start Service	\$0.63
Voltage Services - Reactive Power	\$0.00
Voltage Services - Lost Opportunity	\$0.00
Total Capacity Service	\$30.53

Capacity Services costs were up from last month and up from January 2013.

January 2014 cost was \$30.53M, compared to:

- A charge of \$23.78M in December 2013
- A charge of \$15.39M in January 2013



# **Energy Settlement – January 2014**

Day-Ahead Market Energy Settlement	\$ in Millions
Energy Purchases	\$560.79
Point to Point Obligation Purchases	\$18.53
RMR Day-Ahead Revenue	\$0.00
Energy Sales	(\$550.72)
Day-Ahead Congestion Rent	\$28.59
Day-Ahead Market Make-Whole Payments	(\$0.22)

Day-Ahead and Real-Time energy settlement increased from last month and from January 2013.

Real-Time Market Energy Settlement	\$ in Millions
Energy Imbalance at a Resource Node	(\$779.13)
Energy Imbalance at a Load Zone	\$1,083.40
Energy Imbalance at a Hub	(\$260.42)
Real Time Congestion from Self Schedules	\$0.57
Block Load Transfers and DC Ties	(\$13.24)
Impact to Revenue Neutrality	\$31.18
Emergency Energy Payments	(\$0.12)
Base Point Deviation Charges	\$0.35
Real-Time Metered Generation (MWh in millions)	27.98

# Congestion Revenue Rights (CRR) – January 2014

<b>Auction Disbursements</b>	\$ in Millions
Annual Auction	(\$16.54)
Monthly Auction	(\$4.09)
Total Auction Revenue	(\$20.63)
Day-Ahead CRR Settlement	(\$24.94)
Day-Ahead CRR Short-Charges	\$0.08
Day-Ahead CRR Short-Charges Refunded	(\$0.08)
Real-Time CRR Settlement	(\$0.00)
Real-Time CRR Short-Charges	\$0.00
Real-Time CRR Short-Charges Refunded	(\$0.00)
Total CRR Proceeds	(\$24.94)
Day-Ahead Point to Point Obligations Settlement	\$18.53
Real-Time Point to Point Obligation Settlement	(\$28.16)
Net Point to Point Obligation Settlement	(\$9.63)

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

Distribution of Balancing Account funds to load for January 2014 was \$3.69M, compared to:

- \$2.05M in December 2013
- \$0 M in January 2013

Point to Point Obligations settled with a net payment of \$9.63M compared to a net payment of \$1.18M last month.



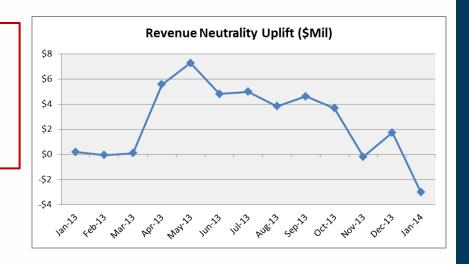
# **Revenue Neutrality – January 2014**

Revenue Neutrality Settlement	\$ in Millions
Real-Time Point to Point Obligation Settlement	(\$28.16)
Real-Time Point to Point Options and Options with Refund Settlement	(\$0.00)
Real-Time Energy Imbalance Settlement	\$43.84
Real-Time Congestion from Self-Schedules Settlement	\$0.57
DC Tie & Block Load Transfer Settlement	
Charge to Load	(\$3.02)

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

January 2014 was a credit of \$3.02M, compared to:

- \$1.73M charge in December 2013
- \$0.19M charge in January 2013





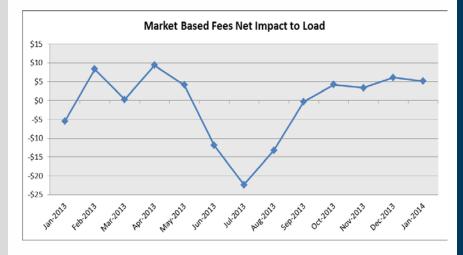
# Net Uplift to Load – January 2014

Market-Based Uplifts	\$ in Millions
CRR Auction Revenue Disbursement Settlement	(\$20.63)
Balancing Account Proceeds Settlement	(\$3.69)
Net Reliability Unit Commitment Settlement	(\$0.77)
Ancillary Services Settlement	\$30.53
Reliability Must Run Services Settlement	\$0.00
Reliability Must Run for Capacity	\$0.00
Real-Time Revenue Neutrality Settlement	(\$3.02)
Emergency Energy Settlement	\$0.12
Base Point Deviation Settlement	(\$0.35)
Total	\$2.20
Fee Uplifts	
ERCOT Administrative Fee Settlement	\$13.12
Net Uplift Charge to Load	\$15.32

