Texas Standard Electronic Transactions

INTRODUCTION TO TX SET

To avoid raising concerns about antitrust liability, participants in ERCOT activities should refrain from proposing any action or measure that would exceed ERCOT's authority under federal or state law.

For additional information, stakeholders should consult the *Statement of Position on Antitrust Issues for Members of ERCOT Committees, Subcommittees, and Working Groups*, which is posted on the ERCOT website.

Protocol Disclaimer

This presentation provides a general overview of Retail Transaction Processing and is not intended to be a substitute for the ERCOT Protocols, as amended from time to time. If any conflict exists between this presentation and the ERCOT Protocols, the ERCOT Protocols shall control in all respects.

For more information, please visit:

Protocols - Nodal (ercot.com)

Housekeeping

Restrooms

Refreshments

Attendance sheet

Questions



Please silence smart phones & other electronics

Course Objectives

What is TX SET?

Where do I find Tools/References?

How does TX SET work?

How is TX SET managed?

Agenda

- 1. Introduction
- 2. Governing Documents
- 3. TXSET Working Group
- 4. Transaction Overview
- 5. Transaction Process Flow
- 6. MIS Portal
- 7. TXSET Implementation Guides
- 8. Appendix

Introduction

What is TX SET?

- Texas Standard Electronic Transactions
- Facilitates retail business processes
- Maintained by TX SET working group
- Set of American National Standards Institute (ANSI) EDI transaction guidelines

Benefits of TX SET

- Standardization of automated processes
- Improves data quality and efficiency
- Greater transparency
- Improved security
- Allows reporting flexibility
- Increased cost savings

When are TX SET used?

To execute Retail market processes

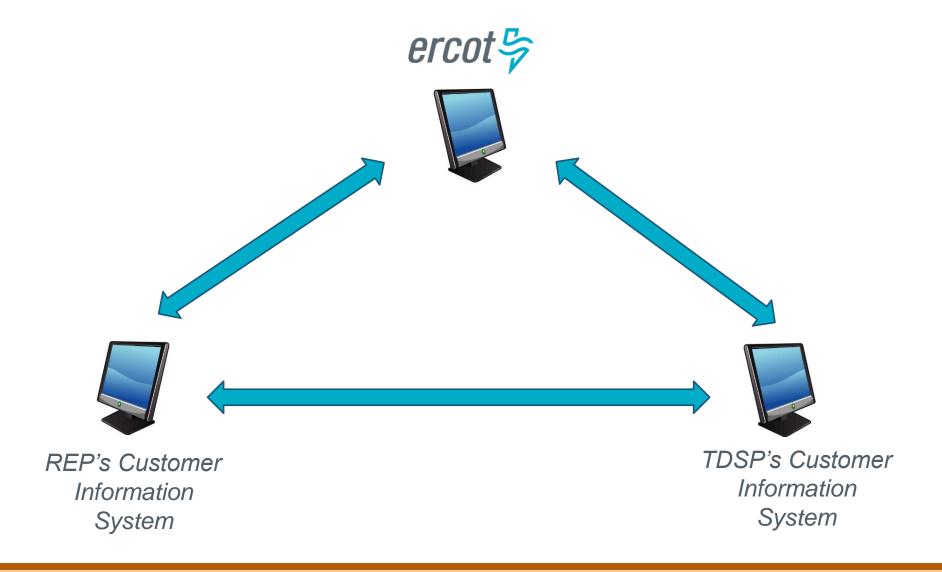
- Move In
- Move Out
- Switch
- Disconnects
- Reconnects
- Updates to premise information
- Updates to customer information

NAESB EDM v1.6

North American Energy Standards Board Electronic Delivery Mechanism

- Version 1.6 is a National Standard
- Secured computer to computer data protocol
- Modified to fit ERCOT Market

Transaction Flows



Acronyms

TX SET – Texas Standard Electronic Transactions

PURA – Public Utilities Regulatory Act

PUCT - Public Utility Commission of Texas

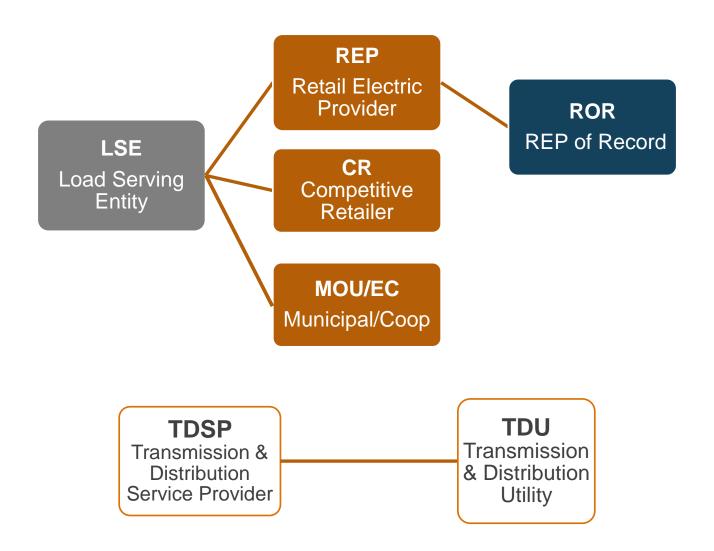
ERCOT – Electric Reliability Council of Texas

NAESB – North American Energy Standards Board

MP – Market Participant

ESI ID – Electric Service Identifier

Participants



Governing Documents

Hierarchy of Rules



Public Utility Regulatory Act (PURA)





PUCT Substantive Rules



ercot = ERCOT Protocols

Rules/Policies/Standards that govern the ERCOT market

- Created through collaborative efforts
- Define procedures used by ERCOT and Market Participants (MPs)
- MPs, ERCOT and Independent Market Monitor (IMM) bound by Protocols

ERCOT Protocols



About ERCOT

Services

Committees and Groups

Market Rules

Market Information

Grid Information

Market Participants

Home > Market Rules > Protocols - Nodal

Protocols - Nodal

The Protocols outline the procedures and processes used by ERCOT and Market Participants for the orderly functioning of the ERCOT system and nodal market. The current set of Protocols as well as requests for changes and clarification may be found in this section.

In This Section

Current Protocols - Nodal

The Nodal Protocols become effective upon Texas Nodal market implementation; the current set of Nodal Protocols are in this section.

NPRR Submission Process

Find the directions and forms to submit a Nodal Protocol revision request.

Protocol Interpretation Request Submission Process

Read about the process for submitting a PIR, and find the form.

Protocol Library - Nodal

Find the monthly versions of the complete Nodal Protocol set, including summaries of revisions.

Related Content

On this site

Protocol Revision Requests

Protocol Revision Subcommittee

Relevant ERCOT Protocol Sections

Section 2 – Definitions and Acronyms

Section 9 – Settlements and Billing

Section 10 – Metering

Section 12 – Market Information System

Section 15 – Customer Registration

Section 18 – Load Profiling

Section 19 – Texas Standard Electronic Transaction

Section 21 – Revision Request Process

Section 24 – Retail Point to Point Communications

Section 15 - Customer Registration

- ERCOT is the Registration Agent for the Retail Electric Market
- ERCOT maintains the Registration Database of all ESI IDs
- All Competitive Retailers operating in ERCOT register their customers via TX SET

20

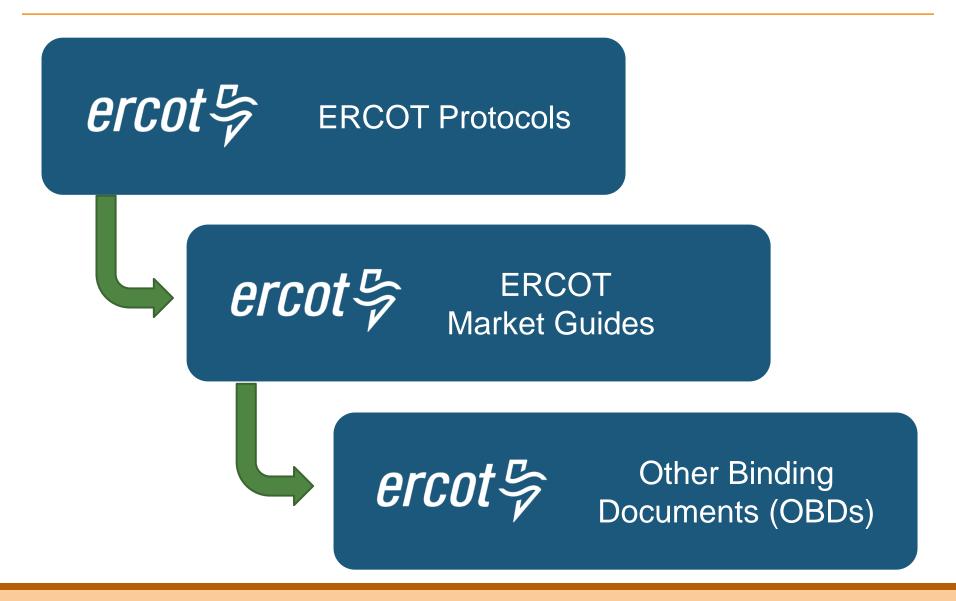
Section 19 – Texas Standard Electronic Transaction

- Transactions between Competitive Retailers (CRs), ERCOT, and Transmission and Distribution Service Providers (TDSPs)
- Validation process
- TX SET change control process
- Retail market testing process

Section 24 – Retail Point to Point Communications

- Transactions that do <u>not</u> flow through ERCOT
- Transactions that flow between CRs and TDSPs
 - Disconnect/Reconnect
 - Suspension of delivery
 - Remittance information
 - TDSP Invoice

ERCOT Market Guides



ERCOT Market Guides



About ERCOT

Services

Committees and Groups

Market Rules

Market Information

Grid Information

Market Participants

Related Content

On this site

Hiser Guides

ERCOT Protocols

Home > Market Rules > Market Guides

Market Guides

Market Guides are based upon ERCOT Protocols and serve as detailed reference documents for Market Participants. The guides act as a mechanism for establishing and adjusting market and operating processes.

