



Electric Reliability Council of Texas

# Retail Market IT Services

Service Level Agreement

---

## **Summary:**

Availability targets and related service information for the IT services provided by ERCOT that facilitate retail customer choice in the ERCOT market.

**EFFECTIVE: 1/1/2012**

## Document Revisions

Date	Version	Description	Author(s)
March 23 <sup>rd</sup> , 2006	.9	First draft	Aaron Smallwood
March 28 <sup>th</sup> , 2006	.91	Revised draft	Aaron Smallwood
June 1 <sup>st</sup> , 2006	1.0	Final Version	Aaron Smallwood
June 15 <sup>th</sup> , 2006	1.1	Revised final version	Aaron Smallwood
May 1, 2007	2.0	2007 annual review revisions with ERCOT business and Market input	Aaron Smallwood
June 25 <sup>th</sup> , 2007	2.1	Revised following further Market input	Aaron Smallwood
June 18 <sup>th</sup> , 2008	2.2	Revised for 2008	Trey Felton
July 31 <sup>st</sup> , 2008	2.21	Updated	Trey Felton
Aug 28 <sup>th</sup> , 2008	2.22	Revisions from TDTWG	Trey Felton
Sept 25 <sup>th</sup> , 2008	2.3	Final revisions for TDTWG	Trey Felton
Oct 1 <sup>st</sup> , 2008	2.4	TDTWG approval with changes	Trey Felton
Oct 15 <sup>th</sup> , 2008	3.0	Approved by RMS	Trey Felton
Feb 22 <sup>nd</sup> , 2009	3.1	Quarterly Update	Trey Felton
Apr 15 <sup>th</sup> , 2009	3.2	Approved by RMS	Kyle Patrick
Jun 5 <sup>th</sup> , 2009	3.3	Initial updates for 2010. Added release weekend chart for 2010. Added Appendix with definitions. Clarified wordings. Recommendations for Incident Log.	Trey Felton
Sep 28 <sup>th</sup> , 2009	3.4	Updates: Dual-tiered SLA metric for Retail Processing. New graphs for outage windows.	Trey Felton
Oct 10 <sup>th</sup> , 2009	3.5	TDTWG Updates to graph colors, wording in 2.1.2, and chart sizes	TDTWG
Nov 2 <sup>nd</sup> , 2009	3.6	Updated definitions based on feedback from TDTWG. Updated MT verbiage section 2.2.3. Updates Outage definitions. Corrected error in Availability calculations for Retail.	Trey Felton
Nov 5 <sup>th</sup> , 2009	3.7	TDTWG Updates: revised outage definition.	Trey Felton
Nov 13 <sup>th</sup> , 2009	3.8	Changed 20% to 15% in outage definition	Trey Felton
Dec 2 <sup>nd</sup> , 2009	3.9	Review by TDTWG; minor changes	TDTWG
Dec 9 <sup>th</sup> , 2009	4.0	Approved by RMS	RMS
Sep 28 <sup>th</sup> , 2010	4.1	Updates for 2011 – new maintenance outage schedule, performance and availability monitoring changes, scope not changed.	Trey Felton
Aug 1 <sup>st</sup> , 2011	5.0	Updates for 2012 – added Release windows (same as prior to Nodal Go-Live, changed core hours SLA target.	Trey Felton
Sept 3 <sup>rd</sup> , 2011	5.1	Updated 2.1.2, 2.2.2, and 4.0	Trey Felton

---

## *Table of Contents:*

### *1. Introduction*

### *2. Retail Market IT Services*

#### *2.1. Retail Transaction Processing*

##### *2.1.1. Service Scope*

##### *2.1.2. Service Availability*

##### *2.1.3. Market Notification and Reporting*

#### *2.2. MarkeTrak*

##### *2.2.1. Service Scope*

##### *2.2.2. Service Availability*

##### *2.2.3. Market Notification and Reporting*

### *3. Retail Market IT Services Reporting*

### *4. Browser Compatibility*

### *5. Service Availability Renegotiations and Change Control Process*

### *6. Annual Review Process*

### *7. Approvals*

### *Appendix A: Definitions*

---

# 1. Introduction

This document describes the service availability targets, operating hours and reporting mechanisms for several IT services provided by ERCOT to the Texas competitive retail electric market.