Net uplift to Load decreased from last month and increased from January of 2013

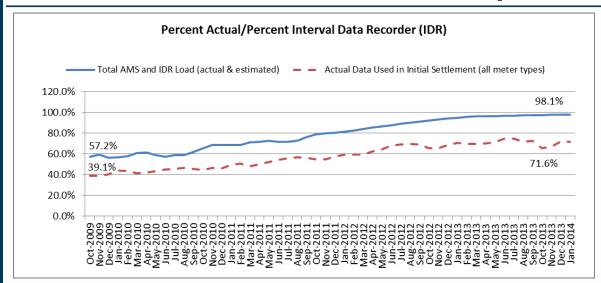
January 2014 was a charge of \$15.32M, compared to:

- A charge of \$17.83M in December 2013
- A charge of \$5.25M in January 2013



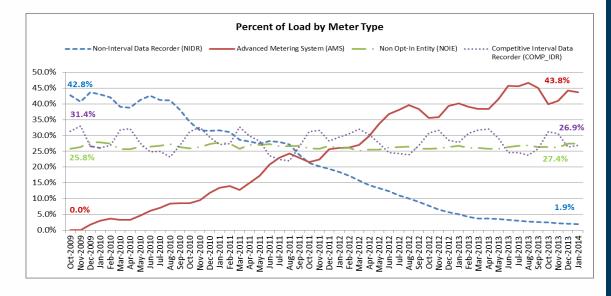


# **Advanced Meter Settlement Impacts – January 2014**



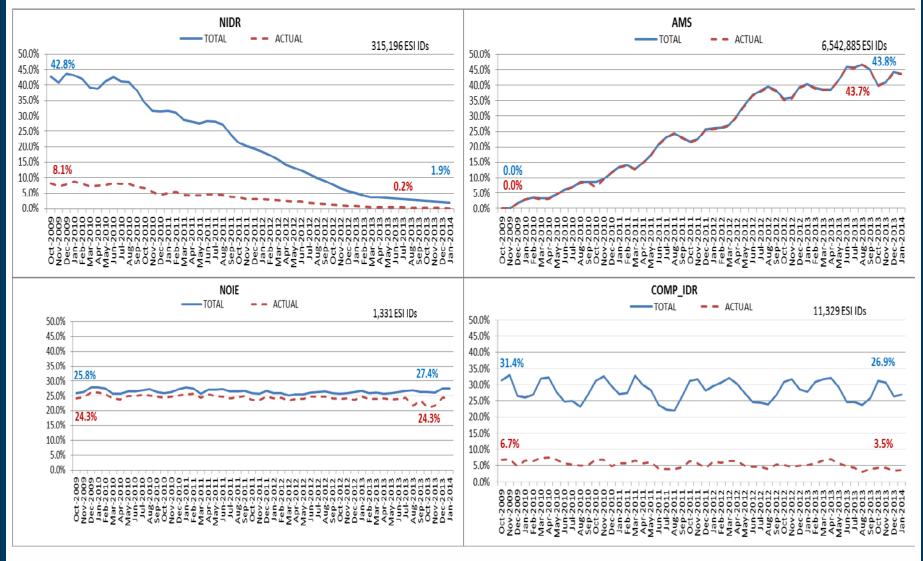
January 2014: At month end, settling 6.5M ESIIDs using Advanced Meter data.

January 2014: 98.1% 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 – January 2014





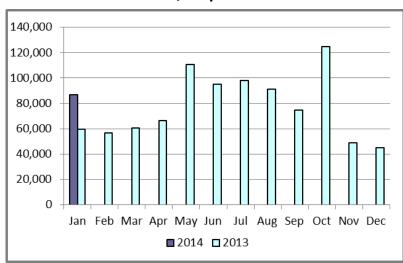
# **Retail Transaction Volumes – Summary – January 2014**

	Year-T	o-Date	Transaction	s Completed
Transaction Type	January 2014	January 2013	January 2014	January 2013
Switches	86,953	59,327	86,953	59,327
Acquisition	0	54	0	54
Move - Ins	183,053	170,463	183,053	170,463
Move - Outs	83,883	86,138	83,883	86,138
Continuous Service Agreements (CSA)	31,884	38,295	31,884	38,295
Mass Transitions	0	0	0	0
Total	385,773	354,277	385,773	354,277
Total since June 1, 2001	55,272,267			