In This Section

Commercial Operations Market Guide

Find the reference guide for commercial operations; and locate or submit requests for revisions

Data Transport Guides

Read about ERCOT's standards for secure cata transport, including the North American Energy Standards Board Electronic Delivery Mechanism and ERCOT's alternative to FTP.

Inactive Market Guides

Find inactive Market Guides and related documents.

Load Profiling Guide

Find the responsibilities and processes associated with load profiling; and find or submit requests for changes.

Nodal Operating Guide

Find the nodal guide that describes how ERCOT will interact with qualified scheduling entities, transmission operators, resource entities and load serving entities in the nodal market; and find or submit request for revisions.

Operating Procedures

Locate ERCOT processes and procedures for reliable daily grid operation and emergency actions.

Planning Guide

View the guides that provide ERCOT stakeholders and market participants with information and documentation concerning the ERCOT transmission planning process.

Resource Registration Glossary

The Resource Registration Glossary provides the name, description and supporting information for any data field that may be required from a Resource as part of the Resource Registration process.

Retail Market Guide

Get the reference guide for the retail markets rules and structure; and find or submit requests for changes.

Settlement Metering Operating Guide

Locate the standards and procedures for ERCOT-polled settlement (EPS) metering; and find or submit requests for changes.

Texas Standard Electronic Transaction Guides

Find the implementation guides for the Texas standard Electronic Transaction procedures; proposed and adopted changes; and the business process lifecycle for retail transactions.

Verifiable Cost Manual

Locate the manual which describes the process for Resources to submit verifiable costs to ERCOT. View related forms for revision requests as well.

ERCOT Retail Market Guide

Section 1 – Purpose

Section 2 – Definitions and Acronyms

Section 3 – Retail Market Guide Revision Process

Section 4 – Public Utility Commission of Texas

Section 5 – Electric Reliability Council of Texas

Section 6 – Retail Market Subcommittee Working Group

Section 7 – Market Processes

Section 8 – Municipally Owned Utilities and Electric Cooperatives

Section 9 – Appendices

Section 10 – Competitive Metering

Section 11 – Solution to Stacking

Section 7 – Market Processes

- Section 7.3 *Inadvertent Gain Process*
- Section 7.4 Safety Nets
- Section 7.5 Standard Historical Usage Requests
- Section 7.6 Disconnect and Reconnect for Non-Payment Process
- Section 7.7 Transaction Timing Matrix
- Section 7.16 Business Processes and Communications Related to Meter Tampering
- Section 7.15 Advanced Meter Interval Data File Format and Submission
- Section 7.17 Business Processes and Communications for Switch

 Holds Related to Deferred Payment

Section 9 Appendix D1 – Transaction Timing Matrix

Transaction	Business Process	From	То	Timing/Business Rules	Protocol Reference Section
867_03, Monthly or Final Usage	Final	TDSP	ERCOT	Within three Business days of effectuating meter read	15.1.1.7, Completion of Switch Request and Effective switch Date
867_03, Monthly or final Usage	Monthly	TDSP	ERCOT	No later than three Retail Business Days after the scheduled meter read cycle or scheduled meter cycle by day of the month for a point of delivery	15.3, Monthly Meter Reads
867_04, Initial Meter Read	Initial	TDSP	ERCOT	Within three Retail Business Days of the effectuating meter read	15.1.1.7, Completion of Switch Request and Effective Switch Date

Appendices

Section 9 Appendix D3 – TDSP's Discretionary Service Timelines Matrix

Section 9 Appendix G – ERCOT Specified File Format for Submission of Interval Data for Advanced Metering Systems

Section 11- Solution to Stacking

Section 11.1 - Overview of Solution to Stacking

Section 11.2 - ERCOT Operating Rules

Section 11.2.2 - Cancellation Rules

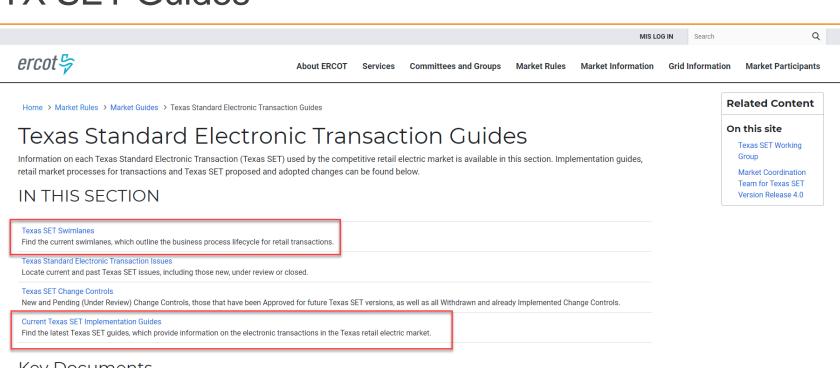
Section 11.2.3 - Concurrent Processing Rules

Section 11.2.4 - Pending Transaction Rules

Section 11.3 - Transmission and/or Distribution Service Provider Operating Rules

Section 11.4 - Retail Electric Provider Operating Rules

TX SET Guides



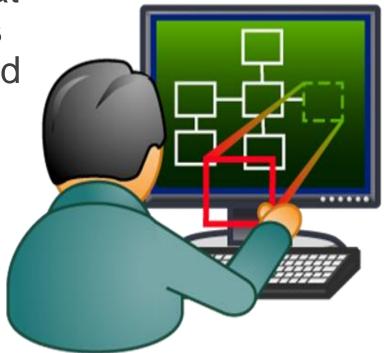
Key Documents

Tis contains a log of all change controls submitted TXSET Change Control Dispute Form Texas SET Change Control Form Feb 11, 2011 - doc - 36.5 KB Form to be completed only by Texas SET Working Group Texas SET Issue Form Sep 30, 2010 - doc - 43.5 KB Form to submit a request regarding an issue to ERCOT Transactions Names Inventory Feb 10, 2022 - xls - 63 KB Transactions Names Inventory V4.0 A	Change Control Log	Jan 18, 2023 - xlsx - 178.4 KB
Texas SET Change Control Form Feb 11, 2011 - doc - 36.5 KB Form to be completed only by Texas SET Working Group Texas SET Issue Form Form to submit a request regarding an issue to ERCOT Transactions Names Inventory Feb 10, 2022 - xls - 63 KB	This contains a log of all change controls submitted	
Form to be completed only by Texas SET Working Group Texas SET Issue Form Sep 30, 2010 - doc - 43.5 KB Form to submit a request regarding an issue to ERCOT Transactions Names Inventory Feb 10, 2022 - xls - 63 KB	TXSET Change Control Dispute Form	Jul 23, 2015 - doc - 38.5 KB
Texas SET Issue Form Form to submit a request regarding an issue to ERCOT Transactions Names Inventory Sep 30, 2010 - doc - 43.5 KB Feb 10, 2022 - xls - 63 KB	Texas SET Change Control Form	Feb 11, 2011 - doc - 36.5 KB
Form to submit a request regarding an issue to ERCOT Transactions Names Inventory Feb 10, 2022 - xls - 63 KB	Form to be completed only by Texas SET Working Group	
Transactions Names Inventory Feb 10, 2022 - xls - 63 KB	Texas SET Issue Form	Sep 30, 2010 - doc - 43.5 KB
	Form to submit a request regarding an issue to ERCOT	
Transactions Names Inventory V4.0A	Transactions Names Inventory	Feb 10, 2022 - xls - 63 KB
Trailed Milled Inventory V4.04	Transactions Names Inventory V4.0A	

Texas SET Swimlanes

Texas Standard Electronic Transaction (SET) swimlanes are reference documents that outline the business process lifecycle for transactions used in the competitive retail electric market in Texas.

https://www.ercot.com/mktrules/guides/txset/sw



TX SET Swimlanes



Texas SET Swimlanes

Texas Standard Electronic Transaction (SET) swimlanes are reference documents that outline the business process lifecycle for transactions used in the competitive retail electric market in Texas.

Billing Scenarios Version November 2024	Dec 9, 2024 - zip - 70.2 KB
TX SET flow documentation for consolidated billing, remittance and dual billing	
Continuous Service Agreement Scenarios November 2024	Dec 9, 2024 - zip - 367.6 KB
TX SET flow documentation for beginning and ending continuous service agreements (CSAs)	
Customer Move In Scenarios November 2024	Dec 9, 2024 - zip - 118 KB
TX SET flow documentation for handling Move In changes and problems	
Customer Move Out Scenarios November 2024	Dec 9, 2024 - zip - 112.5 KB
TX SET flow documentation for handling Move Out changes and problems	
Customer Switch Scenarios November 2024	May 17, 2016 - pdf - 15.3 KB
TX SET flow documentation for handling customer switch request	
Disconnect Reconnect Non Pay Scenarios November 2024	Dec 9, 2024 - zip - 83.3 KB
TX SET flow documentation for Disconnect and Reconnect for NonPay	
Inadvertent Gain, Inadvertent Loss, Customer Recission Scenarios	Dec 9, 2024 - zip - 337.7 KB
TX SET flow documentation for Inadvertent Gain, Inadvertent Loss and Customer Recession.	
Mass Transition / Acquisition Scenarios November 2024	Dec 9, 2024 - zip - 42.3 KB
TX SET flow documentation for customer dropped by competitive retailer (CR), reverted to AREP, disconnect for non-pay services request, and mass transition from defaulting CR to Provider of Last Resort (POLR)	

Texas SET Implementation Guides (IG)

TX SET Implementation Guides provide technical details contained within the electronic transactions used in the competitive retail electric market in Texas.

Current Version 5.0 supports PUCT Substantive Rules and market process revisions

https://www.ercot.com/mktrules/guides/txset/version

New Functionality of TX SET v5.0:

Created a **new** (Inadvertent) and **CR** (Customer Rescission) Move-In Transactional Solution and **modified MarkeTrak Processes**.

"County" name added as part of the ESI ID Premise Address attributes. NWS for all TX Counties is source for this information.

