



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: 1/1/2013

Document Revisions

Date	Version	Description	Author(s)
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March 28 th , 2006	.91	Revised draft	Aaron Smallwood
June 1 st , 2006	1.0	Final Version	Aaron Smallwood
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May 1, 2007	2.0	2007 annual review revisions with ERCOT business and Market input	Aaron Smallwood
June 25 th , 2007	2.1	Revised following further Market input	Aaron Smallwood
June 18 th , 2008	2.2	Revised for 2008	Trey Felton
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Sept 25 th , 2008	2.3	Final revisions for TDTWG	Trey Felton
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Oct 15 th , 2008	3.0	Approved by RMS	Trey Felton
Feb 22 nd , 2009	3.1	Quarterly Update	Trey Felton
Apr 15 th , 2009	3.2	Approved by RMS	Kyle Patrick
Jun 5 th , 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 th , 2009	3.4	Updates: Dual-tiered SLA metric for Retail Processing. New graphs for outage windows.	Trey Felton
Oct 10 th , 2009	3.5	TDTWG Updates to graph colors, wording in 2.1.2, and chart sizes	TDTWG
Nov 2 nd , 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 th , 2009	3.7	TDTWG Updates: revised outage definition.	Trey Felton
Nov 13 th , 2009	3.8	Changed 20% to 15% in outage definition	Trey Felton
Dec 2 nd , 2009	3.9	Review by TDTWG; minor changes	TDTWG
Dec 9 th , 2009	4.0	Approved by RMS	RMS
Sep 28 th , 2010	4.1	Updates for 2011 – new maintenance outage schedule, performance and availability monitoring changes, scope not changed.	Trey Felton
Aug 1 st , 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 rd , 2011	5.1	Updated 2.1.2, 2.2.2, and 4.0	Trey Felton
Oct 3 rd , 2012	6.0	Revised Sec 2.1.1, updated outage/release windows and added 2013 calendar, removed references to TXSET4.0 implementation and Windows 7 Browser support	Trey Felton
Nov 7 th , 2012	6.1	2013 Draft SLA to TDTWG	Trey Felton

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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)
- Registration Application
- ERCOT maintained infrastructure supporting retail transaction processing

Excluded from the scope of the retail transaction processing service are systems that communicate with, but are not a primary component of, retail market transaction processing services. These services are covered by the Market Data Transparency SLA:

- Enterprise Information Service (EIS)
- Settlements & Billing Services
- External Web Services
- Market Information System (MIS)

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*

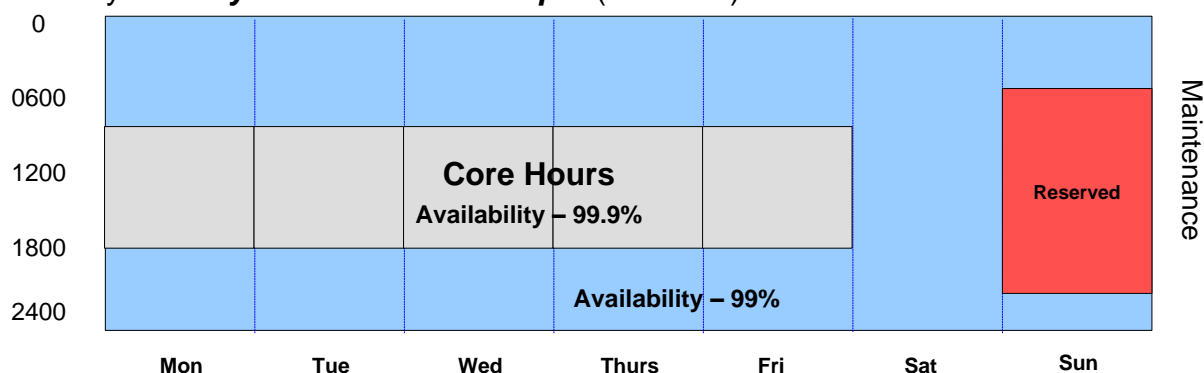
- Electronic Data Interchange (EDI)
- Registration Application
- ERCOT maintained infrastructure supporting retail transaction processing