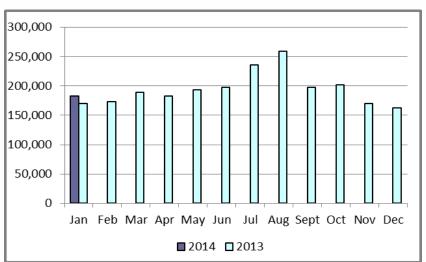


### Retail Transaction Volumes – Summary – January 2014

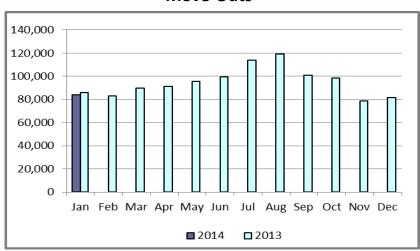
#### **Switches/Acquisitions**



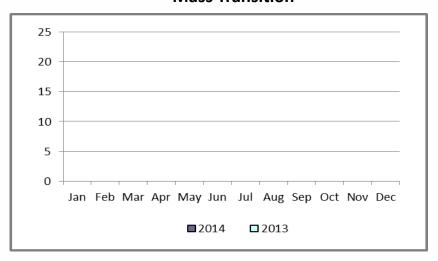
#### **Move-Ins**



#### **Move-Outs**

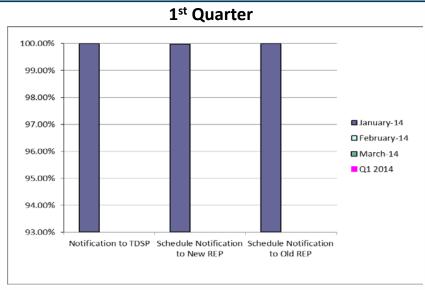


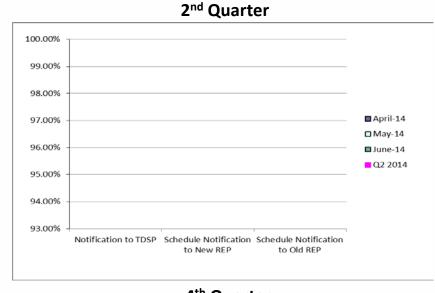
#### **Mass Transition**

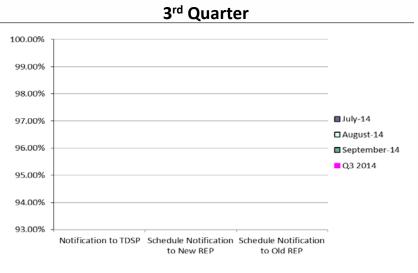


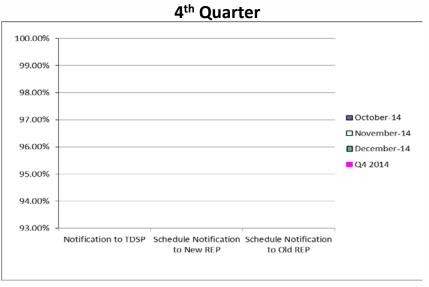


# Retail Performance Measures – Switch – January 2014



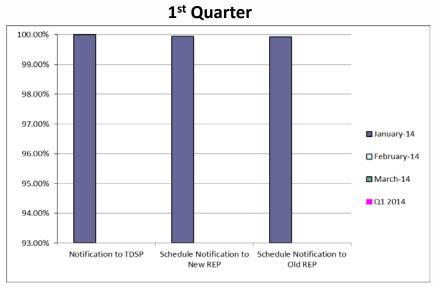


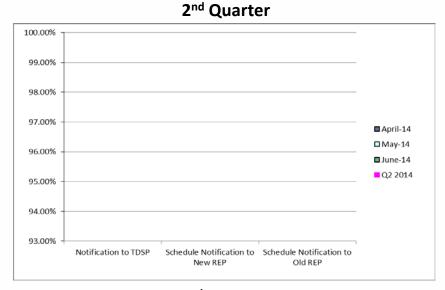


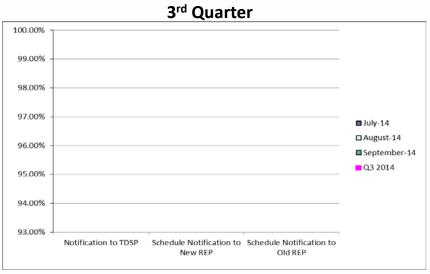


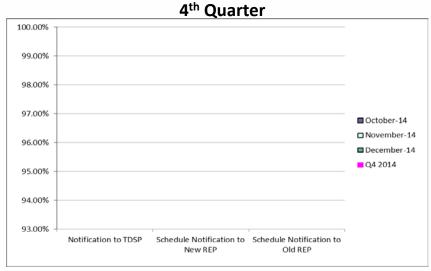


#### Retail Performance Measures (Same Day Move-In) - January 2014



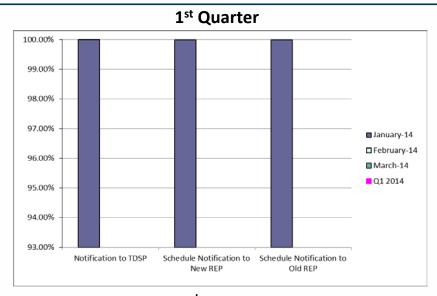


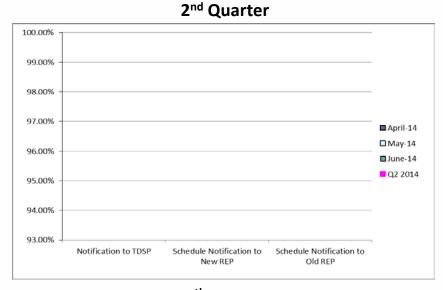


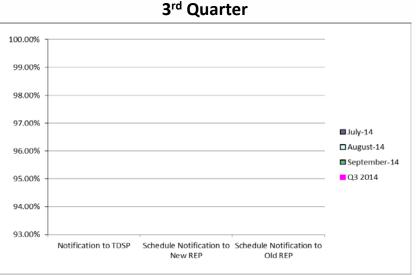


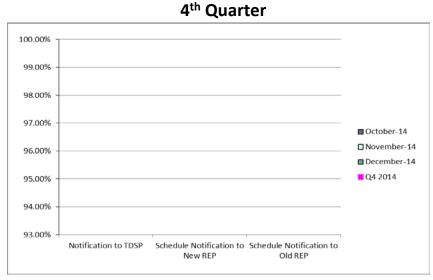


### Retail Performance Measures (Standard Move-In) – January 2014









# **Projects Report**

								Funding Request	2014 Forecast			Sum of Total	Total Forecast		
PROJECT	S IN FLIGHT (Count = 49) Sorted by Phas	se / Project N	lum					\$ 21,780,738	\$ 21,279,535		2%	Budgets \$ 40,632,077	\$ 39,168,327		3%
Project Number	Projects in Initiation Phase	Phase		Schedule	e dates as of 2	/13/2014									
120-01	IT Production Hardening	Initiation													
125-01	VSAT/TSAT Upgrade	Initiation													
127-01	SQL Server 2012 Upgrade / Cluster Consolidation	Initiation													
SCR772	New Extract for Five Minute Interval Settlement Data	Initiation													