Created 44 new "Metered Service Type (MSL)" descriptions

Added Continuous Service Agreement "(CSA) Start and End Dates" to minimize incorrect CSA CRs' financial liability

Created new "CHP" status code for "TDSP Construction Hold"

Replaced "A13 Other" with "(28) Specific Reject Reason" codes

MarkeTrak Enhancements included new Subtypes, Stronger Validations and added "Complete Unexecutable" Drop-down reasons

TX SET Working Group

TX SET Working Group

Texas Standard Electronic Transaction (TX SET) Working Group:

Reports to the Retail Market Subcommittee (RMS)

Analyzes the need for new or modifications to existing electronic transactions

Recommends changes to retail market processes

Works with the ERCOT Flight Administrator to ensure that testing processes and procedures are defined and administered

Maintains the Texas SET Implementation Guides and the Texas Market Test Plan Guide

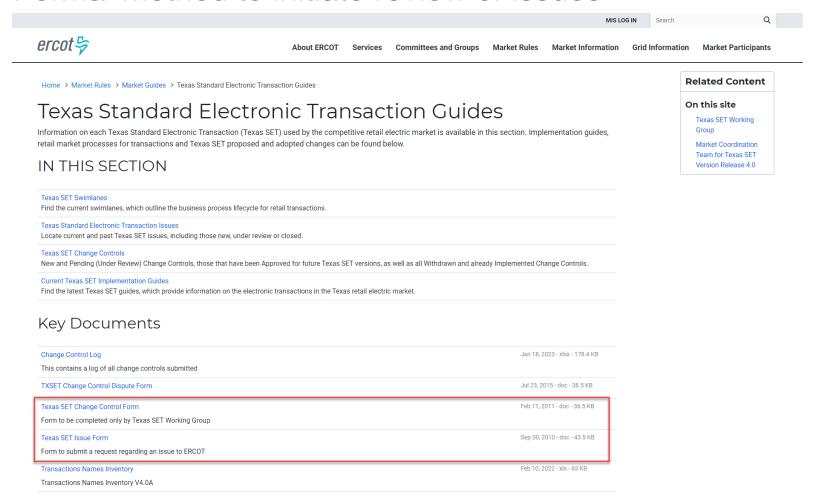
Collaborates with other Working Groups and Taskforces as directed by RMS

https://www.ercot.com/committees/rms/txset



TX SET Issue Submission Process

Formal method to initiate review of issues



Flight Testing:

- All retail Market Participants are required to test for ERCOT certification
- Three Market flights per year
- End to End test scripts (i.e. connectivity, penny test)

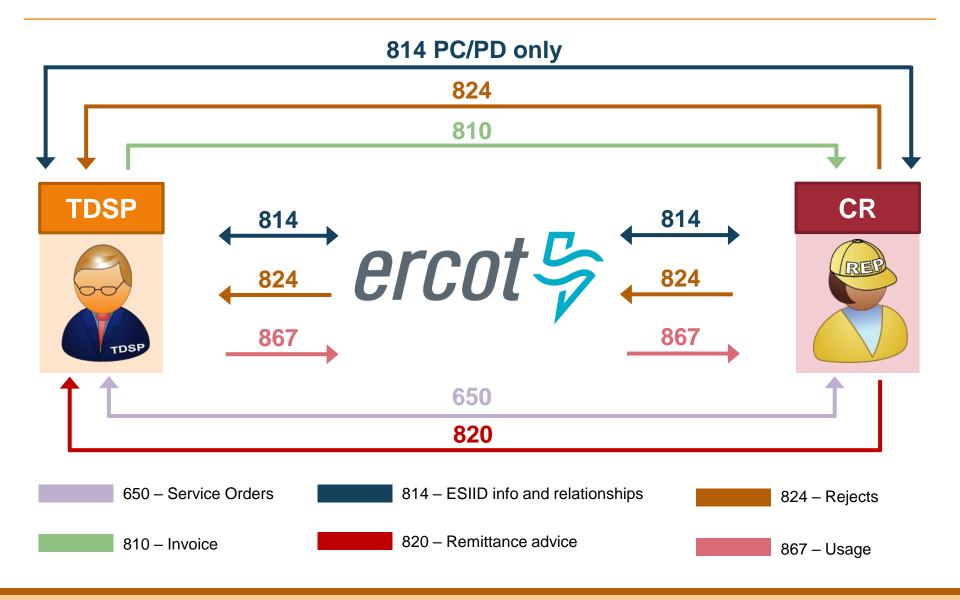
Governed by Texas Market Test Plan:

- Maintained by TX SET Working Group
- Outlines testing processes and requirements

All retail Market Participants must participate in and successfully complete testing as described in Protocol Section 19.8, Retail Market Testing, prior to commencing operations with ERCOT.

Transactions

Overview of transaction flow



Texas Standard Electronic Transactions (TX SET)

Many transactions involve ERCOT

Transaction Type	Use
814 –ESI ID info and Relationships (Many flavors)	Enrollments; Switch requests; Move-Ins; Move-Outs; ESI ID Maintenance
867 – Premise Usage	Initial Meter Read; Historical/Monthly Usage; Final Usage
824 – Reject Notification	Invoice or Usage Reject Notification

42

Texas Standard Electronic Transactions (TX SET)

Some transactions may not involve ERCOT

Transaction Type	Use
810 – Invoice	Bills for Charges between Market Participants
820 – Payments	Payments between Market Participants
650 –Service Order Requests	Disconnects for Non-Pay; Reconnects; Switch Hold and Switch Hold Removal; Planned Outage Notification
824 - Reject Notification	Invoice or Usage Reject Notification

These are called Point-to-Point transactions and flow between TDSPs and REPs

Transaction Names

TX SET Version 5.0 – Transaction Names Inventory

- Refer to handout
- Defines the transaction name for each transaction
- Describes how the transaction flows
- Found on the ERCOT website at <u>http://www.ercot.com/mktrules/guides</u>
 /txset

TEXAS SET VERSION 5.0 814 - Request, Response, Maintenance for Enrollments, Drops, Switches, Maintenance & Request Consumption		
Thx	Definition	Flow
814_PC	Maintain Customer Information Request	CR=>TDSP MOU/EC TDSP=>CR
814_PD	Maintain Customer Information Response	TDSP=>CR CR=>MOU/EC TDSP
814_01	Switch Request	CR=>ERCOT
814_02	Switch Reject Response	ERCOT=>CR
814_03	Enrollment Notification Request	ERCOT⇒TDSP
814_04	Enrollment Notification Response	TDSP=>ERCOT
814_05	CR Enrollment Notification Response	ERCOT=>CR
814_06	Loss Notification	ERCOT=>CR
814_08	Cancel Request	CR=>ERCOT ERCOT=>CR ERCOT=>TDSP
814_09	Cancel Response	TDSP=>ERCOT ERCOT=>CR
814_11	Drop Response	ERCOT⇒CR
814_12	Date Change Request	CR=>ERCOT ERCOT=>CR ERCOT=>TDSP
814_13	Date Change Response	TDSP=>ERCOT ERCOT=>CR
814_14	Drop Enrollment Request	ERCOT⇒POLR
814_16	Move In Request	CR=>ERCOT
814_17	Move In Reject Response	ERCOT=>CR
814_18	Establish/Delete CSA Request	CR=>ERCOT ERCOT=>MOU/EC TDSP ERCOT=>CR
814_19	Establish/Delete CSA Response	ERCOT=>CR MOU/EC TDSP=>ERCOT
814_20	ESI ID Maintenance Request	TDSP=>ERCOT ERCOT=>CR
814_21	ESI ID Maintenance Response	ERCOT=>TDSP
814_22 814_24	CSA CR Move In Request Move Out Request	CR=>ERCOT ERCOT=>TDSP
814_25	Move Out Response	TDSP=>ERCOT ERCOT=>CR
814_26	Historical Usage Request	CR⇒ERCOT ERCOT⇒TDSP
814_27	Historical Usage Response	TDSP=>ERCOT ERCOT=>CR
814_28	Complete Unexecutable or Permit Required	TDSP=>ERCOT ERCOT=>CR
814 29	Complete Unexecutable or Permit Required Response	ERCOT=>TDSP

650* Maintenance Service Order - Work Orders, Meter Config. Details, Outage Notification		
Tix	Definition	Flow
650_01	Service Order Request	CR⇒TDSP
650_02	Service Order Response	TDSP=>CR
650_04	Planned or Unplanned Outage Notification	TDSP=>CR
	810 - Statement, Settlement, Wire Charge I	nvolces
810_02	TDSP Invoice	TDSP=>CR
810_03	MOU/EC TDSP Invoice	CR=>MOU/EC TDSP
	820 - Payment and Advice through Bar	k
820_02	CR Remittance Advice	CR->TDSP
820_03	MOU/EC TDSP Remittance Advice	MOU/EC TDSP=>CR
	824 - Reject Response to 810 or 867 Data	
824	Invoice or Usage Reject Notification	CR=>TDSP CR=>ERCOT ERCOT=>TDSP
867-Interval	l, Non Interval, Reads & Consumption Data Hi Activity	storical and Monthly
867_02	Historical Usage	TDSP=>ERCOT ERCOT=>CR
867_03	Monthly or Final Usage	TDSP=>ERCOT ERCOT=>CR
867_04	Initial Meter Read	TDSP=>ERCOT ERCOT=>CR
	997 - Functional Acknowledgement	
997	Functional Acknowledgement	All
	TSeries	
то	Option 1 Outages: Outage Status Request	CR=>TDSP
T1	Option 1 Outages: Trouble Reporting Request	CR=>TDSP
T2	Option 1 Outages: Trouble Report Acknowledgement	TDSP=>CR
Т3	Option 1 Outages: Status Response	TDSP=>CR
T4	Option 1 Outages: Trouble Completion Report	TDSP=>CR

Transaction Names – 650_01 Service Orders

The following Purpose Codes can only be used when requesting the associated Transaction Type Code as noted below:

Purpose Codes Beginning With:

```
DC use only when BGN07 = 72 Disconnect
     use only when BGN07 = XZ Facilities Investigation
FI
     use only when BGN07 = AN Lighting
GL
SL
     use only when BGN07 = AN Lighting
RC use only when BGN07 = 79
                              Reconnect
ME use only when BGN07 = KH Meter Exchange
MT use only when BGN07 = 38 Meter Test
MM use only when BGN07 = 13 Meter Maintenance
     use only when BGN07 = RD Read (Out of Cycle)
RD
    use only when BGN07 = SH Switch Hold Indicator
SH
     use only when BGN07 = IN Technical Environmental
TE
```

Required on all 650_01 Service Request, if CR does not provide a Purpose Code TDSP will reject the transaction

From 650_01 Implementation guide.

