Information Technology Report

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Vice President & CIO

ERCOT Board of Directors

April 20, 2010

March 2010 Highlights

- **Retail Market service improvements:** The 2009 Retail Market Service Level Agreement included commitments by ERCOT to establish performance benchmarks in addition to existing system availability targets. In March, ERCOT established performance benchmarks in collaboration with the MarkeTrak Task Force and the Texas Data Transport Working Group. These benchmarks measure the response times for four components of the MarkeTrak application and provide greater insight into MarkeTrak performance. These metrics will be reviewed monthly with stakeholder groups.
- **Nodal databases' monitoring and management improvements**: In March, the implementation of Oracle Grid Control was completed for all Nodal databases. Oracle Grid Control is an enterprise database management solution that improves monitoring and management of databases, and aids in diagnostics and issue resolution. This capability serves as an important tool for Database Administrators in ensuring high availability of Nodal systems, a key requirement for Nodal Operational Readiness.

March 2010 Highlights

- **Unplanned outage of Retail Transaction Processing**: Hardware that provides connectivity to the storage array failed after it was rebooted during routine maintenance activities, resulting in an unplanned outage of Retail Transaction Processing services on 3/8/2010 for 633 minutes. The failed components were replaced and disk data integrity scans were performed to restore the application.
- **Unplanned outage of Texas Market Link (TML)**: A hardware failure resulted in a TML outage on 3/1/2010 for 103 minutes. Hardware malfunction was determined as the root cause and was replaced as the permanent fix.
- **Unplanned Real Time Balancing Market outage**: The Market Operator Interface failed due to a loss of connectivity with a network drive, resulting in an outage of the Real Time Balancing Market (RTBM) for 3 intervals (45 minutes) on 3/31/10. The network drive was reconfigured and the server processes were restarted to restore functionality. Root cause was identified and permanent resolution is scheduled to be completed by April 15th.

2010 Net Service Availability

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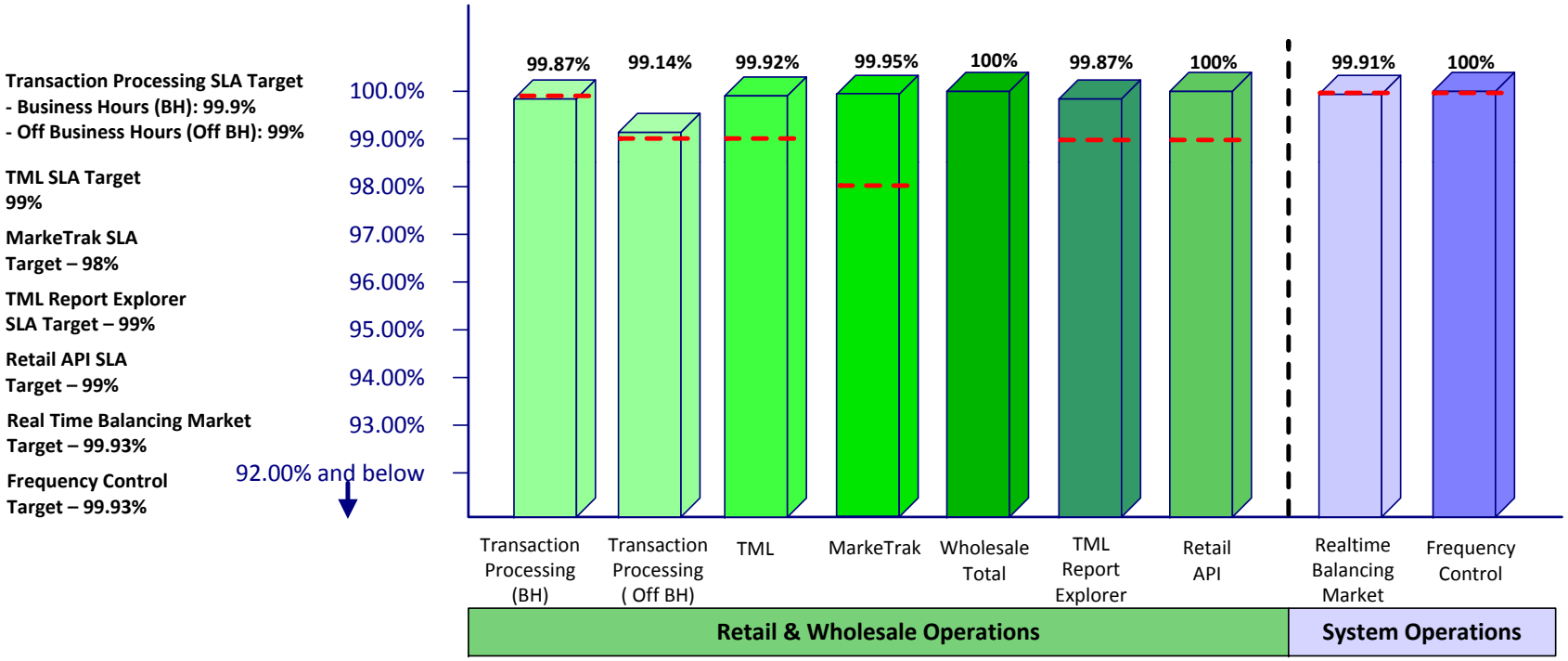
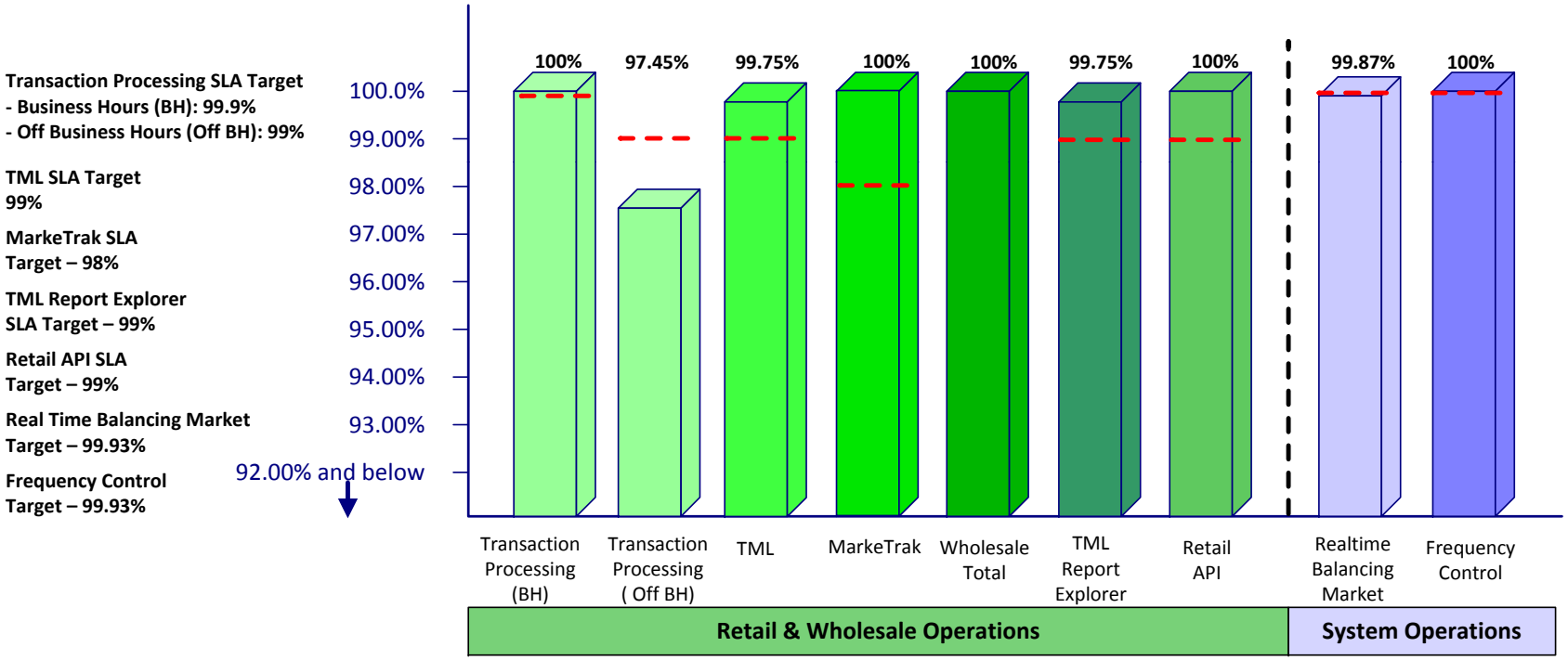
Through March 31st, 2010