TBD	Identity and Access Management	Initiation													
Project Number	Projects in Planning Phase	Phase	Baseline Phase Start	Baseline Phase Finish	Scheduled Go-Live Date	Scheduled Phase Finish	Schedule Status			20 <sup>.</sup> Varia				To Varia	otal ance
052-01	EMS Upgrade	Planning Ph2	8/7/2013	10/30/2014	TBD	10/30/2014	0%				-1%				3%
065-01	NMMS Upgrade	Planning	5/1/2013	3/1/2014	TBD	3/31/2014	3 -9%				14%				10%
074-02	Cyber Security Project #9	Planning	12/17/2013	3/26/2014	TBD	4/14/2014	3 -19%				41%				40%
089-01	Information Technology Change Management	Planning	4/10/2013	4/2/2014	TBD	4/1/2014	0%				11%				6%
097-01	ABB MMS OS Technology Refresh	Planning	5/29/2013	5/30/2014	TBD	5/30/2014	0%				17%				30%
104-01	Disaster Recovery: S&B, RTL, MDT	Planning	5/15/2013	11/15/2013	TBD	1/21/2014	3 -36%			3	-33%				-3%
106-01	MP Online Data Entry - Ph 1	Planning	10/9/2013	3/5/2014	TBD	4/18/2014	5 -29%				0%				0%
110-01	Taylor Control Room Upgrade	Planning	10/9/2013	2/19/2014	TBD	2/19/2014	0%				0%				1%
115-01	Cyber Security Project #14	Planning	11/13/2013	3/26/2014	TBD	4/29/2014	3 -25%				0%				1%
119-01	CREZ Voltage Control and Coordination	Planning	11/20/2013	3/5/2014	TBD	3/5/2014	0%				25%				23%
121-01	2013/2014 Network Refresh	Planning	1/15/2014	4/16/2014	TBD	4/16/2014	0%				1%				0%
122-01	Infoblox DNS/DHCP	Planning	12/11/2013	2/19/2014	TBD	2/19/2014	0%			3 -	-14%			3	-8%
123-01	ERCOT Native Load Calculation	Planning	12/17/2013	2/19/2014	TBD	2/12/2014	10%				7%				10%
SCR769	CRRAH Digital Certificate New Role for Read Only Access	Planning	1/15/2014	3/14/2014	TBD	3/14/2014	0%				0%				0%



