



ERCOT Retail 101



**Greetings
and
Introductions**

- WebEx Training Tips
- Windows
- Buttons
- Attendance
- Questions / Chat



**Please enable video
& audio capabilities**

PROTOCOL DISCLAIMER

This presentation provides a general overview of the Texas Nodal Market 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:

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

Topics in this course include:

1

Retail Market Responsibilities

2

Market Rules

3

Retail Operations

4

Metering

5

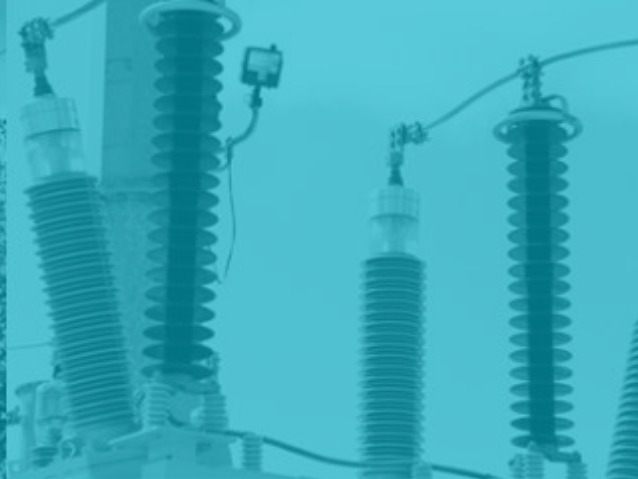
Wholesale Settlement of Retail Load

6

Data Transparency and Availability

7

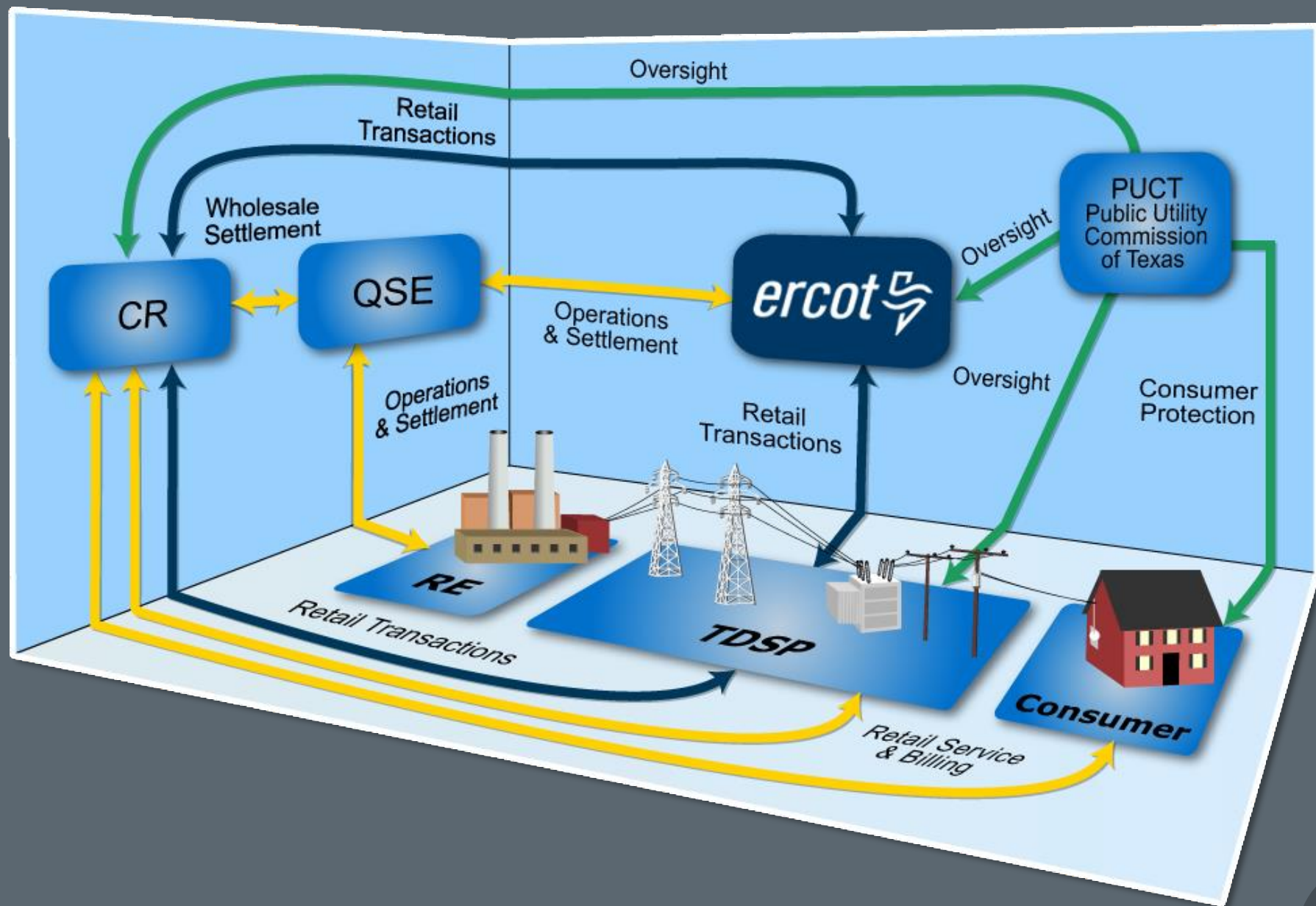
Issue Resolution

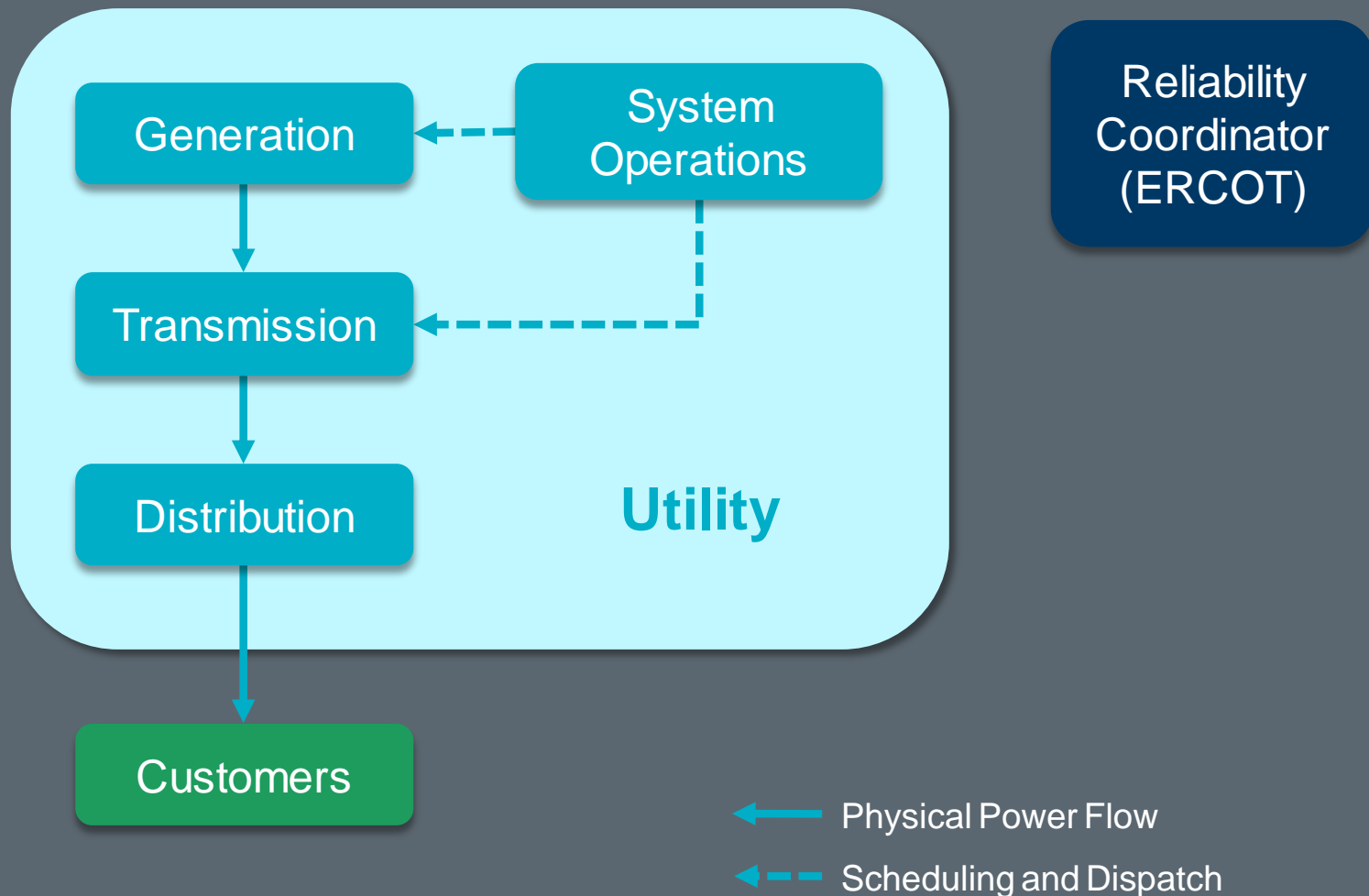


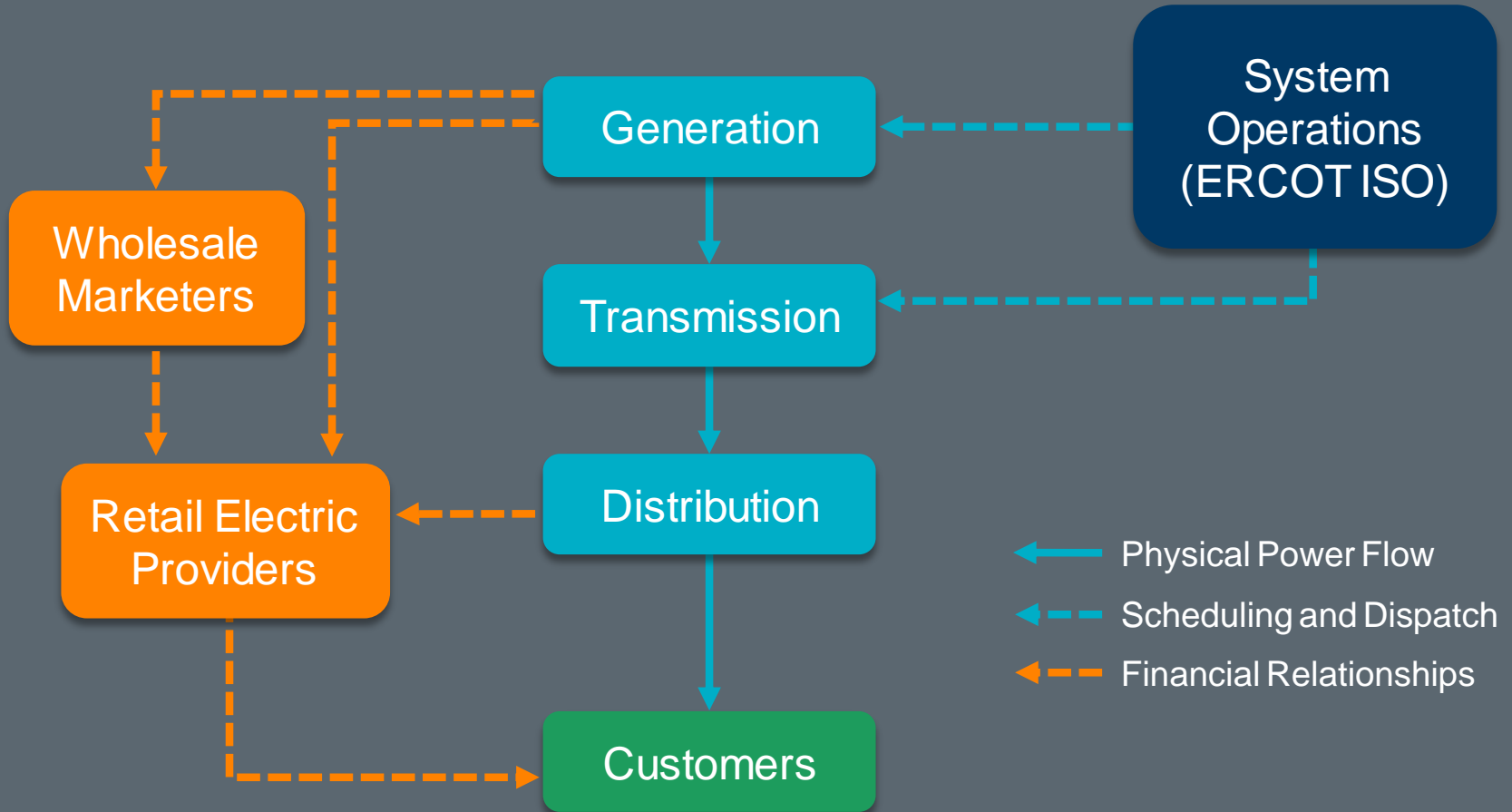
Module 1

Retail Market Responsibilities











Public Utility
Commission of Texas



Electric Reliability
Council of Texas



Qualified
Scheduling Entity



Load Serving
Entity



Competitive
Retailer



An Electrical Cooperative or Municipally Owned Utility who has chosen **NOT** to opt in to retail competition.

Opt-In

An Electrical Cooperative or Municipally Owned Utility who has chosen to opt in to retail competition.

REP

Entities that sell electric energy to retail Customers in the areas of Texas where the sale of electricity is open to retail competition.

