Information Technology Service Availability Metrics

ERCOT Board of Directors
July 2008

Ron Hinsley

- **A combination of issues caused Retail Transaction Processing performance to be below service level expectation for June**

- **Human error contributed to a major portion of the service availability being below expectations:**
  – During an application restart on 6/1/08, steps of the verification process were missed, causing a 688 minute outage

- **Some changes have been completed and others are underway to enhance processes and procedures in order to prevent future incidents**
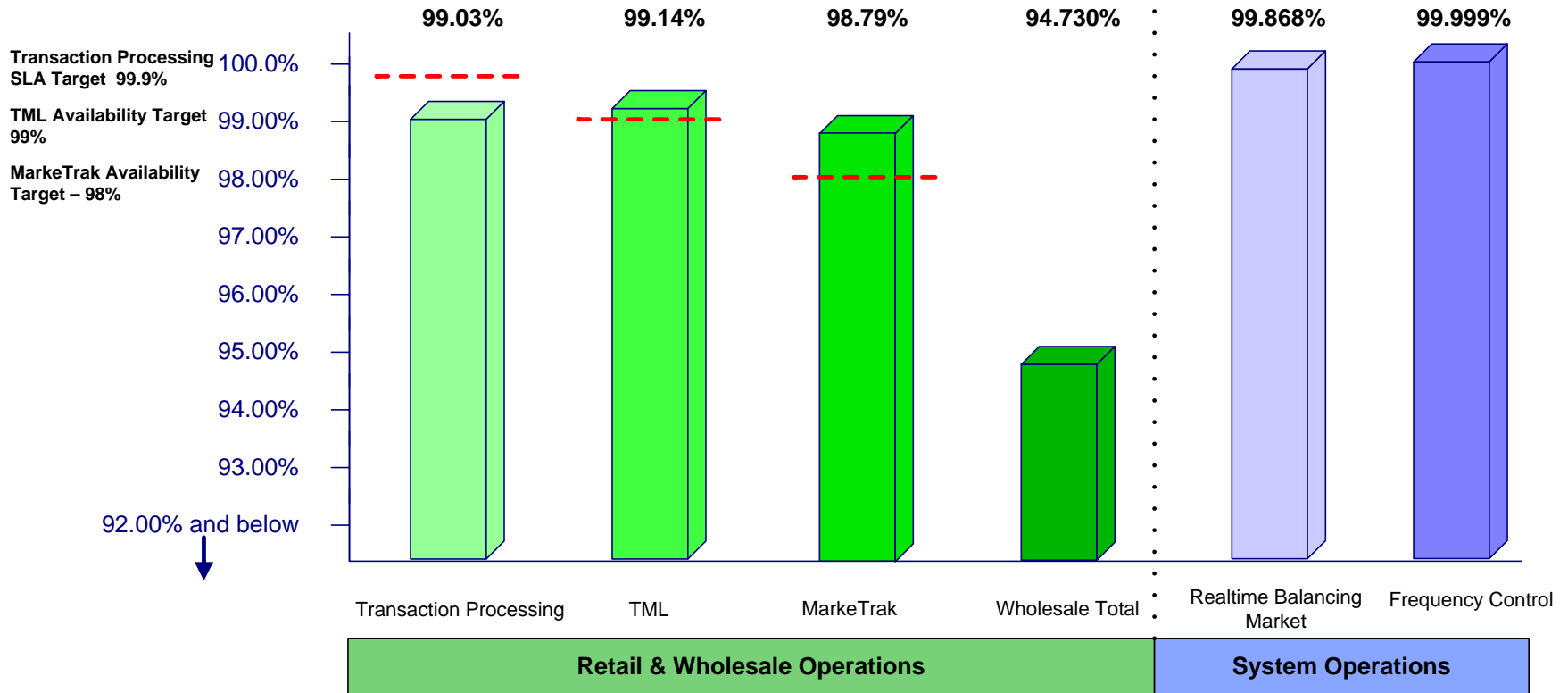
ERCOT