There are 80 REF segments to identify the purpose of the 650 Service Order based on the above 11 codes

Option 1 vs Option 3 REP

REPs will designate Option 1, 2, or 3 on their Delivery Service Agreement with each TDSP on the following:

OPTION	REPORTING OF OUTAGES OR SERVICE REQUESTS
1	REP directs customers to contact REP, REP contacts TDSP via transaction
2	REP directs customers to contact REP, REP forwards calls to TDSP
3	REP directs customers to contact TDSP, REP provides TDSP phone number to customers

Move-In vs Switch - Differences

	Move In - 814_16	Switch – 814_01
Definition	Customer requesting service connected in their name at either a new or an existing premise.	The process by which the current Customer makes a request to change their REP of Record for their ESI ID(s).
Timing & Costs	Move In fees and potential delays could be encountered	No fees on Standard Switch Self-selected Switches fees may apply.
Rescission	Not applicable	Customer has the right to rescind their decision within 3 Federal business days
Occupant Permit	Required for some municipalities/cities	Not required
Critical Care and Chronic Condition	Designation will be terminated due to New Customer MVI Critical Care and Chronic Condition status' are associated to the Customer and not the Premise	No change to status
Billing Demand Reset	Demand Ratchet resets	No impact to Billing Demand
4CP (Coincident Peak)	4CP demand resets	No change to 4CP demand
Non-standard Metering Premise	Meter is replaced with Standard meter and additional charge(s) to Customer if requested to re-install non-standard meter	No change
Smart Meter Texas (SMT) and TDSP Outage Alerts	Customer's Enrollment associated to Service Address and ESI ID is disabled. Customer will be required to reapply.	No change to SMT Enrollment or TDSP outage alert status

Transactions Initiating Business Process Instance

Initiating Business Process Instance (BPI)

- Move In 814_16
- Switch 814_01
- Move Out 814_24

The business processes listed above will start or end a REP's relationship with their customer.

Transactions Initiating Business Process Instance

Business process instances may be closed as Completed or Cancelled.

Cancelled transactions may be a result of:

- Cancel Request 814_08
- Complete Unexecutable 814_28 CU

814_28 Complete Unexecutable or Permit Required

Permit Required (PR)

- TDSP notifies CR via ERCOT
- Permit is required in order to complete enrollment
- TDSP typically will <u>not</u> send an 814_04 scheduling response until permit is received
- ERCOT holds enrollment for up to 20 Retail Business Days

Complete Unexecutable (CU)

TDSP unexecutes the initiating transaction with the appropriate code

- construction
- miscellaneous/unsafe
- transactional process

NOTE: To be more response prescriptive, TX SET v5.0 implemented (5) new unexecutable codes

Sample 814_28 CU codes

T017	Customer Requested Clearance - Unable to do work on date requested
T018	Other
	Requires explanation in REF03
T019	Tampering
T021	Competitive Retailer in Default
T022	Force Majeure Event
T023	Move-Out transaction (814_24) was treated as a force off since (814_03) Move-In transaction received by the TDSP was scheduled for the same date.
T024	Switch or Move-In Request cannot be completed due to Switch Hold recently applied to this ESI ID
T025	Competing Transaction Scheduled for Same Date

Monthly or Final Usage and TDSP Invoice

867_03 Monthly or Final Usage	810_02 TDSP Invoice
TDSP to ERCOT to CR	 Point to point transaction
 Monthly or Final usage 	Invoice from TDSP to CR
 Only the 867_03F will appear in MIS 	Start / End datesRate Classification Code
 Meter consumption data for invoicing Start / End dates 	 Line item delivery charges
Start / End datesStarting / Ending Register Reads	SAC04 codeBilling determinant (rate)
 Summary KWh for NIDR meters (AMS meters) 	Explanation of chargeNon-discretionary charges -
 Interval KWh for IDR meters 	TCRF, Customer charge, etc.
kW / kVAR values, if applicableActual or estimated	 Discretionary service charges -
 Distributed generation loop 	MVI, DNP fees, etc.

867_03 and 810_02 are usually paired to trigger CR customer billing

Checkpoint Questions

True or False: Response transactions can only be Rejects.

True or False: A point-to-point transaction is sent only to ERCOT.

Checkpoint Questions

What transaction is used to determine the actual start date for a customer?

- a) 814_04
- b) 814_16
- c) 867_04
- d) 814_01

Checkpoint Question

Which transaction changes the meter and/or meter information?

- a) 814_09
- b) 814_18
- c) 814_26
- d) 814_20

Transaction Process Flow

Move In (MVI) – Reject





Move In – Accept

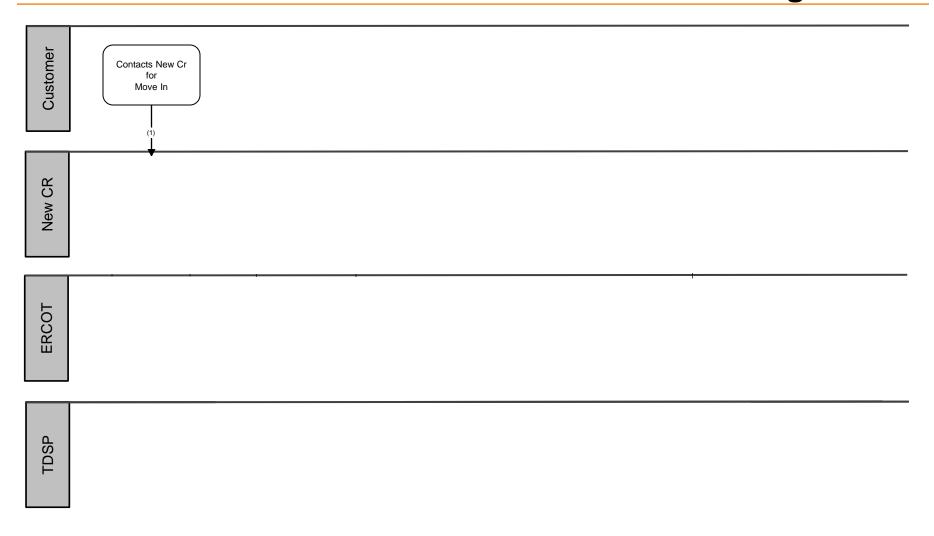






Move-In Swimlane

Scenario: Customer Move-In with ESI ID De-Energized



Move In w/ Permit Required – New Installation







Move In w/ Permit Not Received







Move In w/ Cancel







Move In w/ Date Change









Checkpoint Questions

Yes or No: If a MVI order is submitted and an 814_28 PR is received, does it cancel the original MVI order if the permit is received within 20 Retail Business days?

Yes or No: If a MVI order is submitted and an 814_28 PR is received and then later an 814_08 is received, should the CR receive an 867_04?

Yes or No: Based on the scenario in the previous question, should the CR expect this customer to be with the submitting CR?

Switch - Rejected









Switch – Accept









Switch Hold – Add – Deferred Payment Plan (DPP)







Switch Hold – Add - Tampering







Switch Hold – Remove – DPP / Tampering







69

Switch w/ Switch Hold







Checkpoint Questions

What transaction does the TDSP receive when an 814_01 or 814_16 is initiated?

- a) 867_04
- b) 814_03
- c) 867_03
- d) 814_04

Checkpoint Questions

A Customer Loss (814_06) transaction is sent to which entity?

- a) Current REP of Record
- b) TDSP
- c) ERCOT
- d) New CR

Move Out (MVO) – Reject





TDSP

Move Out – Accept





TDSP

True or False: If a Switch Hold exists on an ESIID, a MVO transaction (814_24) will automatically reject.

A date change transaction (814_12) is sent to change the date for which transactions? Select all that apply.

- a) 814_01
- b) 814_05
- c) 814_08
- d) 814_16
- e) 814_18
- f) 814_24

Solution to Stacking – RMG Section 11.1

Solution to Stacking, provides the processes and guidelines for Market Participants operating in the Texas retail market to handle multiple non-sequential Texas Standard Electronic Transactions (TX SETs) on a single Electric Service Identifier (ESI ID)

These include:

- ERCOT Operating Rules
- TDSP Operating Rules
- REP Operating Rules

ERCOT Operating Rule Examples

Cancellation Rules -

- MVI / MVO trumps SWI (Rule 7)
- MVI trumps MVO w/ same date (Rule 8)

Concurrent Processing Rules -

- Multiple MVIs w/ different dates (Rule 12)
- Multiple SWI w/ different dates (Rule 13)

Pending Transactions –

- 814_06 Loss Notification (Rule 15)
- 814_22 CSA upon receipt of MVO, enrollment will be sent to CSA holder (Rule 17)

TDSP and REP Operating Rule Examples

TDSP Operating Rule 8 -

 The TDSP will reject Backdated Transactions with an 814_04, Enrollment Notification Response, or 814_25, Move Out Response, if it is not associated with a back-office clean up, including safety-net move in.