Project Number	Projects in Execution Phase	Phase	Baseline Phase Start	Baseline Go- Live Target	Scheduled Go-Live Date	Scheduled Phase Finish	Schedule Status	2014 Variance		Total Variance
016-01	ADP-IDM Interface	Execution	11/6/2013	3/13/2014	3/12/2014	4/22/2014	0%	0%		7%
017-01	Oracle 11g Upgrade	Execution	10/10/2012	4/2/2014	3/25/2014	4/24/2014	1%	2%		1%
047-01	CMSDK/MIR Replacement	Execution	4/24/2013	12/8/2013	3/31/2014	5/21/2014	3 -49%	229	6	3 -38%
057-01	EPS Metering DB Redesign	Execution	4/17/2013	9/6/2013	7/28/2014	8/7/2014	3 -228%	0%		3 -141%
066-01	Planning Site Transition to MIS	Execution	10/16/2013	5/2/2014	5/2/2014	7/2/2014	0%	149	6	13%
077-01	Contract Lifecycle Management	Execution	9/11/2013	5/5/2014	5/5/2014	7/23/2014	0%	3%		1%
083-01	Centralized Application Log Management	Execution	8/28/2013	5/7/2014	5/7/2014	10/3/2014	0%	-49	5	-1%
TBD	Capital Efficiencies and Enhancements - 2014	Execution	1/1/2014	12/31/2014	12/31/2014	12/31/2014	0%	0%		0%
107-01	IBM AIX Operating System Upgrades	Execution	1/29/2014	5/2/2014	4/4/2014	7/31/2014	30%	4%		4%
114-01	Lawson Security	Execution	1/29/2014	2/17/2014	2/17/2014	3/5/2014	0%	3 -479	6	3 -41%
116-01	Collage Replacement	Execution	2/6/2014	6/23/2014	6/25/2014	8/6/2014	-1%	0%		52%
118-01	Mitigation Plan RTCA Enhancements	Execution	2/5/2014	4/18/2014	4/18/2014	5/16/2014	0%	349	6	28%
10052_01	Settlement System Upgrade	Execution	1/25/2012	10/10/2014	10/10/2014	3/3/2015	0%	6 -429	6	-4%
2014 PC	Program Control - 2014	Execution	1/1/2014	1/31/2014	1/31/2014	1/31/2014	0%	0%		0%
99914	Minor Cap - 2014	Execution	1/1/2014	12/31/2014	12/31/2014	12/31/2014	0%	109	6	10%
RRs	Revision Request Funding - 2014	Execution	1/1/2014	12/31/2014	12/31/2014	12/31/2014	0%	0%		0%
NPRR485	Clarification for Fuel Adder Provisions	Execution	10/23/2013	2/28/2014	2/28/2014	3/31/2014	0%	2		2
NPRR532	Performance Measurement and Verification and Telemetry Requirements for Load Resources Providing Non-Spin	Execution	1/8/2014	6/1/2014	6/1/2014	7/1/2014	0%	2		2
NPRR555	Load Resource Participation in Security-Constrained Economic Dispatch	Execution	1/8/2014	6/1/2014	6/1/2014	7/1/2014	0%	2		2
NPRR564	Thirty-Minute Emergency Response Service (ERS) and Other ERS Services	Execution	1/8/2014	4/27/2014	4/27/2014	7/1/2014	0%	2		2
NPRR568	Real-Time Reserve Price Adder Based on Operating Reserve Demand Curve	Execution	1/8/2014	6/1/2014	6/1/2014	7/1/2014	0%	2		2
OBD	Setting the Shadow Price Caps and Power Balance Penalties in Security-Constrained Economic Dispatch	Execution	1/8/2014	6/1/2014	6/1/2014	7/1/2014	0%	2		2
Various	2014 Market System Enhancements	Execution	1/8/2014	6/1/2014	6/1/2014	7/1/2014	0%	2%		13%
SCR756	MarkeTrak Enhancements - Remaining SCR756 Items	Execution	2/5/2014	7/23/2014	7/23/2014	8/9/2014	0%	329	6	30%
Project Number	Projects in Stabilization	Phase	Baseline Execution Phase Start	Baseline Go- Live Target	Actual Go-Live Date	Scheduled Execution Phase Finish	Schedule Status	2014 Variance		Total Variance
NPRR240	Proxy Energy Offer Curve	Execution	1/8/2014	2/7/2014	2/7/2014	7/1/2014	0%	2		2
NPRR425	Creation of a WGR Group for GREDP and Base Point Deviation Evaluation	Execution	8/21/2013	3/26/2014	3/3/2014	3/3/2014	10%	6%		42%
NOGRR105	Generation Resource Frequency Response Test Procedure	Execution	12/4/2013	2/7/2014	2/7/2014	3/26/2014	0%	1%		10%
108-01	Alstom Load Forecasting Upgrade	Execution	11/20/2013	2/11/2014	2/11/2014	4/3/2014	0%	-49	5	-1%
113-01	Dev Hardware Refresh and Virtualization Expansion	Execution	11/13/2013	1/24/2014	1/9/2014	2/28/2014	20%	349	6	0%