Where applicable, these service targets build upon the requirements outlined in ERCOT Protocols Section 15 and the Retail Market Guide to provide additional guidance to Competitive Retailers and Transmission/Distribution Service Providers (TDSPs).

In the event of a conflict between this document and the ERCOT Protocols, Retail Market Guide or PUCT Substantive Rules, the Protocols or PUCT Substantive Rules take precedence over this document.

## 2. Retail Market IT Services

### 2.1 Retail Transaction Processing

#### 2.1.1 Service Scope

Retail Transaction Processing is the flow of retail transactions between ERCOT and Market Participants. The service is provided by an integrated group of applications and includes the following components:

- NAESB Proxy Servers
- NAESB
- Electronic Data Interchange (EDI)
- Enterprise Application Integration (EAI)
- Registration Application
- ERCOT maintained infrastructure supporting retail transaction processing

Excluded from the scope of the retail transaction processing service are the following systems that communicate with, but are not a primary component of, retail market transaction processing services:

- Enterprise Data Warehouse (EDW)
- Settlements & Billing Services
- Web Services (e.g. MarkeTrak, ERCOT.com)

#### 2.1.2 Service Availability

ERCOT targets retail transaction processing services to be available at least 99.9% of the time from 7am to 7pm (core hours) Monday through Friday, and outside of scheduled maintenance outage windows. ERCOT targets retail transaction processing to be available at least 99% of the time 7pm to 7am (non

core-hours) Monday through Friday, and all day Saturday and Sunday, excluding scheduled maintenance outage windows. Outages included in the retail transaction processing service availability metrics will be reported as follows:

**Any outage regardless of duration**

- NAESB Proxy Servers
- NAESB
- ERCOT maintained infrastructure supporting NAESB processes

**Outages greater than 30 minutes\***

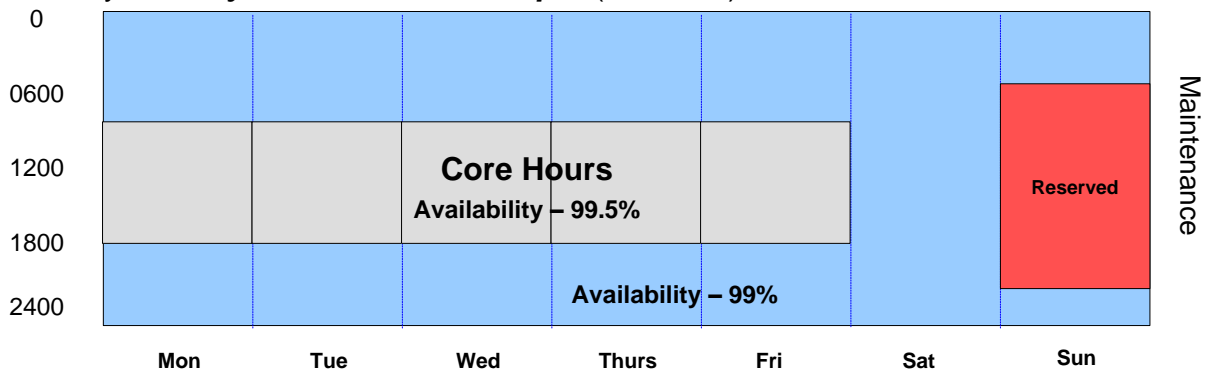
- Electronic Data Interchange (EDI)
- Enterprise Application Integration (EAI)
- Registration Application
- ERCOT maintained infrastructure supporting retail transaction processing

\*Market Notices will be sent in accordance with the Commercial Operations Market Guide, Appendix A.