REP Operating Rule 13 -

 CSA Bypass Code – '2W' only to be used by CSA holder on a MVO request

(New 5.0 validation)

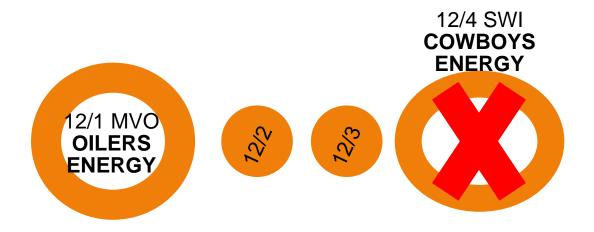
ERCOT Rejection Operating Rules

Scheduled	New Transaction	Rejected?	Reason
Move in	Move in	Yes	NFI
Move in	Self-selected Switch	Yes	NFI
Move in	Move out	No	-
Move in	Standard Switch	Yes	NFI
Move out	Move in	No	-
Move out	Self-selected Switch	Yes	SBD
Move out	Move out	Yes	DUP
Move out	Standard Switch	Yes	SBD
Switch	Move in	No	-
Switch	Self-selected Switch	Yes	NFI
Switch	Move out	No	-
Switch	Standard Switch	Yes	NFI

ERCOT Operating Rule 4

MVO trumps SWI

ERCOT will reject a Switch Request if the ESI ID is scheduled to be De-energized at ERCOT on the Requested Date.



COWBOYS ENERGY will need to submit a MVI (814_16) in order to enroll their customer.

ERCOT Rejection Operating Rules

Scheduled	New Transaction	Rejected?
Mass Transition Drop	Move in	No
Mass Transition Drop	Self-selected Switch	No
Mass Transition Drop	Move out	No
Mass Transition Drop	Standard Switch	No
Acquisition Transfer	Move in	No
Acquisition Transfer	Self-selected Switch	No
Acquisition Transfer	Move out	No
Acquisition Transfer	Standard Switch	No

In the event of a Mass Transition or Acquisition Transfer, ERCOT will not reject transactions that are a result of customer choice based on timeline.

ERCOT Operating Rules Scenarios

Scenario 1: Customer is shopping. They sign up with multiple retailers. Which transaction will prevail?

First in is determined by the time-stamp applied when the transaction is received by ERCOT.

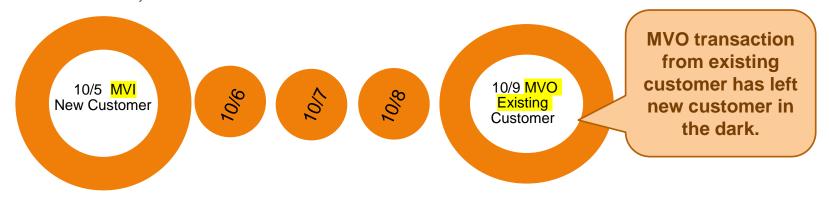
Scenario 2: Tenant has scheduled a Move out with their retailer for next week. The LL has called to schedule a Move in for make ready the same day. Which transaction will prevail?

Scenario 3: Customer with a critical designation has been shopping and has scheduled a switch from retailer A to retailer B. Retailer C sends a Move in, instead of a switch. What will happen and what are the possible consequences?

REP Operating Rules

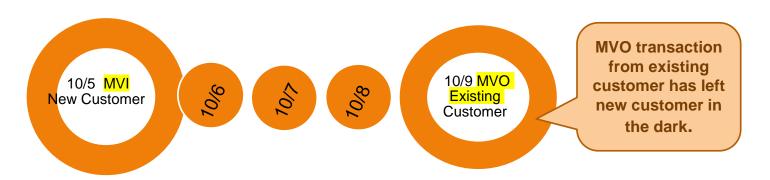
RMG 11.4.1 REP Operating Rule 1: Cancel Move Out

Transactions are validated for ROR not customer. Therefore, REPs who have a pending move out and that REP submits a move in with an earlier Requested Date are responsible for canceling the Pending move out if that is what the Customer requires (REP manages Customer expectations). If the REP does not cancel the move out, the move out will be allowed to effectuate.



If a REP enrolls a new customer at the same premise and an existing customer has a future dated MVO, if the REP fails to cancel the future dated MVO, the MVO will be executed leaving the new customer in the dark

REP Operating Rule 1: Scenarios



Scenario 4: A landlord is completing a make ready/clean & show. They move-in on 10/5 and are moving out on 10/9. Their retailer has sent both a move-in and a move-out.

Scenario 5: The tenant is with Oilers and scheduled their move out for 10/9. The Landlord calls Oilers to start services and schedules a move in for 10/5 is completing a make ready. If Oilers does not cancel the tenant MVOT out 10/9, what happens?

A MVI is submitted and scheduled by OILERS ENERGY and then another MVI is submitted later by COWBOYS ENERGY requesting the same day. Which entity would receive an 814_17 Not First In (NFI) reject?

- a) TDSP
- b) ERCOT
- c) OILERS ENERGY
- d) COWBOYS ENERGY

Which entity is responsible for sending an 814_08 cancel when there is a MVO for Customer A pending for 5/5 and a MVI for Customer B pending for 5/1, both with the current REP?

- a) TDSP
- b) ERCOT
- c) Current REP
- d) Another REP

Which entity is responsible for sending an 814_08 cancel when there is a MVO for Customer A pending for 5/5 and a MVI for Customer B pending for 5/5 both with different REPs?

- a) TDSP
- b) ERCOT
- c) REP for Customer A
- d) REP for Customer B

What transaction is used to determine the actual end date of a customer?

- a) 814_24
- b) 814_01
- c) 867_03F
- d) 814_22

Move Out to Continuous Service Agreement (CSA)









What does CSA mean?

- a) Continuous Service Arrangement
- b) Continued Service Arrangement
- c) Continuous Service Agreement
- d) Country Served Agreement

If there is a Continuous Service Agreement and the customer moves out what transaction places the service back with the CSA?

- a) 867_04
- b) 814_18
- c) 814_01
- d) 814_22

Disconnect for Non-Pay (DNP)*

Current CR

ERCOT

TDSP

* Does not apply to MOU/EC

Reconnect after DNP*

Current CR

ERCOT

TDSP

* Does not apply to MOU/EC

What transaction is necessary in order to re-connect a customer after a disconnect for non-payment or cancel a pending disconnect for non-payment?

- a) 650_02
- b) 814_08
- c) 650_01
- d) 814_16

New Indicator Codes in 814_16 Move-In Transaction for Inadvertent Gain or Customer Rescission

These are the transactions that include the new indicator code when an Inadvertent Switch occurs and is returned to the original losing REP.

This is after a MarkeTrak has been submitted and both REPs have agreed to have the ESID returned to the losing REP.

```
814_16 – Move In (CR to ERCOT)
```

814_03 – Enrollment Notification Request (*ERCOT to TDSP*)

814_04 – Enrollment Notification Response (*TDSP to ERCOT*)

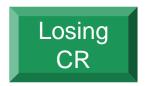
814_05 - Competitive Retailer Enrollment Notification Response (ERCOT to CR)

Indicator Codes:

'IA' – Inadvertent Gain MVI

'CR' – Customer Rescission MVI

Returning an Inadvertent Gain (IA) or Customer Rescission (CR) to the Losing REP









True or False: For resolution of an Inadvertent Gain, every backdated/prospective dated move-in should have a CR or IA code within the transaction.

Acquisition Transfer vs. Mass Transition Process

What is Acquisition Transfer ("AQ")?

Is the transfer of ESI IDs from the Current CR to another CR(s) as a result of an acquisition pursuant to **P.U.C. SUBST. RULE 25.493**.

- Example: CR selling some or all ESI IDs to another CR and ERCOT is requested to initiate this process. CR selling may continue to be Certified in the Retail Market.
- Note: Not all mergers and acquisitions will utilize this process.

What is a Mass Transition ("TS")?

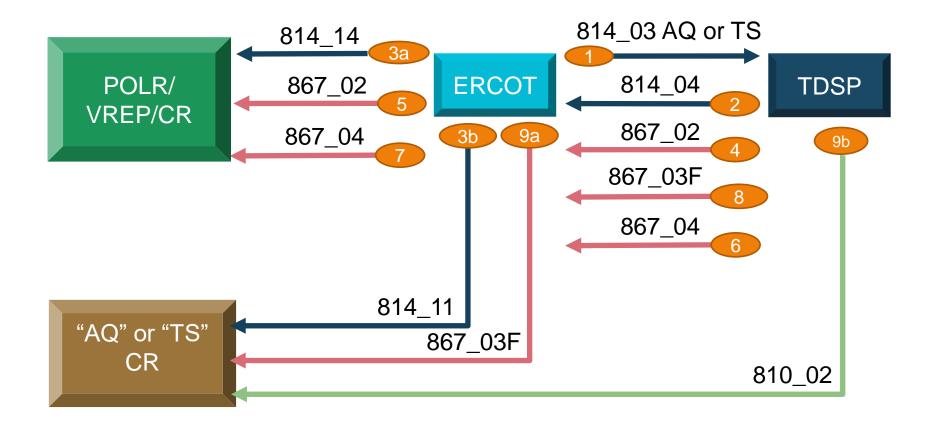
Is the expeditious transfer large numbers of ESI IDs from one Market Participant (MP) to another pursuant to **P.U.C. SUBST. RULE 25.43**.

• Examples: Voluntary or Involuntary Decertification, Bankruptcy, or CR Defaulted on their Financial Obligations to ERCOT. **CR is Decertified or no longer Active MP!**

Both the "AQ" or "TS" processes:

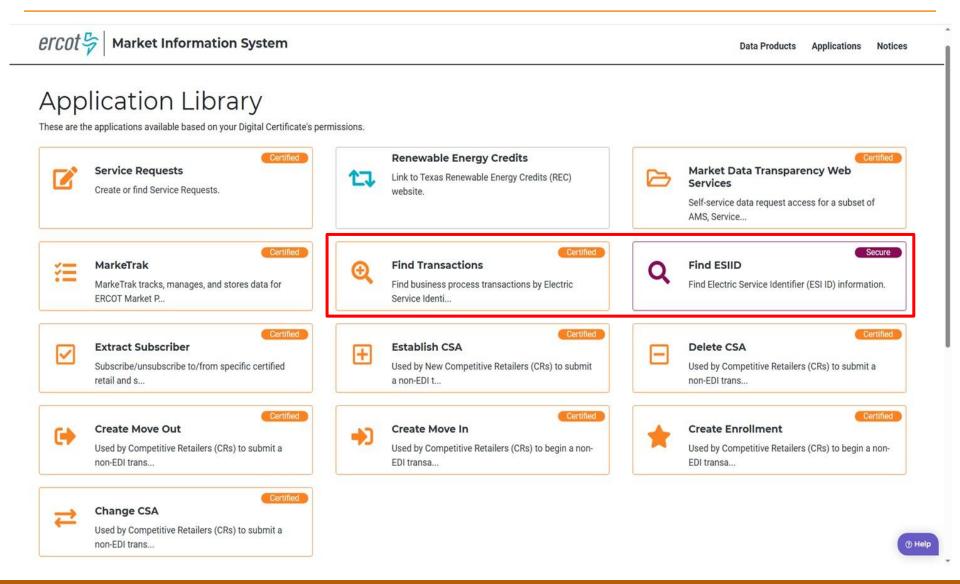
- Utilizes TX SET 814_03 either "AQ" or "TS" transaction initiated by ERCOT;
- Transfers REP of Records' responsibilities for affected ESI IDs in a manner that protects the continuity of service to Customers;
- Allows for the honoring of Customer's Choice to Switch (814_01) to their chosen Competitive Retailer.