Project Number	Projects On Hold	Phase	Forecast Start Date	Baseline Phase Finish	Scheduled Go-Live Date	Scheduled Phase Finish	Schedule Status	Fund	ding Request	2014 Forecast Spend	2014 Variance	Sum of Total Budgets	Total Forecast Spend	Total Variance
PROJECT	S ON HOLD (Count = 1) Sorted by	Project Nun	nber					\$	155,843	\$ 152,815		\$ 155,843	\$ 155,823	
NPRR327	State Estimator Data Redaction Methodology	On Hold	12/5/2012	2/12/2013	TBD	TBD	4				1%			0%
Project Number	Projects Not Yet Started	Phase	Forecast Start Date				,	Fund	ding Request	2014 Forecast Spend	2014 Variance	Sum of Total Budgets	Total Forecast Spend	Total Variance
PROJECT	S NOT YET STARTED (Count = 43)	Sorted by	Start Date					\$	9,523,073	\$ 9,523,073		\$ 18,588,869	\$ 18,588,869	
NPRR491	Updated Distribution Generation and Demand Response Information for ERCOT	Not Started	Feb 2014											
TBD	Cyber Security Project #10	Not Started	Feb 2014											
TBD	Production Virtualization Expansion	Not Started	Feb 2014											
TBD	EIF Database Utilization	Not Started	Feb 2014											
TBD	Move iTron LF Application to High Availability Environment	Not Started	Mar 2014											
TBD	On-Site Storage	Not Started	Mar 2014											
TBD	AV Upgrades to TCC1 Conference Rooms	Not Started	Mar 2014											
TBD	MP Communications Tool	Not Started	Mar 2014											
TBD	Upgrade TCC1 Safety Equipment	Not Started	Mar 2014											
TBD	Common Infrastructure	Not Started	Mar 2014											
NPRR495	Changes to Ancillary Services Capacity Monitor	Not Started	Apr 2014											
NPRR500	Posting of Generation that is Off but Available	Not Started	Apr 2014											
TBD	EIS Reporting and Control Systems Upgrade	Not Started	Apr 2014											
TBD	Replace N2N System	Not Started	Apr 2014											
NPRR487	QSGR Dispatch Adjustment	Not Started	May 2014											
NPRR543	Message for Confirmed E-Tags	Not Started	May 2014											
NPRR559	Revisions to MCE Calculation	Not Started	May 2014											
TBD	Cyber Security Project #11	Not Started	May 2014											
TBD	Symposium Call Center Replacement	Not Started	May 2014											
TBD	Email Redundancy	Not Started	Jun 2014											
NPRR272	Definition and Participation of Quick Start Generation Resources	Not Started	Jul 2014											
	Exemption of ERS-Only QSEs from Collateral and Capitalization Requirements	Not Started	Jul 2014											
	Resource Limits in Providing Ancillary Service	Not Started	Jul 2014											
	ERCOT System Change Allowing Independent Master QSE to Represent Split Generation Resources	Not Started	Jul 2014											
TBD	OSI PI Ace	Not Started	Jul 2014											
TBD	Red Hat Jboss Operations Network	Not Started	Jul 2014											
TBD	Enterprise Vault Upgrade	Not Started	Jul 2014											
TBD	SOTE/MOTE Upgrade	Not Started	Jul 2014											