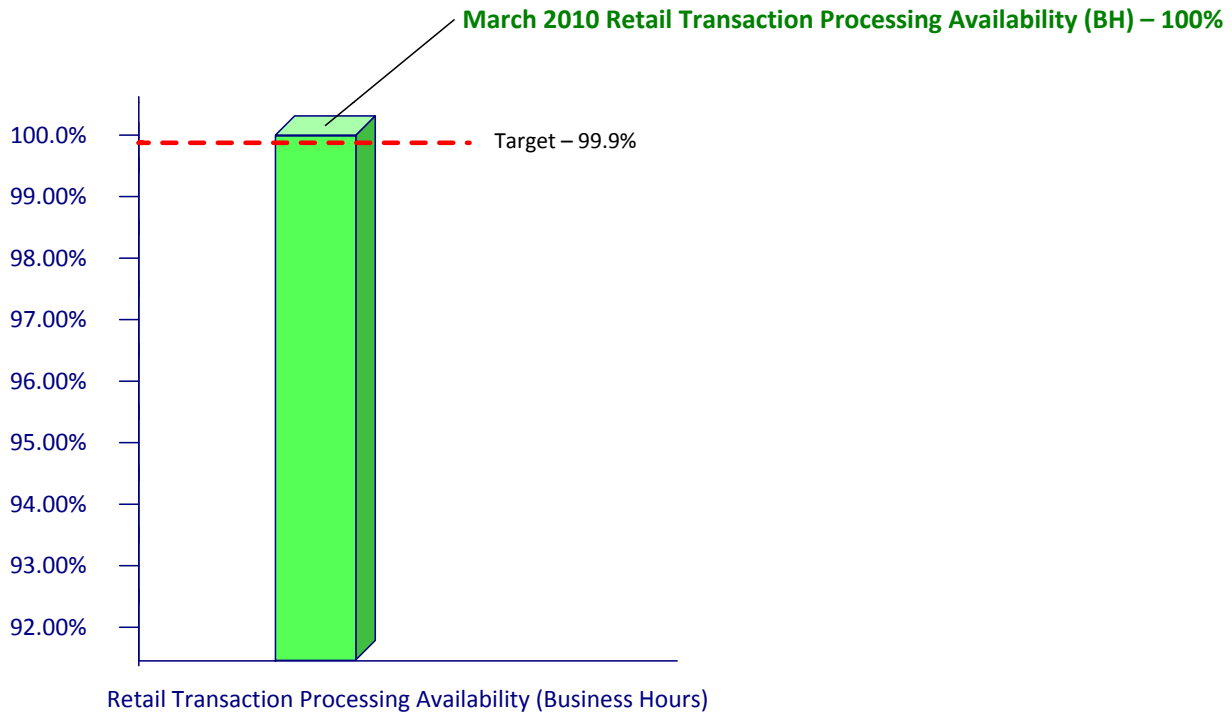


March 2010 Net Service Availability

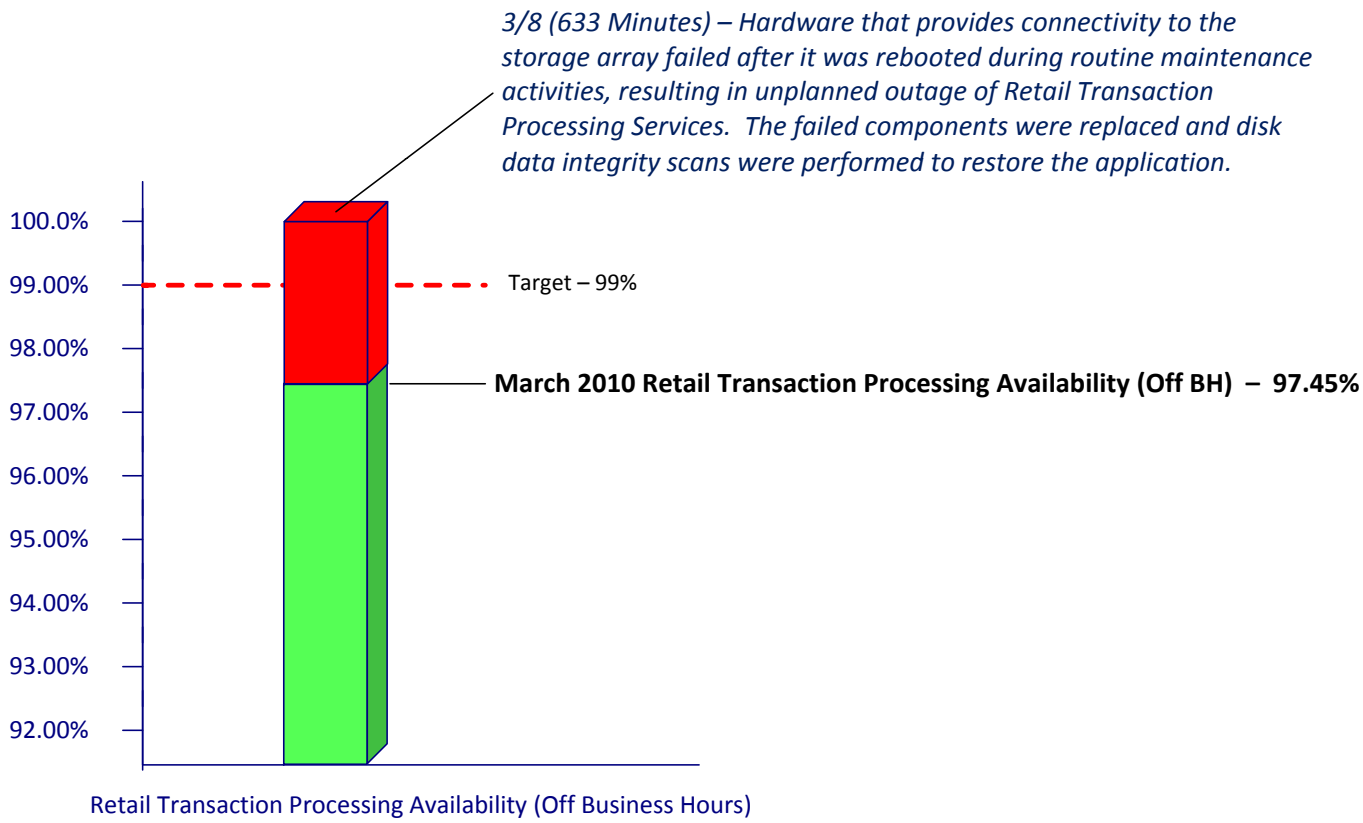


Retail Transaction Processing