Retail & Wholesale Operations

- Retail Transaction Processing
  - Measure of the availability of the systems that process retail transactions
- Texas Market Link (TML)
  - Measure of the availability of the web-based application that provides access to both general and market participant specific data
- MarkeTrak
  - Measure of the availability of the web-based application that is used to track retail market transaction issues and resolve data discrepancies
- Wholesale Total
  - Measure of the success rate of ERCOT's settlement & billing batch process completing on schedule
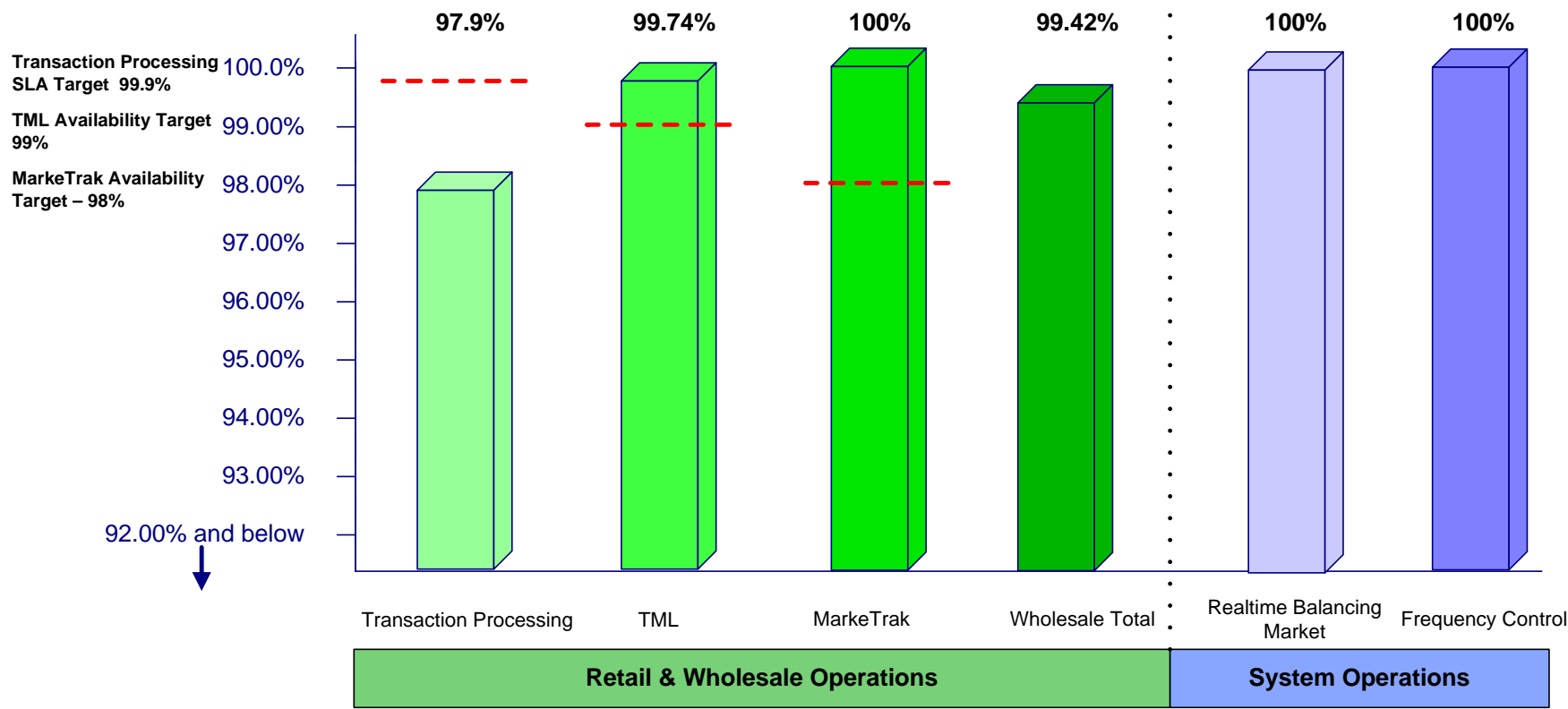
System Operations

- Real Time Balancing Market
  - Measure of the number of real time balancing market intervals (every 15 minutes) successfully performed
- Frequency Control
  - Measure of the availability of the software that controls frequency

2008 Net Service Availability
Through June 30, 2008

| | 99.03% | 99.14% | 98.79% | 94.730% | 99.868% | 99.999% |

Transaction Processing SLA Target 99.9%

TML Availability Target 99%

MarkeTrak Availability Target – 98%

100.0%
99.00%
98.00%
97.00%
96.00%
95.00%
94.00%
93.00%
92.00% and below

Transaction Processing | TML | MarkeTrak | Wholesale Total | Realtime Balancing Market | Frequency Control