Project Number	Projects Not Yet Started	Phase	Forecast Start Date					Funding Request	2014 Forecast Spend	2014 Variance	Sum of Total Budgets	Total Forecast Spend	Total Variance
NPRR256	Sync with PRR787, Add Non-Compliance Language to QSE Performance Standards	Not Started	Aug 2014										
TBD	Blackstart Facilities Enhancements	Not Started	Aug 2014										
NOGRR084	Daily Grid Operations Summary Report	Not Started	Sep 2014										
TBD	EDW Platform Transition Phase 2	Not Started	Sep 2014										
TBD	REC Rewrite & Refresh	Not Started	Sep 2014										
TBD	VSAT/TSAT Upgrade Phase 2	Not Started	Sep 2014										
NPRR210	Wind Forecasting Change to P50, Sync with PRR841	Not Started	Oct 2014										
NPRR439	Updating a Counter-Party's Available Credit Limit for Current Day DAM	Not Started	Oct 2014										
NPRR553	Monthly BLT Payment and Charge for Presidio Exception	Not Started	Oct 2014										
TBD	MP Online Data Entry - Ph 2	Not Started	Oct 2014										
TBD	Appworx Replaces TIBCO Code in CSI Framework	Not Started	Oct 2014										
TBD	Replace Paperfree	Not Started	Oct 2014										
TBD	Replace Actional Policy Manager	Not Started	Oct 2014										
TBD	Voice Over IP (VOIP) Replacement for PBX	Not Started	Oct 2014										
NPRR455	CRR Shift Factors Report	Not Started	Nov 2014										
Project Number	Projects Completed in the Current Year	Phase	Baseline Execution Phase Start	Baseline Go- Live Target	Actual Go-Live Date	Actual Execution Phase Finish	Schedule Status	Funding Request	2014 Actual Spend	2014 Variance	Sum of Total Budgets	Total Actual Spend	Total Variance
PROJECT	TS COMPLETED IN 2014 (Count = 0) Sorted	d by Project						s -	\$ -		s -	\$ -	
SUMMAR	Y												
SUMMAR	Y							Sum of 2014 Budgets	2014 Forecast Spend		Sum of Total Budgets	Total Forecast Spend	
		ad Projects				Projects In Flig	nt	Budgets				Spend	
SUMMAR	Y KPI Budget Measure - Execution/Complet	ed Projects				Projects In Flig		Budgets	Spend		Budgets	Spend	
-1%	KPI Budget Measure - Execution/Complet						t Started	Budgets \$ 21,780,738	\$ 21,279,535		Budgets \$ 40,632,077	\$ 39,168,327	
						Projects Not Ye	t Started	Budgets \$ 21,780,738 \$ 9,523,073	\$ 21,279,535 TBD \$ -		Budgets   \$ 40,632,077   \$ 18,588,869   \$ -	\$ 39,168,327 TBD	
-1%	KPI Budget Measure - Execution/Complet					Projects Not Yo Projects Comp	t Started eted	Budgets   \$ 21,780,738   \$ 9,523,073   \$ -	\$ 21,279,535 TBD \$ -		Budgets   \$ 40,632,077   \$ 18,588,869   \$ -	\$ 39,168,327 TBD	
-1%	KPI Budget Measure - Execution/Complet KPI Schedule Measure - Execution/Compl	eted Projec				Projects Not Your Projects Comp	t Started eted	Budgets   \$ 21,780,738   \$ 9,523,073   \$ - \$ 31,303,811   \$ 25,000,000	\$ 21,279,535 TBD \$ - \$ 21,279,535		Budgets   40,632,077   5   18,588,869   5   - 59,220,946	\$ 39,168,327 TBD	
-1%	KPI Budget Measure - Execution/Complet	eted Projec				Projects Not Your Projects Comp	t Started eted  ng  1 Current p	Sudgets   \$ 21,780,738   \$ 9,523,073   \$ - \$ 31,303,811   \$ 25,000,000	\$ 21,279,535 TBD \$ - \$ 21,279,535		Budgets   40,632,077   5   18,588,869   5   -     59,220,946	\$ 39,168,327 TBD	
-1%	KPI Budget Measure - Execution/Complet KPI Schedule Measure - Execution/Compl Stoplight Calculation Defini	eted Projec				Projects Not Yo Projects Comp TOTAL  Project Fundi	t Started eted  ng  1 Current p 2 Project is	\$ 21,780,738 \$ 9,523,073 \$ - \$ 31,303,811 \$ 25,000,000	\$ 21,279,535  TBD  \$ - \$ 21,279,535   xpected, resulting in actined effort so individual	I spend forecast	Budgets   \$ 40,632,077   \$ 18,588,869   \$ - \$ \$ 59,220,946   \$ md/or time required is not measured	\$ 39,168,327 TBD \$ - \$ 39,168,327	
-1%	KPI Budget Measure - Execution/Complete KPI Schedule Measure - Execution/Comple  Stoplight Calculation Defini Schedule: Count of Execution and Completed Proje	eted Projec				Projects Not Yo Projects Comp TOTAL  Project Fundi	t Started eted  1 Current p 2 Project is 3 Current p	\$ 21,780,738 \$ 9,523,073 \$ - \$ 31,303,811 \$ 25,000,000	\$ 21,279,535 TBD \$ - \$ 21,279,535  xpected, resulting in actined effort so individue or than expected, resu	I spend forecast	Budgets   \$ 40,632,077   \$ 18,588,869   \$ - \$ \$ 59,220,946   \$ md/or time required is not measured	\$ 39,168,327 TBD \$ - \$ 39,168,327	