Acquisition Transfer ("AQ") or Mass Transition ("TS") Transaction Flow Process

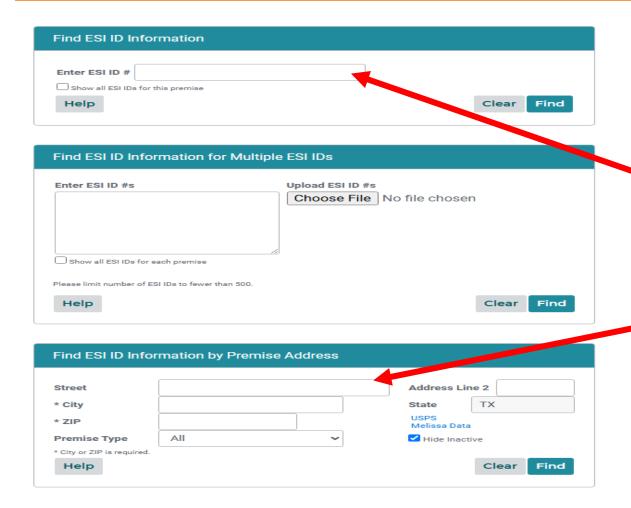


MIS Portal

Market Information System



Find ESI ID

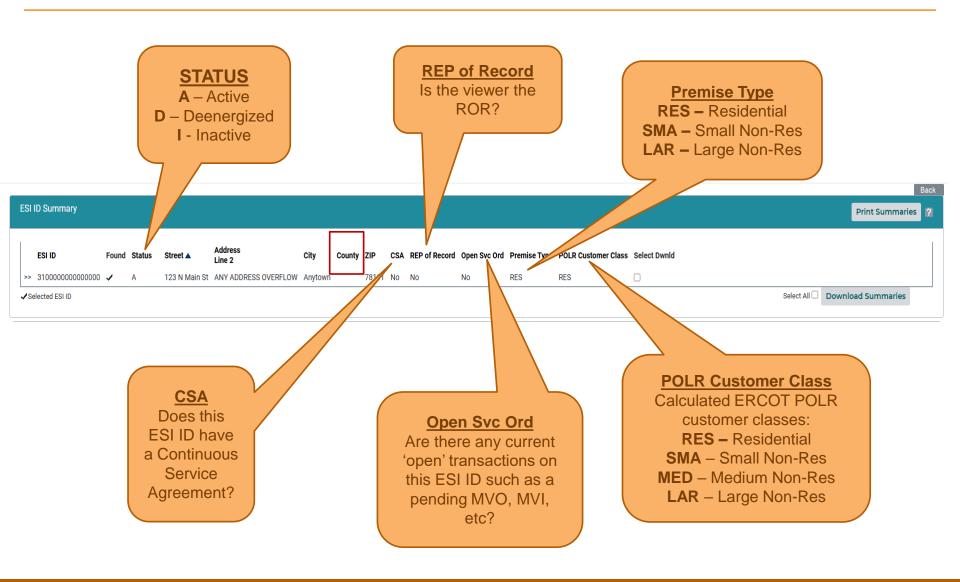


Additional information is accessed via an ESI ID #
Or
An address can be used to find the ESI ID number

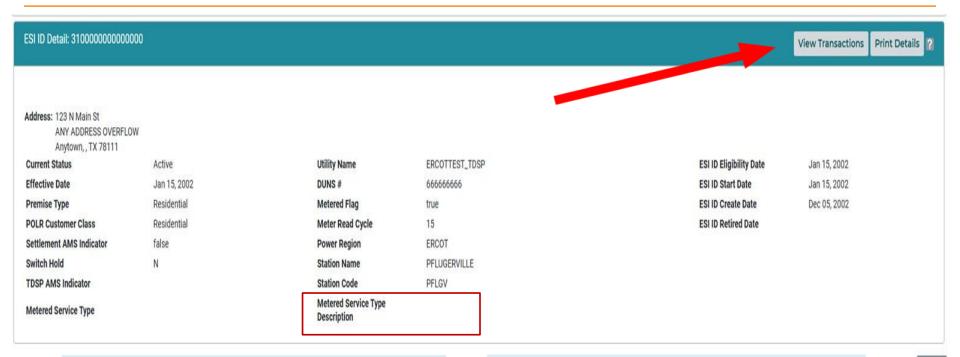
serving that premise

An asterisk (*) serves as a wildcard for address search

Find ESI ID



Find ESI ID – Additional information



Settlement AMS Indicator – 'true' if AMS meter has been provisioned and ERCOT is settling on AMS interval data vs deemed profile data

TDSP AMS Indicator – indicates if AMS meter is remote or manual; if NULL, it either unmetered, NIDR, or a true IDR meter

Metered Flag – 'true' if metered premise, 'false' if unmetered premise

ESI ID Dates

Eligibility Date – first possible date a Switch can be initiated

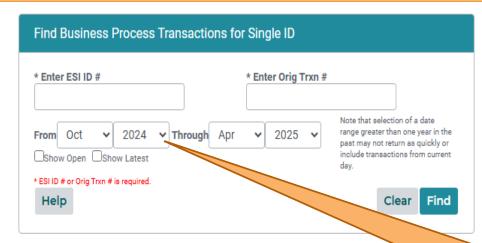
Start Date – Date CR became Rep of Record, won't appear for non-ROR ESIs

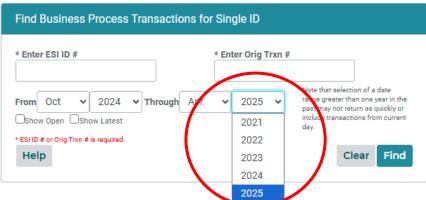
Create Date - Date ESI ID was created

Retired Date - Date ESI ID was retired

Back

Find Transactions





Enter ESI ID #s

Upload ESI ID #s

Choose File No file chosen

Choose File No file chosen

From Oct > 2024 > Through Apr > 2025 > Note that selection of a date range greater than one year in the past may not return as quickly or include transactions from current day.

Please limit number of ESI IDs to fewer than 500.

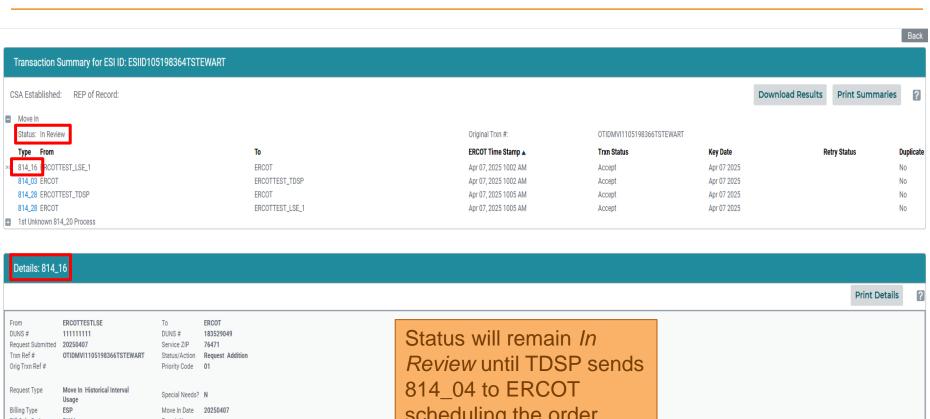
Help

Clear Find

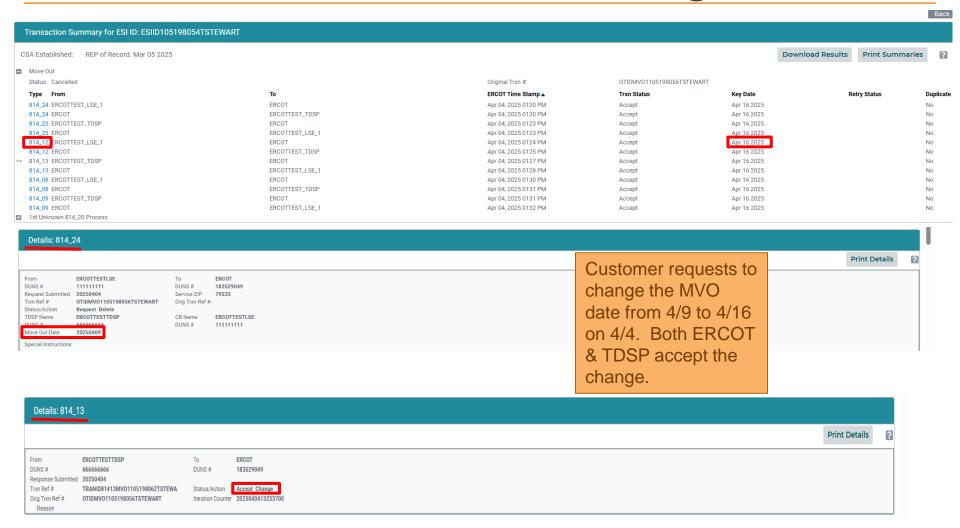
Use drop down arrow features to specify dates for the historical transactions needed.

Default will be only the last seven months of activity and maximum of 5 years.