Retail & Wholesale Operations | **System Operations**

June 2008 Net Service Availability

June 2008 Retail Transaction Processing Availability Summary

6/27: Application issues - Customer Registration Database experienced an outage due to Siebel order flow freeze up: 119 Minutes

6/3: Application issues - Siebel and Tibco outages due to the emergency implementation of SIR 11896: 59 Minutes

6/1: Human Error - TIBCO Siebel Adapter and Siebel Services restarted incorrectly following planned maintenance, causing outage: 688 Minutes

Target – 99.9%

June 2008 Retail Transaction Processing Availability – 97.9%

Chart y-axis: 100.0%, 99.00%, 98.00%, 97.00%, 96.00%, 95.00%, 94.00%, 93.00%, 92.00%

Retail Transaction Processing Availability

June 2008 TML Availability Summary

6/17: Infrastructure issues - Unplanned but necessary database patching resulted in unavailability of parts of TML: 107 Minutes

*June 2008 TML Availability – **99.74%***

Target – 99%

100.0%
99.00%
98.00%
97.00%
96.00%
95.00%
94.00%
93.00%
92.00%

TML Availability

June 2008 MarkeTrak Availability Summary

*June 2008 MarkeTrak Availability – **100%***

Target – 98%
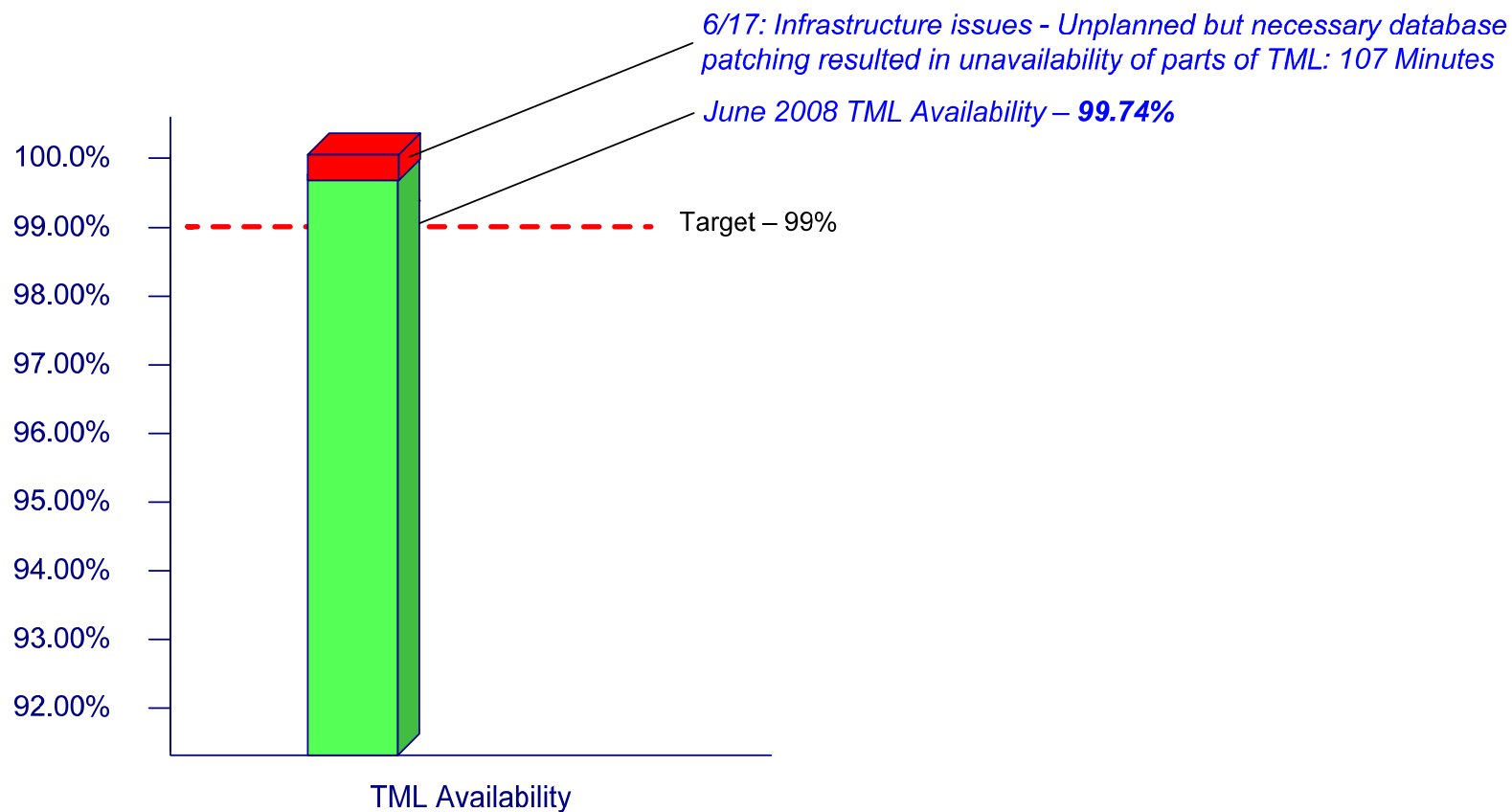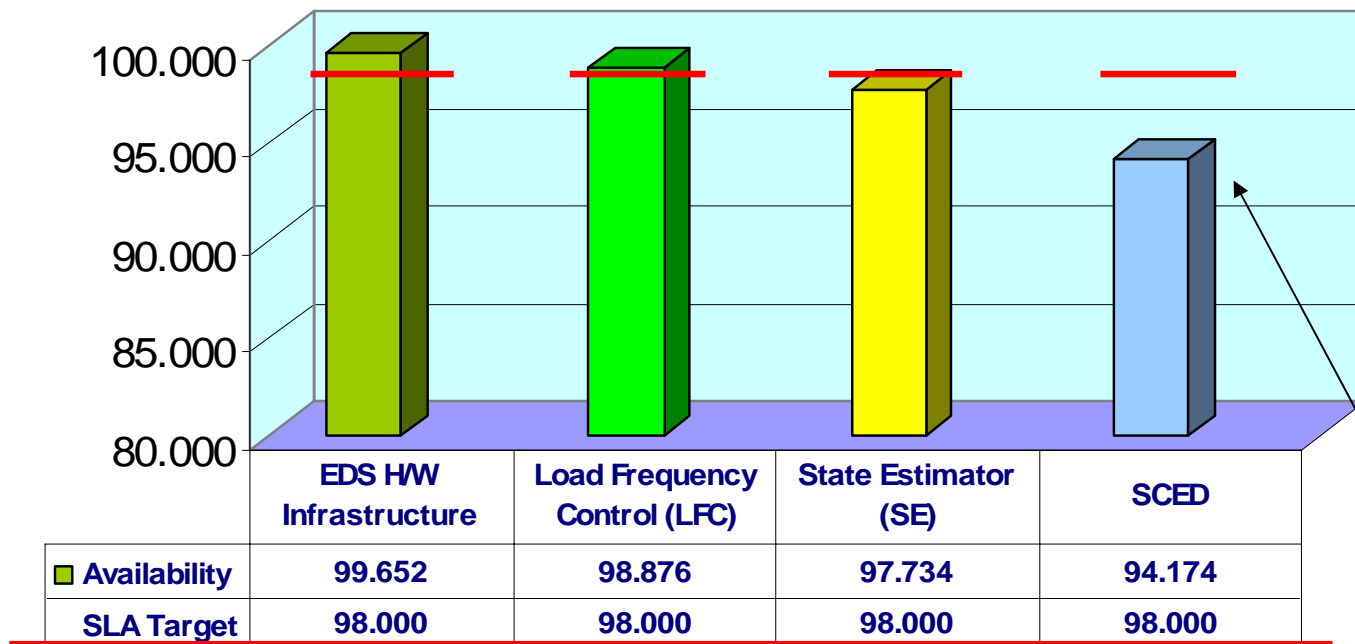
MarkeTrak Availability

- **EDS Hardware Infrastructure**
  - Measure of the availability of the systems that compose the "Early Delivery Systems" where Nodal applications are deployed
- **Load Frequency Control (LFC)**
  - Measure of the availability of the software that controls frequency
- **State Estimator**
  - Measure of the availability of the State Estimator software to mathematically confirm the real time power flows
- **Security Constrained Economic Dispatch (SCED)**
  - Measure of the availability SCED application to economically deploy generation

Nodal EDS Environment - June 2008 Net Availability

June 2008 Net Availability

	EDS H/W Infrastructure	Load Frequency Control (LFC)	State Estimator (SE)	SCED
Availability	99.652	98.876	97.734	94.174
SLA Target	98.000	98.000	98.000	98.000

There is a known issue with MMS causing SCED to fail, it will be resolved with a patch from the vendor in a future EDS release