-1%	KPI Budget Measure - Execution/Complet KPI Schedule Measure - Execution/Compl Stoplight Calculation Defini	eted Projec				Projects Not Yo Projects Comp TOTAL  Project Fundi	t Started eted  1 Current p 2 Project is 3 Current p 4 Project te	## Budgets  \$ 21,780,738  \$ 9,523,073  \$ -  \$ 31,303,811  \$ 25,000,000  ## Asset took longer than ear a component of a comb hase requiring more lab imporarily placed on hold	\$ 21,279,535 TBD \$ - \$ 21,279,535  xxpected, resulting in ac inde effort so individue or than expected, resulting in action of the expected of the expected or than expected, resulting in action of the expected of the expec	al spend forecast lting in additional t	Budgets   \$ 40,632,077   \$ 18,588,869   \$ - \$ \$ 59,220,946   \$ md/or time required is not measured	\$ 39,168,327 TBD \$ - \$ 39,168,327	
-1%	KPI Budget Measure - Execution/Complete KPI Schedule Measure - Execution/Comple  Stoplight Calculation Defini Schedule: Count of Execution and Completed Projec / Count of Execution and Completed Projec	eted Projections				Projects Not Yo Projects Comp TOTAL  Project Fundi	t Started eted  1 Current p 2 Project is 3 Current p 4 Project te 5 Resource	Budgets \$ 21,780,738 \$ 9,523,073 \$ - \$ 31,303,811 \$ 25,000,000  hase took longer than e: a component of a comb hase requiring more lab- imporarily placed on hoke c constraints resulted in	\$ 21,279,535 TBD \$ - \$ 21,279,535  xpected, resulting in ac inde effort so individue or than expected, resulting in action of the expected and the effort so individue or than expected, resulting in action of the expected and th	al spend forecast	Budgets   \$ 40,632,077   \$ 18,588,869   \$ - \$ \$ 59,220,946   \$ md/or time required is not measured	\$ 39,168,327 TBD \$ - \$ 39,168,327	
-1%	KPI Budget Measure - Execution/Complet  KPI Schedule Measure - Execution/Comple  Stoplight Calculation Defini  Schedule: Count of Execution and Completed Projec  Count of Execution and Completed Projec  Budget: (Total Budget of Execution and Complete	eted Projec  tions  cts with Variants  d Projects	nce >= 10%			Projects Not Your Projects Comp	t Started eted  1 Current p 2 Project is 3 Current p 4 Project te 5 Resource	## Budgets  \$ 21,780,738  \$ 9,523,073  \$ -  \$ 31,303,811  \$ 25,000,000  ## Asset took longer than ear a component of a comb hase requiring more lab imporarily placed on hold	\$ 21,279,535 TBD \$ - \$ 21,279,535  xpected, resulting in ac inde effort so individue or than expected, resulting in action of the expected and the effort so individue or than expected, resulting in action of the expected and th	al spend forecast	Budgets   \$ 40,632,077   \$ 18,588,869   \$ - \$ \$ 59,220,946   \$ md/or time required is not measured	\$ 39,168,327 TBD \$ - \$ 39,168,327	
-1%	KPI Budget Measure - Execution/Complet  KPI Schedule Measure - Execution/Comple  Stoplight Calculation Defini  Schedule: Count of Execution and Completed Projec  / Count of Execution and Completed Projec  Budget: (Total Budget of Execution and Complete - Total Forecast Spend of Execution and Complete	tions  tts with Variants d Projects appleted Projects appleted Projects	nce >= 10%			Projects Not Yo Projects Comp TOTAL  Project Fundi	t Started eted  1 Current p 2 Project is 3 Current p 4 Project te 5 Resource	Budgets \$ 21,780,738 \$ 9,523,073 \$ - \$ 31,303,811 \$ 25,000,000  hase took longer than e: a component of a comb hase requiring more lab- imporarily placed on hoke c constraints resulted in	\$ 21,279,535 TBD \$ - \$ 21,279,535  xpected, resulting in ac inde effort so individue or than expected, resulting in action of the expected and the effort so individue or than expected, resulting in action of the expected and th	al spend forecast	Budgets   \$ 40,632,077   \$ 18,588,869   \$ - \$ \$ 59,220,946   \$ md/or time required is not measured	\$ 39,168,327 TBD \$ - \$ 39,168,327	
-1%	KPI Budget Measure - Execution/Complet  KPI Schedule Measure - Execution/Comple  Stoplight Calculation Defini  Schedule: Count of Execution and Completed Projec  Count of Execution and Completed Projec  Budget: (Total Budget of Execution and Complete	tions  tts with Variants d Projects appleted Projects appleted Projects	nce >= 10%			Projects Not Yo Projects Comp TOTAL  Project Fundi	t Started eted  1 Current p 2 Project is 3 Current p 4 Project te 5 Resource	Budgets \$ 21,780,738 \$ 9,523,073 \$ - \$ 31,303,811 \$ 25,000,000  hase took longer than e: a component of a comb hase requiring more lab imporarily placed on hoke c constraints resulted in	\$ 21,279,535 TBD \$ - \$ 21,279,535  xpected, resulting in ac inde effort so individue or than expected, resulting in action of the expected and the effort so individue or than expected, resulting in action of the expected and th	al spend forecast	Budgets   \$ 40,632,077   \$ 18,588,869   \$ - \$ \$ 59,220,946   \$ md/or time required is not measured	\$ 39,168,327 TBD \$ - \$ 39,168,327	