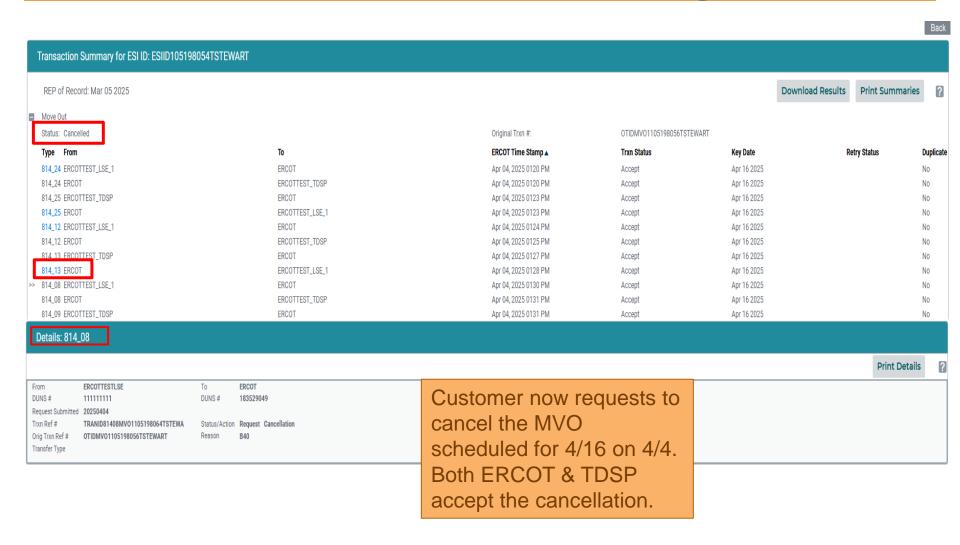
Find Transactions – MVI w/ permit required



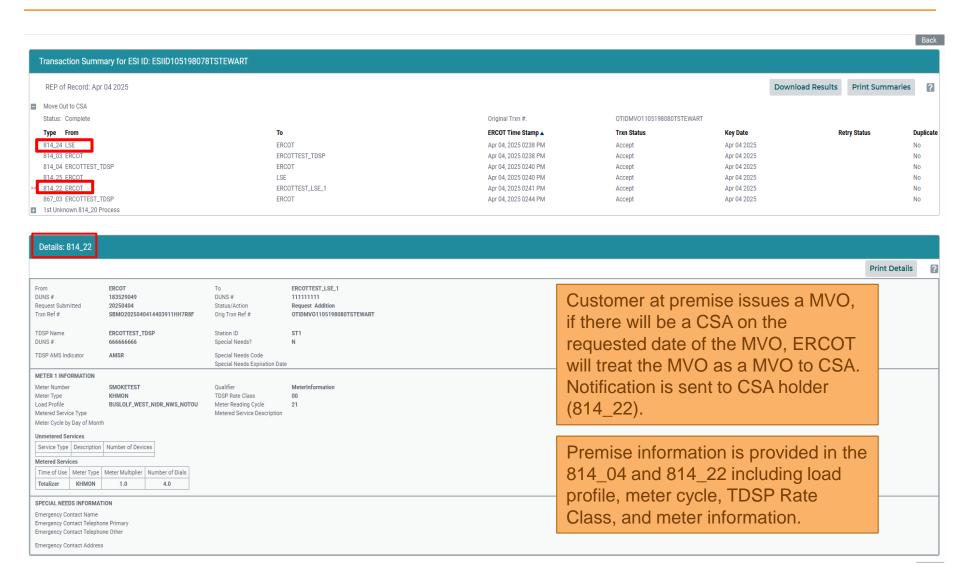
Find Transactions - MVO w/ Date Change & Cancel



Find Transactions – MVO w/ Date Change & Cancel

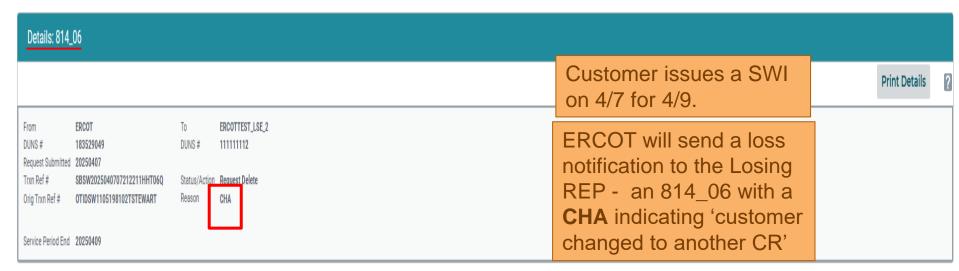


Find Transactions - MVO to CSA



Find Transactions – MVO trumps SWI





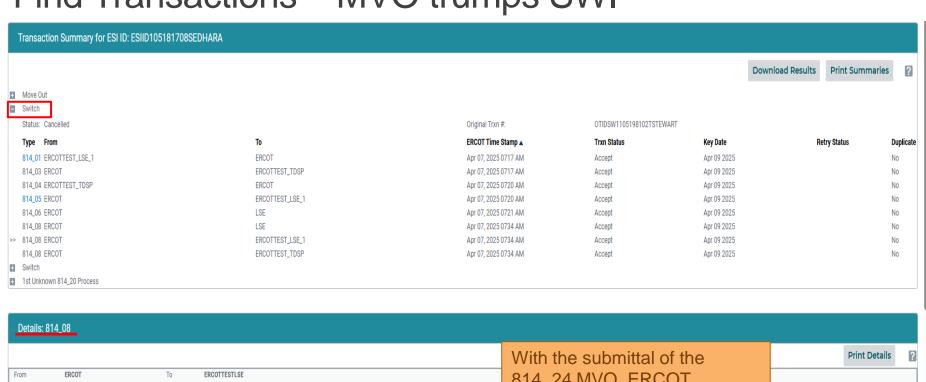
Find Transactions – MVO trumps SWI

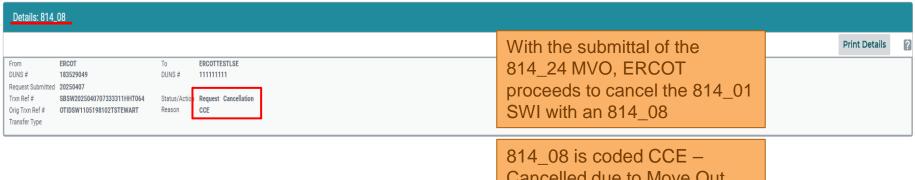


Existing REP issues MVO for customer – customer possibly indicated they wanted to "cancel their service" with their current REP.

ERCOT will review any pending transactions two retail *business* days prior to the effectuating date.

Find Transactions – MVO trumps SWI





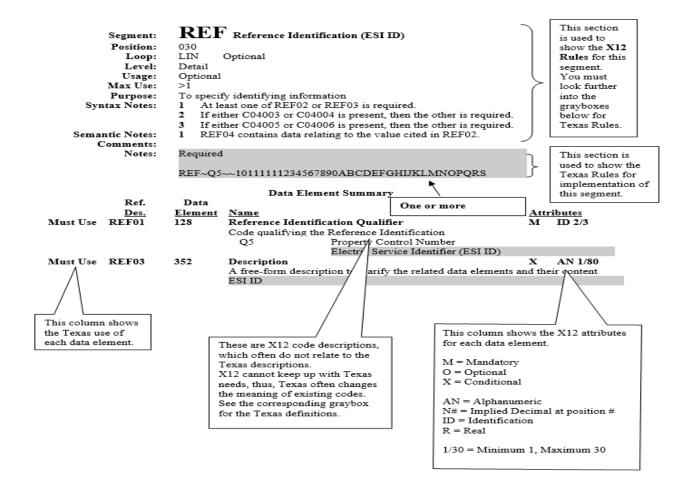
Cancelled due to Move Out

The RFP will now have to submit an 814 16 MVI to energize the premise.

TX SET Implementation Guides

TX SET Implementation Guides w/ Examples

814_20 EDI transaction guide



TX SET Implementation Guides w/ Examples

814_20 EDI transaction example – meter exchange

June 11, 2012 T814_20: ESI ID Maintenance Request Version 4.0

814_20 Example #2 of 10

Maintain ESI ID Notification Request - ERCOT to Current CR

Maintain ESI ID Notification Request – ERCOT to current CR					
ERCOT forwards meter exchange data the Current CR Example includes a meter exchange to an AMS meter with remote disconnect / reconnect capabilities and a change in Load Profile as a result of the Meter Exchange ERCOT stores the Load Profile change and forwards the all information to CR					
ST~	814~00000001	Transaction Type, Transaction SET Control Number			
	V~13~200805101201001~20090701~~~2008 01956534~~20	Request, Unique Transaction Number, Transaction Date, Original Transaction ID, SET Transaction Number			
N1^	'8S^TDSP NAME~1~009876543	TDSP Name and DUNS Number			
N1^	'AY~ERCOT~1~183529049~~41	ERCOT Name and DUNS Number, Sender			
N1^	'SJ~CR NAME~1~987654321~~40	CR Name and DUNS Number, Receiver			
LIN	~1~SH~EL~SH~MP	Maintenance Request			
	ASI~7~001	Request to Change ESI ID Information			
REF~MR~AMSR		AMS Indicator			
REF~Q5~~12345678910111231		ESI ID			
REF~TD~REFMR		Reason for Change, AMS Indicator			
	DTM~152~20120629	Effective Date of Change			
	NM1~MX~3~~~~32~MTR012345	Meter Exchange, New Meter Number			
	REF~46~MTR987654	Old Meter Number			
	REF~LO~RESLOWR_WEST_IDR_WS_NO TOU	Load Profile			
	REF~MT~KHMON	Meter Type			
REF~Q2~0~KHMON~TU>51		Start Meter Read			
REF~Q3~6896~KHMON~TU>51		End Meter Read			
REF~4P~1~KHMON~TU>51		Meter Multiplier, Total			
REF~IX~5~KHMON~TU>51		Number of Dials, Total			
	REF~TD~REFLO	Reason for Change, Load Profile			
SE~	Number of Segments, Transaction SET Control Number				

Electronic Data Interface (EDI) Transactions

```
*00*
                                                                       *001201*0030*U*00401*830163719*0*P*^~
ISA*00*
                                *01*666666666
                                                   *01*183529049
G5*GE*666666666*183529049*20180830*0840*30163719*X*004010~
ST*814*0000000021~
BGN*13*OTID81420M00830163718MC5YFMK1*20180830*****20~
N1*85*TDSP*1*666666666**41~
N1*AY*ERCOT*1*183529049**40~
LIN*1*SH*EL*SH*MP~
ASI*7*001~
REF*05**ESIID0830132731KJSMCPDN~
REF*MR*AMSR~
REF*TD*REFMR~
DTM*152*20180830~
NM1*MX*3******32*GE8926487~
REF*46*AB8569742~
REF*4P*10*KHMON*TU451~
REF*LO*BUSMEDLF_EAST_NIDR_NWS_NOTOU~
REF*O2*O*KHMON*TU451~
REF*Q3*6896*KHMON*TU451~
REF*IX*5*KHMON*TU451~
REF*MT*KHMON~
REF*TD*REFLO~
SE*20*000000021~
GE*1*30163719~
IEA*1*830163719~
```

EDI code is translated by each Market Participant's system into a readable format.