<http://www.ercot.com/mktrules/guides/commercialops/current>

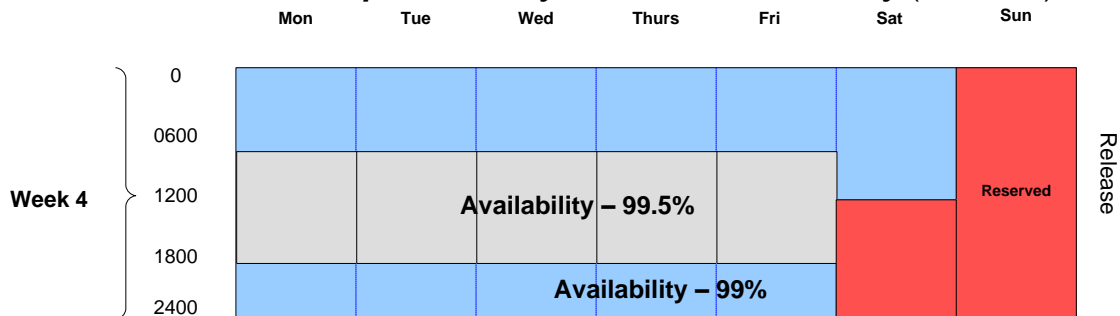
ERCOT reserves the following times as maintenance outage windows:

- Every **Sunday—6:00am until 9:00pm** (15 hours)



**Release Window:**

- 4<sup>th</sup> weekend\*— **12:00pm Saturday until 12:00am Monday** (36 hours)



**\*Exceptions:**

To accommodate Thanksgiving, the 2012 November Release window will be moved to the 2<sup>nd</sup> week of December. Outages excluded from the availability metric which do not count as unplanned outage time include any market-wide releases requiring Market Participants and ERCOT to coordinate system outages for major upgrades, such as TX SET implementations. ERCOT will coordinate and communicate such market-wide releases and outage expectations unique to each release via the stakeholder process. Exceptions for extended maintenance and release windows will be requested by ERCOT through the Texas Data Transport Working Group and Retail Market Subcommittee prior to the extended outage. Approved SLA exceptions will be tracked for reporting purposes (see example below).

Upon implementation of TXSET 4.0, the 4<sup>th</sup> weekend release window will be modified to comply with business day protocols, and the SLA will be updated to reflect these changes.

**Availability Breakdown:**

Service availability will be measured as a percentage of minutes that the service is available compared to the total number of minutes, excluding planned maintenance outage window time.

ERCOT will report SLA availability metrics for both core hours (99.9%) and non-core hours (99%).

**Core Hours:** Gross minutes per year at 99.9% = **187,200** (7am-7pm, 5 days/week, 52 weeks/year)

**99.9% availability = 187.2 unplanned outage minutes per year, or 3.12 hours**

**Non-core Hours:** Gross minutes per year at 99% = **338,400**

- Reserved maintenance outage minutes per year = **46,800**
- $338,400 - 46,800 = \mathbf{291,600}$  net availability minutes per year