Availability Summary

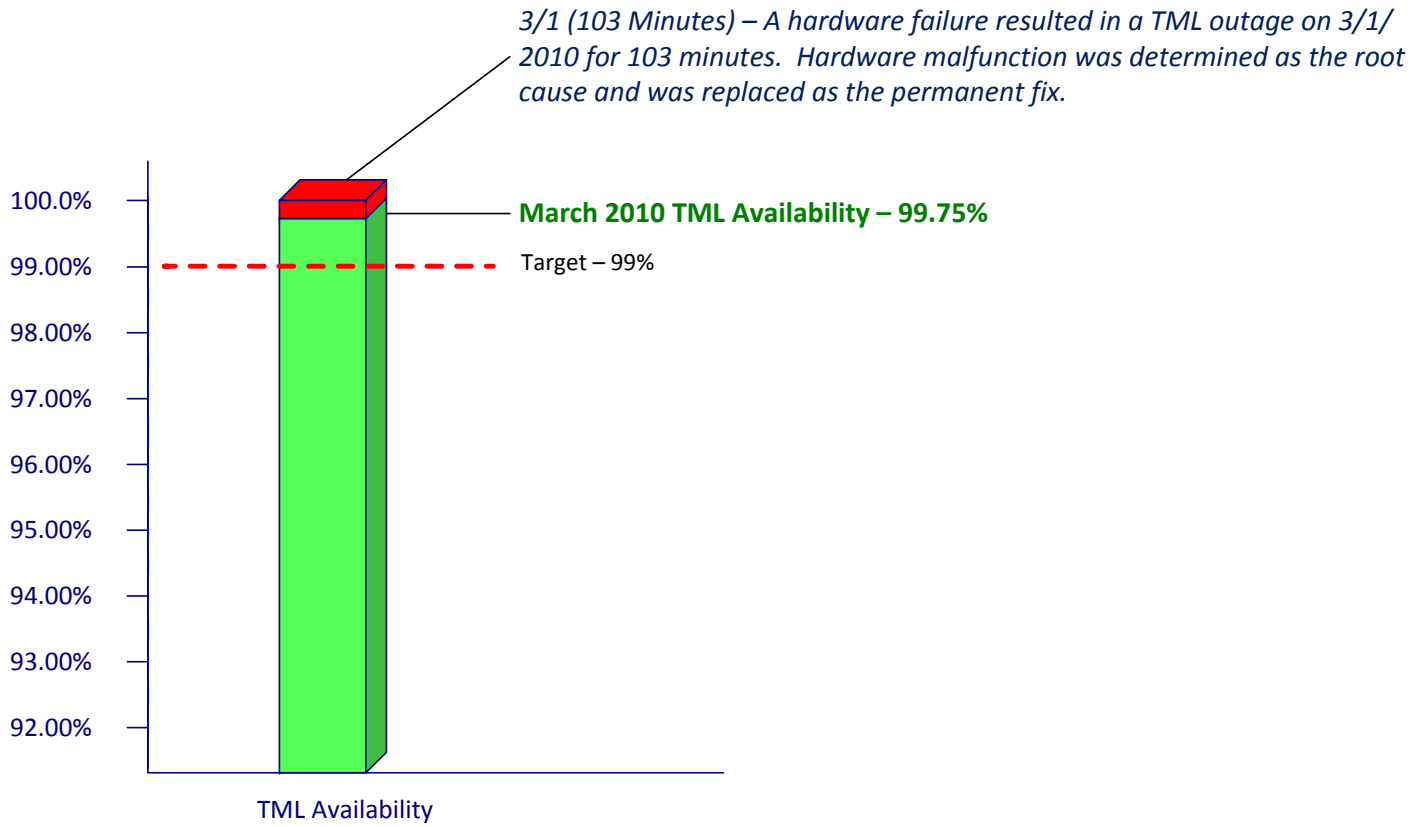
March 2010 Retail Transaction Processing Availability Summary (Business Hours)