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

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

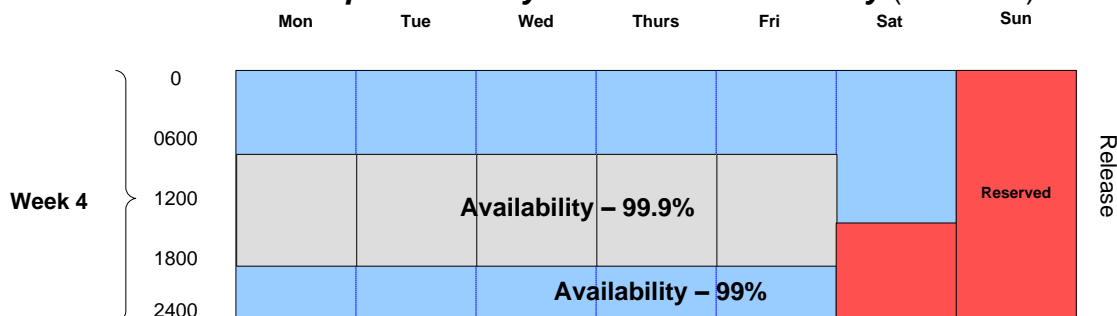
ERCOT reserves the following times as maintenance outage windows:

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



Release Window:

- 4th weekend*— **5:00pm Saturday until 12:00am Monday** (31 hours)



***Exceptions:**

Not all Releases will fall on the 4th weekend (see schedule at right). ERCOT will update and communicate release and outage expectations quarterly via the stakeholder process. With the approval of this SLA, exceptions requiring an early start time will be granted for 2pm Saturday provided a notice is communicated to the Market no later than 10 days prior to the outage. As part of on-cycle releases and system changes, ERCOT may schedule changes during business hours that have limited impact on production systems. These changes will be communicated via Market Notice.

Month	Release Date	
Feb	23/24	Release 1
Apr	27/28	Release 2
June	8/9	Release 3
Jul	27/28	Release 4
Sep	28/29	Release 5
Dec	7/8	Release 6

Note: Should you have any specific questions, please contact your ERCOT Account Manager or the ERCOT HelpDesk for clarifications at (512) 248-6800 or hdesk@ercot.com. A ticket will be generated by ERCOT and the issue will be tracked to completion.

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 = **39,240**
- 338,400 – 39,240 = **299,160** net availability minutes per year

99% availability = 2,992 unplanned outage minutes per year, or 49.86 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.

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

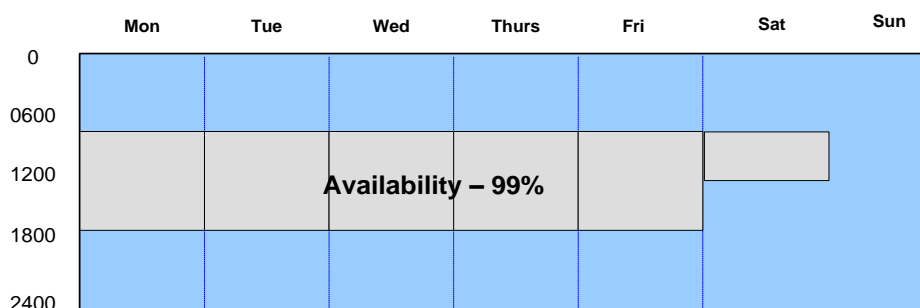
ERCOT will track response time for API Query List, Query Detail, Update and also GUI. This data will be monitored from the ERCOT network perimeter at 5 minute intervals by synthetic transactions. Benchmark performance levels (SLO) for API and GUI are determined by the MarkeTrak Task Force, and may be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



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.

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.

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/>

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			
Manager, ERCOT Retail Operations			
Business Sponsor – RMS Chair			

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
- **Core Hours:** 7am to 7pm Monday through Friday excluding ERCOT holidays
- **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
- **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 (excluding eService application for Wholesale Settlement disputes)
- **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