**99% availability = 2916 unplanned outage minutes per year, or 48.6 hours**

### ***2.1.3 Market Notification and Reporting***

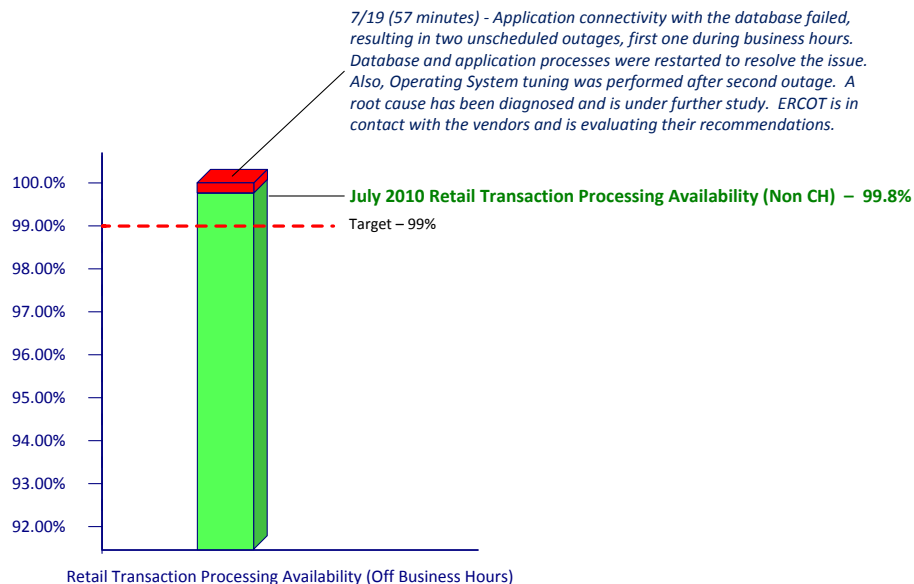
ERCOT will measure and report monthly retail transaction processing service availability and track annual service availability for each calendar year. These results will be reported monthly through the ERCOT governance process that includes the Texas Data Transport Working Group, the Retail Market Subcommittee, Technical Advisory Committee, and ERCOT Board of Directors.

ERCOT will maintain a log containing retail transaction processing incidents that will be updated monthly and made available on the ERCOT Service Level

Agreement website (<http://www.ercot.com/services/sla/>). This log will include service availability and detailed information regarding each incident related to retail transaction processing. ERCOT IT Management will make initial classification of each incident, based on criteria in Appendix A. Upon review through the stakeholder process, this classification may be changed.

## July 2010 Retail Transaction Processing Availability Summary (Non-core Hours)

### SAMPLE DATA



## 2.2 MarkeTrak

### 2.2.1 Service Scope

The MarkeTrak tool is a web-based database application used to track, manage, and store data utilized by ERCOT and Market Participants (MPs). This tool is the supported method to track ERCOT Retail market issue management and data discrepancies in the market.

Included in the scope of the MarkeTrak service are the user interfaces that MPs use to create, contribute to, and resolve issues. These are the API (application programmatic interface) and the GUI (graphical user interface).

### 2.2.2 Service Availability

ERCOT targets MarkeTrak and its user interfaces, both the GUI and API, to be available 99% of the time from 7:00am – 7:00pm during business days and

Saturday 8:00am – 12:00pm. ERCOT intends for MarkeTrak and its user interfaces to be available outside of this time frame, however this time will not be included in the service availability metric for MarkeTrak.

**Performance**

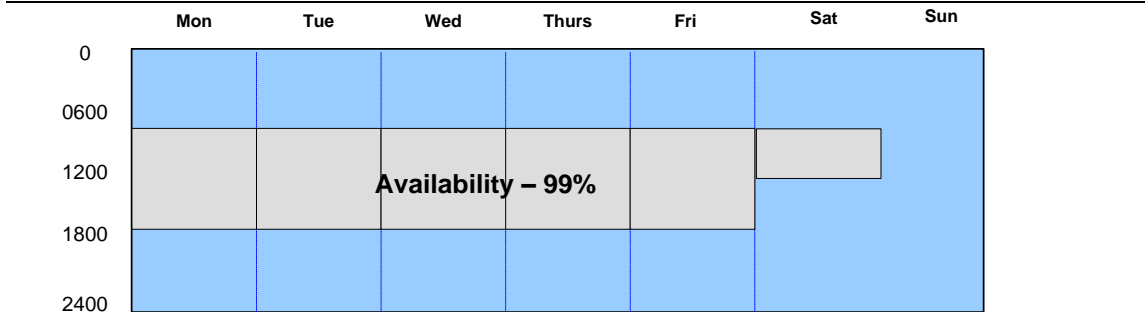
ERCOT will track response time for API Query List, Query Detail, Update and also GUI. This data will be monitored from the ERCOT network perimeter at 5 minute intervals by synthetic transactions. Benchmark performance levels (SLO) for API and GUI are determined by the MarkeTrak Task Force, and may be reviewed periodically.

Outages of any duration that occur within the operating window specified above will be counted against the MarkeTrak service availability metric. Market Notices will only be sent for outages lasting more than 30 minutes.