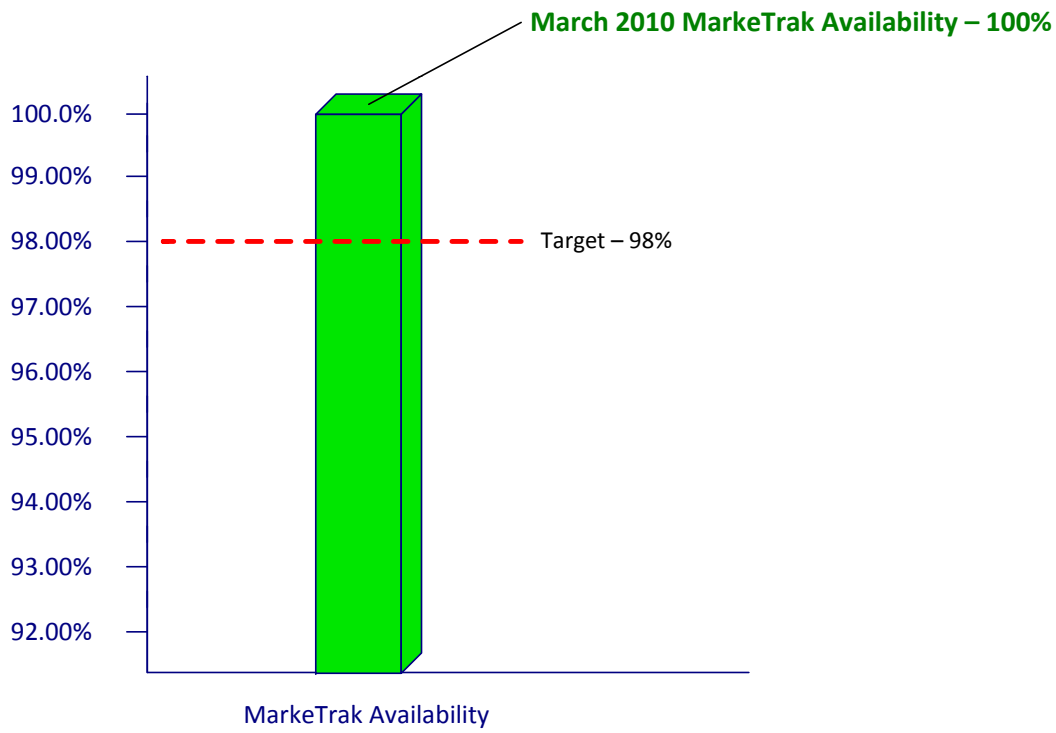
March 2010 Retail Transaction Processing Availability Summary (Off Business Hours)



