

**Market Requirements:**

**PRXXX-0X SCR786 Retail Market Sandbox Environment**

**Version 0.1**

Document Revisions

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# Project Overview

## Background

The Certification (CERT) environment was originally created and is currently used for Market Flight testing to certify Market Participants in ERCOT retail market.

TDTMS’s investigation into the current environment capabilities revealed that it does not meet retail market testing needs. Some of the challenges found during the course of our investigation are:

* Insufficient for market volume testing and Application Program Interface (API) testing.
* Currently the test scenario uses a Simulated (SIM) date. This makes it difficult to perform ad hoc testing in CERT.
* Restricted availability for additional ad hoc testing outside CERT environment schedules.
* Data is purged after every testing cycle resulting in resending of same data.
* Manual intervention required for validating transaction data set.

## Stakeholders

Competitive Retailers (CRs) and Transmission and Distribution Service Providers (TDSPs) will both be able to use the expanded environment in order to test their internal system changes prior to migrating them to their Production environment. This will decrease the risk of finding defects once in Production.

## Business Drivers

SCR786 was submitted by Texas Data Transport Working Group to create a testing environment to provide flexibility and availability for ad-hoc testing requests by Market Participants and to reduce the overall risk to the retail market by allowing Market Participants to test internal projects with ERCOT and other Market Participants before going live in production.

## Anticipated Business and/or IT Benefits

The main benefit from this project is the reduction of risk to the market of defects found in Production. In addition, the CERT environments increased stability will decrease duration and hours needed to test in the environment.

## Scope

|  |
| --- |
| **In Scope** |
| *#* | *Item* | *Comments* |
| 1 | Improve overall testing capabilities for all retail business processes by increasing capacity of CERT environment |  |
| 2 | Improve transaction processing time through the reduction/elimination of manual intervention |  |
| 3 | Elimination of blackout structure |  |
| 4 | Elimination of SIM date |  |
| 5 | Reduced purging of data to only on agreed upon schedule |  |
| 6 | Availability for sandbox testing during normal business hours – Monday through Friday, 9:00 am to 4:00 pm |  |
| 7 | Ability to test the following functionality in sandbox environment – * + - Transaction and business processing of edi files
		- Transaction processing of non-edi files, such as CBCI and Demand Response for file level validation
		- MarkeTrak GUI and API testing, including performance testing of API
		- Browser Compatibility
 |  |

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| **Scope Clarifications – Determined Out of Scope** |
| *#* | *Item* | *Comments* |
| 1 | Brand new environment separate from the CERT environment |  |
| 2 | ERCOT simulating or mimicking TDSP/CR transactions |  |
| 3 | Ability to handle Prod like volumes from all MPs at the same time |  |
| 4 | Turnaround times that match protocol specifications when large volumes are submitted |  |
| 5 | Market Participants mimicking other Market Participants |  |
| 6 | Business validations on non-edi files, such as CBCI and Demand Response |  |

# Requirements Overview

## Protocol Requirements (if applicable)

Not applicable

## Process Overview

Updated environment will allow Market Participants an environment to test with other MPs prior to going live. MPs will be able to complete sandbox testing while Flight testing is in progress.

# Functional Business Requirements

## Business Requirements

| **Req ID** | **Requirement Description** |
| --- | --- |
|  | Increase capacity of CERT environment so that up to 3 large Market Participants can load test at the same time. |
|  | Remove manual interaction with transactions at ERCOT to reduce processing time. |
|  | Eliminate blackout structure and complete code migrations on a prod like schedule, where possible. |
|  | Eliminate SIM date so that transactions with current dates can be processed. |

## Data

| **Req ID** | **Requirement Description** |
| --- | --- |
|  | ESIIDs that are being used in Flight Certification Testing (provided to ERCOT in the test bed) cannot be used in Sandbox Testing.  |
|  | On a yearly basis, ERCOT will refresh the CERT environment with a subset of the ESIIDs from Production. |
|  | Any purging of data from the environment will be communicated to the Market in advance. |
|  | When doing high volume testing, Market Participants will aggregate their transactions like they do in production, submitting multiple transactions per file. |

## Environmental Logistics

| **Req ID** | **Requirement Description** |
| --- | --- |
|  | Environment will be available except during code migrations, but IT Support for the environment will only be available from 9 am to 4 pm. |
|  | Issues with the environment should be reported through the Helpdesk. Make sure to specify CERT environment when reporting issues. |
|  | Business support for the environment will be available from 9 am to 4 pm. |
|  | The following types of business support can be requested through the Production MarkeTrak application using the “Other” subtype with a comment of “Request for Market Testing Assistance”. ERCOT requests at least 5 business days’ notice for these requests. |
|  | Providing lists of ESIIDs with specific characteristics. |
|  | Setting up scenarios for transactional or MarkeTrak testing.  |
|  | Providing support for MarkeTrak testing. |
|  | If a Market Participant is planning to do load testing in the sandbox environment, they should inform ERCOT 5 business days ahead of time or as soon as possible.If ERCOT receives more than 3 requests for load testing during the same timeframe, the first 3 will be accepted and additional Market Participants will need to wait. |
|  | It is not required that a Market Participant inform ERCOT that they are planning to do small volume testing, but if they do, ERCOT personnel can monitor the environment to make sure it is running as expected. |

## 3.4 User Documentation and Help Requirements

| **Req ID** | **Requirement Description** |
| --- | --- |
|  | No user documentation will be created specifically for sandbox testing. |
|  | Existing Flight documentation will be updated as necessary. |

# Appendices

## Supporting Information

*References or detail*

## Glossary

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| **Term** | **Definition** |
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