	Performance (%)	Response Time (seconds)	
CI ▲	Business Hours	Business Hours	
MarkeTrak SLA - 2011	98.483	-	
↳ MarkeTrak Business Service	98.483	-	
↳ ↳ API QueryDetail	99.078	-	
↳ ↳ ↳ API QueryDetail	99.078	0.445	SLO: 1.5 seconds
↳ ↳ ↳ API QueryList	99.487	-	
↳ ↳ ↳ ↳ API QueryList	99.487	0.578	SLO: 3.0 seconds
↳ ↳ ↳ ↳ API Update	95.538	-	
↳ ↳ ↳ ↳ ↳ API Update	95.538	5.920	SLO: 7.0 seconds
↳ ↳ ↳ ↳ ↳ Marketrak GUI	99.830	-	
↳ ↳ ↳ ↳ ↳ ↳ Marketrak GUI	99.830	7.795	SLO: 15 seconds

**Maintenance:**

Maintenance can be performed anytime outside of the availability timeframe (7:00am -7:00pm business days and Saturday 8:00am – 12:00pm). Market notices will be sent prior to performing any planned maintenance. Upon implementation of TXSET 4.0, the 4<sup>th</sup> weekend release window will be modified to comply with business day protocols, and the SLA will be updated to reflect these changes.



**Monitoring:**

Availability and performance for MarkeTrak is monitored through synthetic transactions which execute scripts against the IT applications at 5 minute intervals. Upon returning a valid response, and not exceeding the timeout threshold, the IT application will be considered available. If this method cannot be used due to issues with the monitor, the availability may be calculated by system or hardware uptime, and outage detection through operational monitoring tools.

### 2.2.3 Market Notification and Reporting

ERCOT will measure and report monthly MarkeTrak and user interface service availability and track annual service availability for each calendar year. These results will be reported through the ERCOT governance process and includes the Texas Data Transport Working Group, the Retail Market Subcommittee, the Technical Advisory Committee, and the ERCOT Board of Directors.

ERCOT will maintain a log containing details of incidents that will be updated monthly and made available on the ERCOT Service Level Agreement website (<http://www.ercot.com/services/sla/>). This log will also include service availability performance metrics and detailed information regarding each incident related to MarkeTrak performance.

## 3. Retail Market IT Services Reporting

Service availability and impacting events related to the Retail Market IT services described in this document will be reported monthly to the Texas Data Transport Working Group, the Technical Advisory Committee and the Retail Market Subcommittee. The availability metrics and detailed market notice log will be updated monthly and posted to the Retail Market Subcommittee website on [www.ercot.com](http://www.ercot.com).

Elements included in the Detailed report are:

- Incident date
- Date of initial Market Notice (if applicable)
- Market Notice ID tag (if applicable)
- Incident start and end times and duration
- Application(s) affected
- Issue description
- Identification method – the way that ERCOT learned of the incident (i.e....monitoring, notification from market participant, etc...)
- Impact to the affected service
- Market impact – total out of protocol for SWI, MVI, MESI, PMVI, and MVO
- Resolution status
- Root cause when identified
- Date of any identified fix to be implemented
- Additional comments or notes

The report also summarizes the market notice data by type in monthly and annual breakdowns.

Market Participants may provide data and information regarding the impacts of an incident to ERCOT to be included in the monthly report detailed above. Information provided to ERCOT for the purposes of inclusion in the incident log will be treated as confidential and may be submitted to:

[ERCOTRetailIncidentLog@ercot.com](mailto:ERCOTRetailIncidentLog@ercot.com).

## 4. *Browser Compatibility*

ERCOT maintains its Retail IT Systems to support most commonly-used web browsers.