March 2010 TML Availability Summary

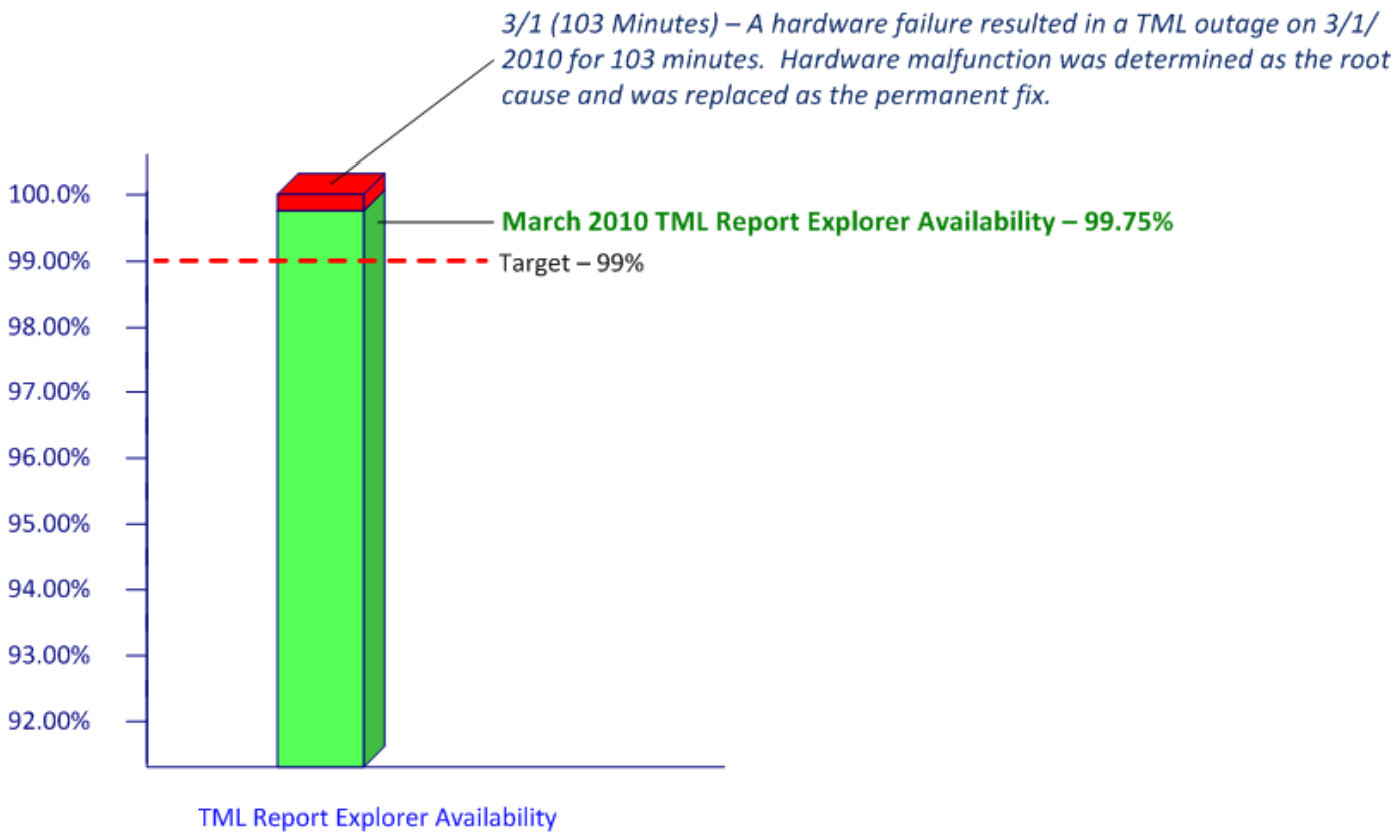


March 2010 MarkeTrak Availability Summary



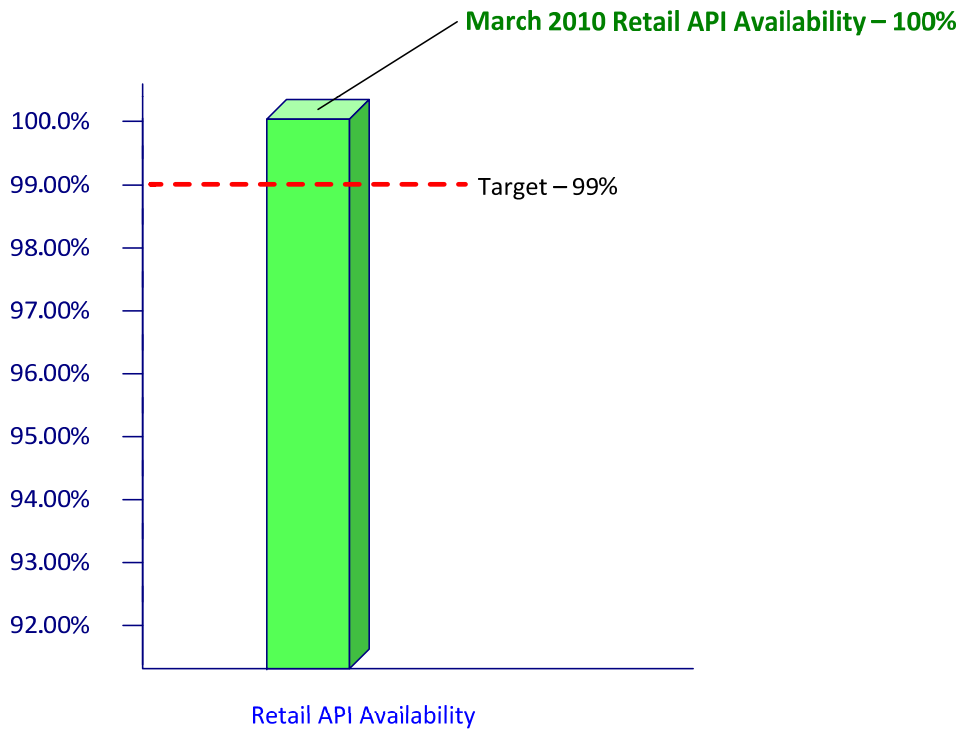
TML Report Explorer Availability Summary