One does not have to know the code to understand the transaction

TX SET Training Group Exercise

Group Exercise – Part 1

Provide each transaction number.

Who the transaction is from and who it is going to.

Who is the REP of Record for the scenario listed below?

Customer is moving and calls COWBOYS ENERGY to start service at a new address and OILERS ENERGY is the current REP of Record at that premise ...

*Hint - some lines can have up to 4 dots

Group Exercise – Part 1: TX SET Process Flows

		From				То			
Transaction Type	Trans #	ERCOT	TDSP	OILERS ENERGY	COWBOYS ENERGY	ERCOT	TDSP	OILERS ENERGY	COWBOYS ENERGY
Move In									
Enrollment Notification Request									
Enrollment Notification Response									
CR Enrollment Notification Response									
Historical Usage (If requested by REP)									
Loss Notification									

Continuing from Scenario 1 Group Exercise – Part 2:

Provide each transaction number.

Who the transaction is from and who it is going to.

Who is the REP of Record for the scenario listed below?

Customer calls COWBOYS ENERGY to cancel the Move in the day before the scheduled date...

*Hint – some lines can have up to 4 dots

Group Exercise - Part 2: TX SET Process Flow

Continuing from Scenario 1: Customer calls COWBOYS ENERGY to cancel the move in the day before the scheduled date...

			From				То		
Transaction Type	Trans #	ERCOT	TDSP	OILERS ENERGY	COWBOYS ENERGY	ERCOT	TDSP	OILERS ENERGY	COWBOYS ENERGY
Cancel Request – on day before MVI schedule									
Cancel Response - Accept									
Cancel Request – Response to Cancel Accept									

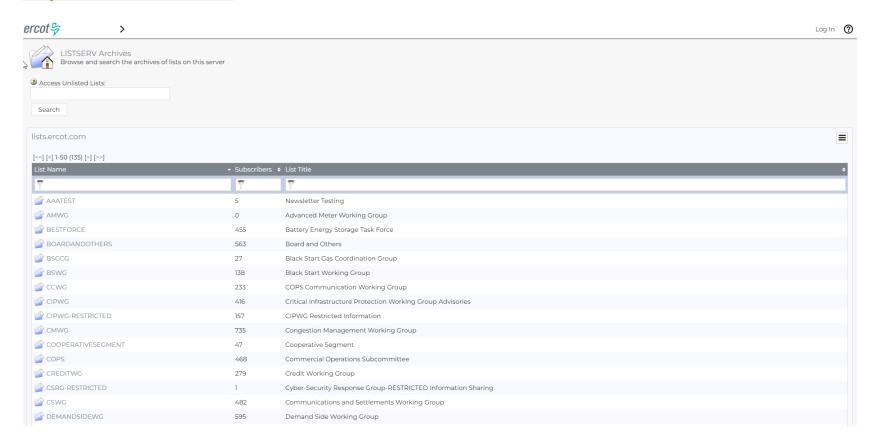
Group Exercise – Part 3: TX SET Bonus Questions

If the Cancel is Rejected in Exercise – Part 2, who is the REP of Record?

If the Cancel is Rejected in Exercise – Part 2, what PROCESS should be initiated?

Listserv

http://lists.ercot.com



Additional resources

ERCOT Client Services

Clientservices@ercot.com

ERCOT Mailing Lists

http://lists.ercot.com/

ERCOT Nodal Market Protocols

http://www.ercot.com/mktrules/nprotocols/

ERCOT Training

http://www.ercot.com/services/training/

Market Education Contact

Training@ercot.com

Scan this QR code to take the course survey!

https://www.surveymonkey.com/r/ERCOTILT



Appendix

127

Texas SET Swimlanes

Texas SET Swimlanes Scenarios

Description	File Name and Web Link to Documentation
TX SET flow documentation for consolidated billing, remittance and dual billing	Billing Scenarios Version November 2024
TX SET flow documentation for beginning and ending continuous service agreements (CSAs)	Continuous Service Agreement Scenarios November 2024
TX SET flow documentation for handling Move In changes and problems	Customer Move In Scenarios November 2024
TX SET flow documentation for handling Move Out changes and problems	Customer Move Out Scenarios November 2024
TX SET flow documentation for handling customer switch request	Customer Switch Scenarios November 2024

Texas SET Swimlanes

Texas SET Swimlanes Scenarios

Description	File Name and Web Link to Documentation
TX SET flow documentation for Disconnect and Reconnect for Non-Pay	Disconnect Reconnect Non Pay Scenarios November 2024
TX SET flow documentation for customer dropped by Competitive Retailer (CR), disconnect for non-pay services request and Mass Transition from defaulting CR to Provider of Last Resort (POLR)	Mass Transition / Acquisition Scenarios November 2024
TX SET flow documentation for handling Switch Hold add and removal	Switch Hold Scenarios November 2024
TX SET flow documentation of how to report unplanned outages	Unplanned Outages Scenarios November 2024

Texas SET Swimlanes – New with TX SET v5.0

Texas SET Swimlanes Scenarios

Description

File Name and Web Link to Documentation

TX SET flow documentation for Inadvertent Gain, Inadvertent Loss and Customer Recession.

Inadvertent Gain, Inadvertent Loss, Customer Recission Scenarios

TX SET Implementation Guides (IG)

The Texas Standard Electronic Transaction (SET) Implementation Guides provide details of information contained within the electronic transactions used in the competitive retail electric market in Texas.

The **current Version 5.0** of the Texas SET Implementation Guides contains updates to retail transactions to support the following:

- NPRR 1095 Texas SET V5.0 Changes
- RMGRR 169 Related to NPRR1095, Texas SET V5.0 Changes
- Outstanding Change Controls identified and approved by the Texas Set Working Group
- SCR 823 ERCOT's Mass System "County Name" File Updates for Texas SET v5.0 Implementation
- NPRR 1168 Related to RMGRR172, Texas SET V5.0 Continuous Service Agreements Changes
- RMGRR 172 Texas SET V5.0 Continuous Service Agreements Changes
- RMGRR 179 TDSP Temporary Emergency Electric Energy Facility (TEEEF) Deployment Transactional Processing

It was implemented on November 11, 2024.

https://www.ercot.com/mktrules/guides/txset/version

Texas SET Implementation Guides

Service Orders, Invoice and Remittance Transactions				
Transaction and Version	Web Link to Documentation			
Texas SET V5.0 650 Service Orders Point to Point	<u>Guides</u> <u>Examples</u>			
Texas SET V5.0 810 TDSP's Invoice Point to Point	Guides Examples SAC04 Files			
Texas SET 5.0 820 Remittance Advice Point to Point	<u>Guides</u> <u>Examples</u>			

Texas SET Implementation Guides

Enrollments, Rejects and Usage Transactions				
Transaction and Version	Web Link to Documentation			
Texas SET V5.0 814 Enrollments, MVI, MVO, Create/Maintenance/Retire, Maintain Customer Information	<u>Guides</u> <u>Examples</u>			
Texas SET V5.0 824 Invoice or Usage Reject Notification	<u>Guides</u> <u>Examples</u>			
Texas SET V5.0 867 Monthly and Final Usage, Historical Usage	<u>Guides</u> <u>Examples</u>			

Texas SET Implementation Guides

Functional Acknowledgement and CR Option 1 Outage Transactions

Transaction and Version	Web Link to Documentation
Texas SET V5.0 997 Functional Acknowledgement	<u>Guides</u>
Texas SET V5.0 T-Series CR Option 1 Outage Transactions	<u>Guides</u>

Registration and Qualification/Certification

Registration

 The LSE Application for Registration can be found in <u>Section 23</u> of the Protocols.

Qualification/Certification

- CRs must be certified by ERCOT. Please read more about <u>Retail Market</u>
 <u>Test Flight Information</u>
- CRs operating as REPs must also be certified by the Public Utility
 Commission of Texas (PUCT). Please refer to the <u>Retail Electric</u>
 <u>Providers Certification and Reporting</u> section of the PUCT website for more information.
- Contact ERCOT Client Services for a full list of requirements

Retail Market Testing

Key Documents					
Description	File Name & Web Link to Documentation				
The ERCOT Retail Testing Website is used by Market Participants to become certified in conducting retail market processes within the ERCOT market.	Texas Retail Testing				
Retail Market Test Scripts and Workbook	Flight Test Scripts Workbook and Testing Requirements Matrix - TX SET 5.0				
FlighTrak Users Guide	FlighTrak Users Guide v1.1				
Retail Test Environment Users Guide	Retail Market Test Environment User Guide				

Retail Market Testing

Key Documents					
Description	File Name & Web Link to Documentation				
FlighTrak Administrator Form	FlighTrak Administrator Form				
Retail Market Testing Frequently Asked Questions	Retail Market Testing Frequently Asked Questions				
Testing to Production Checklist	Testing to Production Checklist				