Upon a request from the Texas Data Transport Working Group (TDTWG), ERCOT will either certify or have a plan to certify ERCOT systems to support TDTWG-recommended browsers within six (6) months of the browser's release date, as requested by the working group. ERCOT's Divisional Project Office will work with IT Customer Service to determine level of effort, and if the request requires a separate project. A compatibility matrix and configuration guide for the client browsers for each application will be created and posted to Ercot.com. Additionally, ERCOT will work with the TDTWG to identify browser versions for which supportability can be discontinued. ERCOT will post configuration guides for browser versions to

<http://www.ercot.com/services/mdt/userguides/>

- ERCOT is planning to have all market facing applications compatible with Microsoft browser IE8 (Internet Explorer v8) by April 1, 2012

- Any Market Participant that has a problem with IE8 after April 1, 2012, can report the issue to Client Services or to ERCOT’s Helpdesk
- ERCOT will continue to support Microsoft IE7 until mid-2014. No action is required from Market Participants at this time
- Other browsers are mostly, if not fully, compatible though not supported by ERCOT (Firefox, Safari, Chrome, etc)

## 5. Service Availability Renegotiations and Change Control Process

Renegotiations of ERCOT retail market IT services can be initiated by either Market Participants or ERCOT management by making a request to the Retail Market Subcommittee.

Version control in the form of document version numbering will be maintained in this document as a means of providing a change control process.

## 6. Annual Review Process

ERCOT is committed to providing IT services to the competitive electric market in Texas. ERCOT intends that the IT services described in this document align with market participant requirements to the extent that is operationally feasible. To maintain alignment between the requirements of the market participants and the retail market IT services delivered by ERCOT, the service availability targets defined in this document will be reviewed at least annually.

## 7. Approvals

Area of Responsibility	Name	Reviewed / Approved	Date
Manager, IT Service Delivery	Trey Felton		
Manager, ERCOT Retail Customer Choice	Karen Farley		
Business Sponsor – RMS Chair	Kyle Patrick		

## Appendix A: Definitions

This section contains definitions of the systems referred to in this document and of the commonly used acronyms.

- **Availability:** The ability of a component or IT service to perform its required function over a stated period of time
- **Degradation:** An event that causes the availability of ERCOT IT systems to be impacted while still allowing for processing of or access to these systems
- **Enterprise Application Integration (EAI):** ERCOT's enterprise application integration software
- **Electronic Data Interchange (EDI):** the transfer of data electronically
- **Gross minutes** - total minutes in a month
- **Incident:** Any event that causes the agreed levels of service of ERCOT IT systems to be impacted
- **Integration:** The creation of links between previously separate computer systems, applications, services or processes
- **NAESB:** The North American Energy Standards Board (NAESB) serves as an industry forum for the development and promotion of standards which will lead to a seamless marketplace for wholesale and retail natural gas and electricity. The Texas electric market has implemented NAESB EDM v1.6 as the required data transport mechanism.
- **Net minutes:** gross minutes minus planned outage minutes
- **Outage :** a temporary period where ERCOT IT systems are unavailable
  - **Planned Outage:** a planned change in ERCOT IT systems that leads to them being unavailable
  - **Unplanned Outage:** any incident resulting in the unexpected failure of a computer or network hardware system or software application causing ERCOT IT systems to be unavailable. In determining if an incident is classified as an unplanned outage or a degradation, ERCOT may use the following benchmark:
    - **Retail Processing:** an unplanned outage would be declared if an incident leads to over 15% of transactions being out of protocol during the period the incident occurred
- **Planned outage minutes:** minutes used by ERCOT during the maintenance and release windows
- **Proxy Server:** a server which services the requests of its clients by forwarding requests to other servers
- **Registration Application:** ERCOT's customer relationship management system
- **Retail Transactions:**
  - 814 – Enrollment transaction used for registration in the retail market

- 
- 867 – Usage transaction used for reporting consumption or generation of electricity
  - 824 – Application advice transaction used for responding to errors on 867 usage transactions
  - 997 – Acknowledgement transaction
  - **Service availability percent:** the percent of time that retail transaction processing services were available, not including planned outage minutes
  - **Unplanned Outage minutes:** minutes retail transaction processing services were not available that are outside of the planned use of the maintenance and release windows