March 2010 TML Report Explorer Availability Summary



Retail API Availability Summary

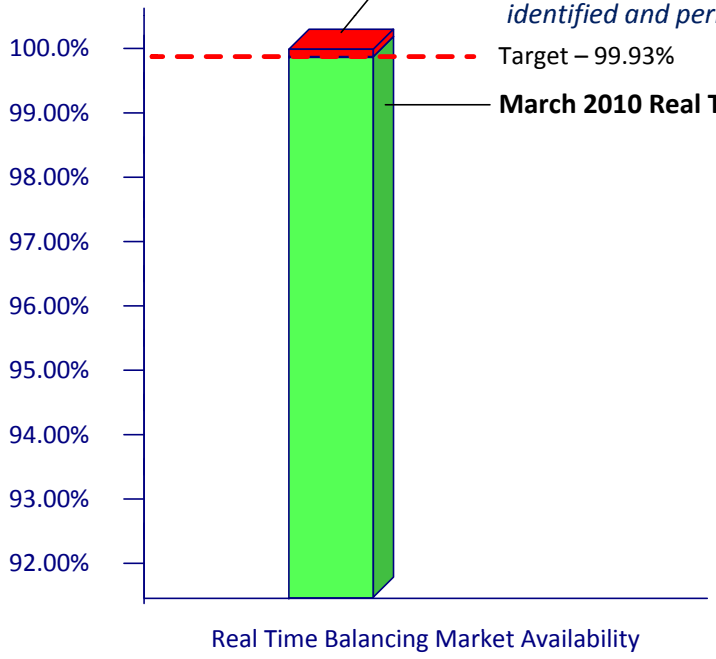
March 2010 Retail API Availability Summary



March 2010 Real Time Balancing Market Availability Summary

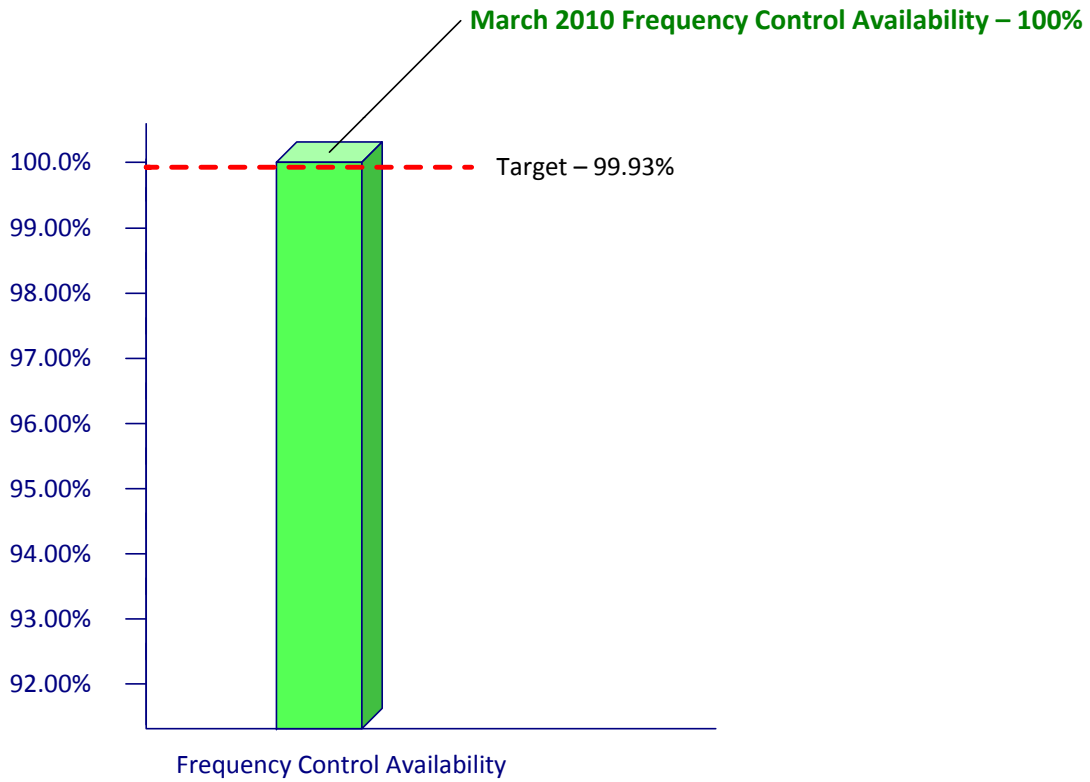
3/31 (45 Minutes) – The Market Operator Interface failed due to a loss of connectivity with a network drive, resulting in an outage of the Real Time Balancing Market (RTBM) for 3 intervals. The network drive was reconfigured and the server processes were restarted to restore functionality. Root cause was identified and permanent resolution is scheduled to be completed by April 15th.

3/20 (15 Minutes) – The Market Operator Interface locked up, resulting in an outage of the Real Time Balancing Market for 1 interval. The system resumed normal functionality automatically for subsequent intervals. Root cause was identified and permanent resolution is scheduled to be completed by April 15th.

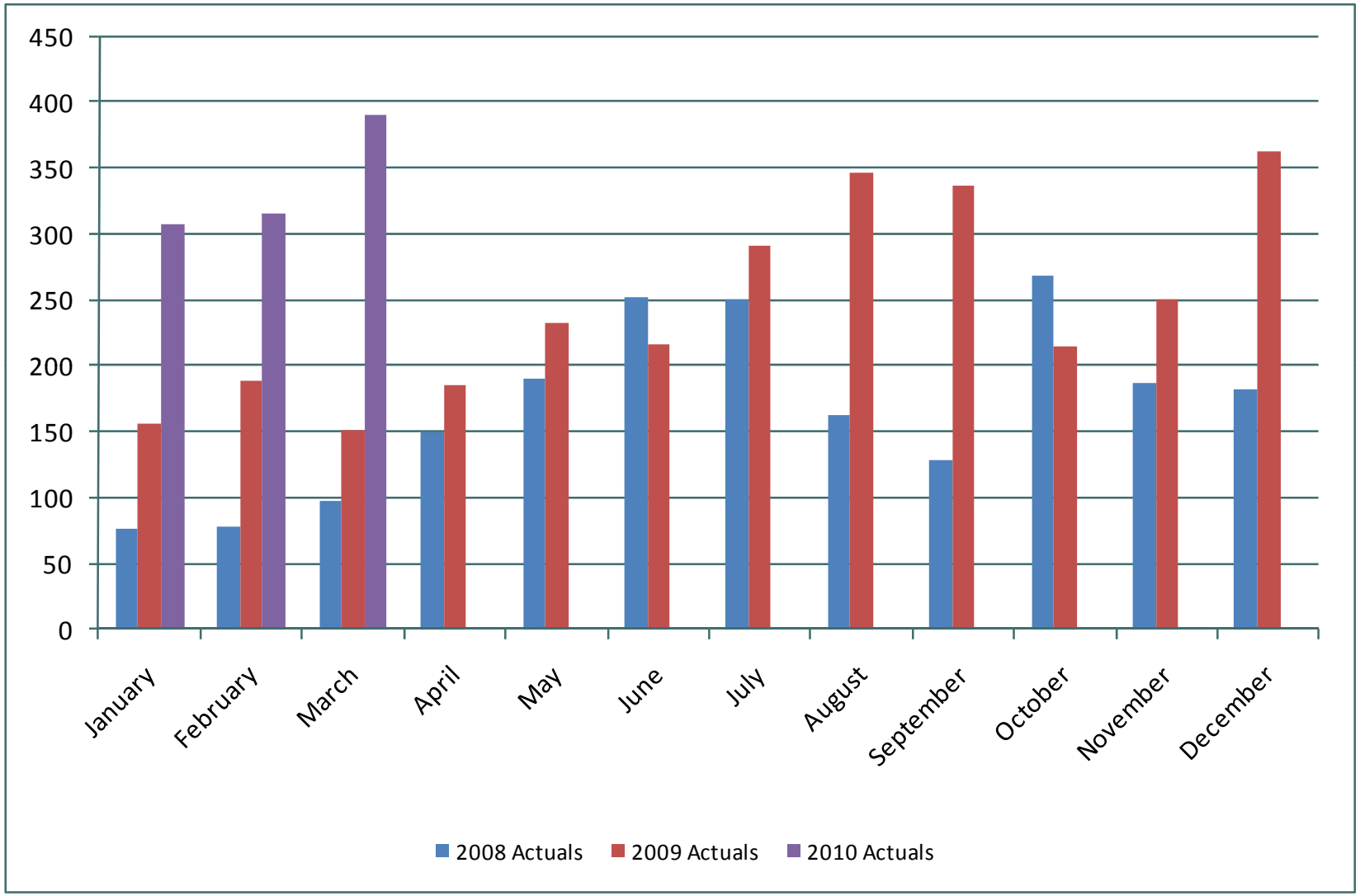


Frequency Control Availability Summary

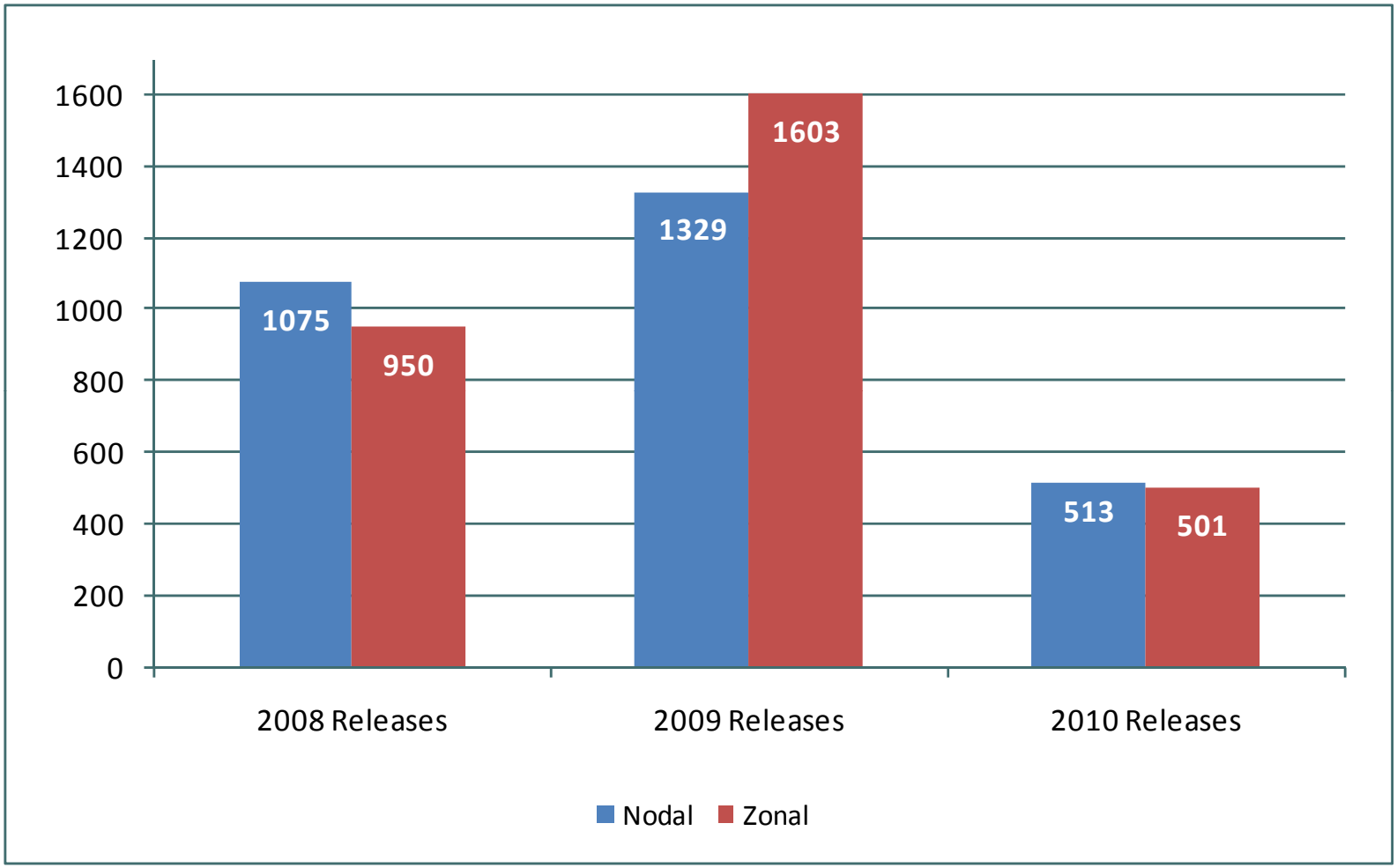
March 2010 Frequency Control Availability Summary



Release Management Metrics (3-Year Releases by Month)



Release Management Metrics (Nodal vs. Zonal Releases)



***Note*: 2010 metrics are YTD**

ERCOT Public Website Metrics (March 2010)

Website Profiles

Name	Reports	Status	Visits	Avg. Time on Site	Bounce Rate	Completed Goals	Visits % Change	Actions
http://faq.ercot.com UA-460876-6								
faq.ercot.com	View report	✓	1,031	00:02:54	46.94%	0	-4.00%	
http://nodal.ercot.com UA-460876-5								
nodal.ercot.com	View report	✓	11,844	00:03:57	33.42%	0	-18.63%	
http://planning.ercot.com UA-460876-7								
planning.ercot.com	View report	✓	2,187	00:05:23	18.66%	0	-11.13%	
http://search.ercot.com UA-460876-8								
search.ercot.com	View report	✓	4,935	00:03:25	48.27%	0	-11.35%	
http://www.ercot.com UA-460876-2								
www.ercot.com	View report	✓	91,580	00:02:34	60.79%	1	-12.24%	

Find profile: Show rows: 10 1 of 2

Legend

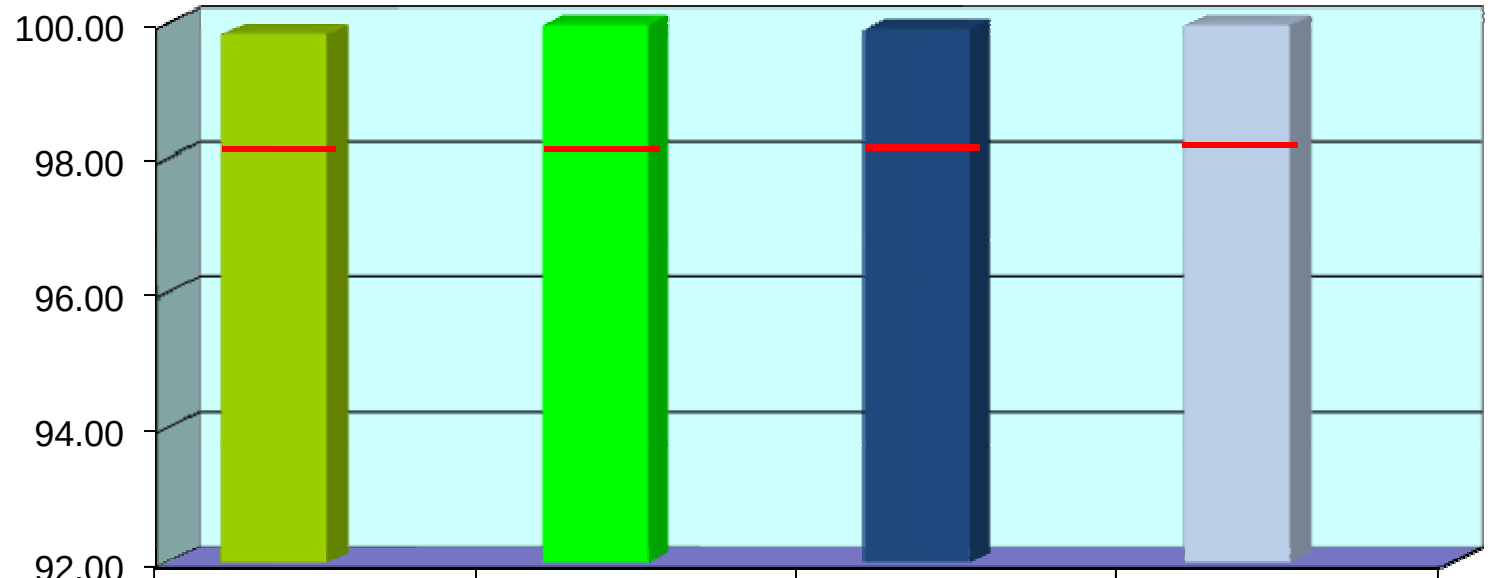
Bounce Rate: % of single page visits; **Completed Goals:** Measure of specific predefined actions completed by visitors;
% Change: % change in visits relative to previous month

Metrics Guide – Nodal Production

- **Aggregate Energy Management System (EMS)**
  - Measure of the availability of the software that provides real time grid control capability. Calculated as average of deployed & monitored components availability
- **Outage Scheduler**
  - Measure of the availability of the software to manage the submission, modification, deletion of schedules for various types of transmission and generation systems outages
- **Network Model Management System (NMMS)**
  - Measure of the availability of the software to manage the ERCOT network model. Calculated as availability of model management core engine (IMM)
- **Congestion Revenue Rights (CRR)**
  - Measure of the availability of the software to manage the financial instruments that help Market Participants hedge against losses due to transmission constraints

Nodal Production – March 2010 Net Availability

March 2010 Net Availability for Nodal Production systems



	Aggregate EMS	Outage Scheduler	NMMS	CRR
Availability	99.86	100.00	99.94	100.00
SLA Target	98.00	98.00	98.00	98.00