Retail Electric Provider or Opt-In Entity



Service Retail Customers



Negotiate Competitive Contracts



Submit Electronic Transactions

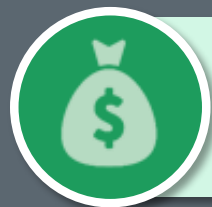
Meet Financial Responsibilities



Buy electricity at wholesale



Pay TDSPs for delivery costs



Pay and/or dispute invoices



Invoice retail Customers for their usage

Investigate Customer Switching Issues

CRs work with TDSPs and other CRs to resolve inadvertent gains and losses.



A Competitive Retailer Must:



Register with the PUCT



Register with ERCOT



Complete Flight Testing through FlighTrak



Be represented by a Qualified Scheduled Entity

Every CR Must Be Represented By a QSE

Choose one



OR

Become one





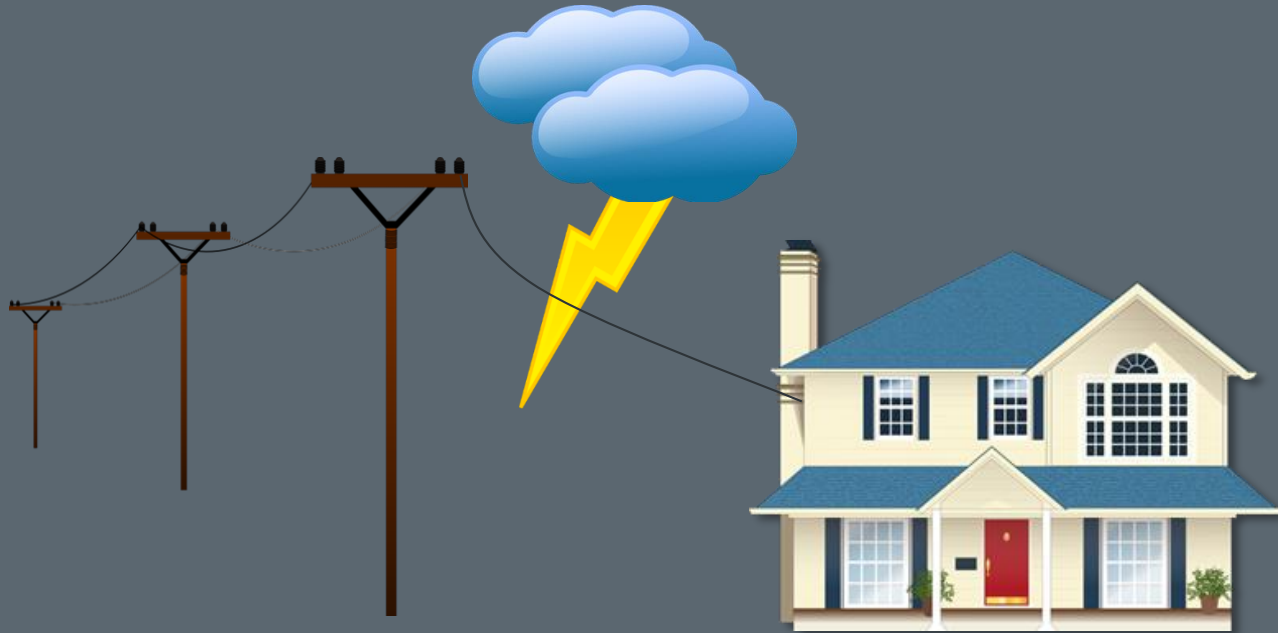
**Physical System
Operations**



**Retail System
Operations**

Physical System Operations

- Maintain reliable transmission and distribution system
- Connect Customer Premise to ERCOT grid
- Resolve power outages



Retail System Operations

- Create, Manage and Maintain ESI IDs
- Facilitate Service Order Requests from CRs
- Provide usage data for Settlement billing
- Investigate customer issues



The Anatomy of an ESI ID

10 xxxxx zzz .. zz

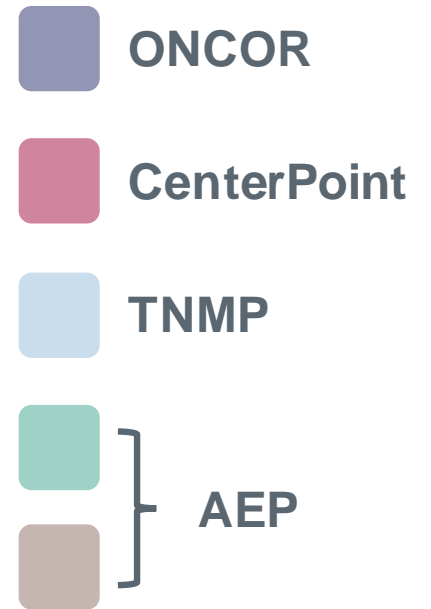
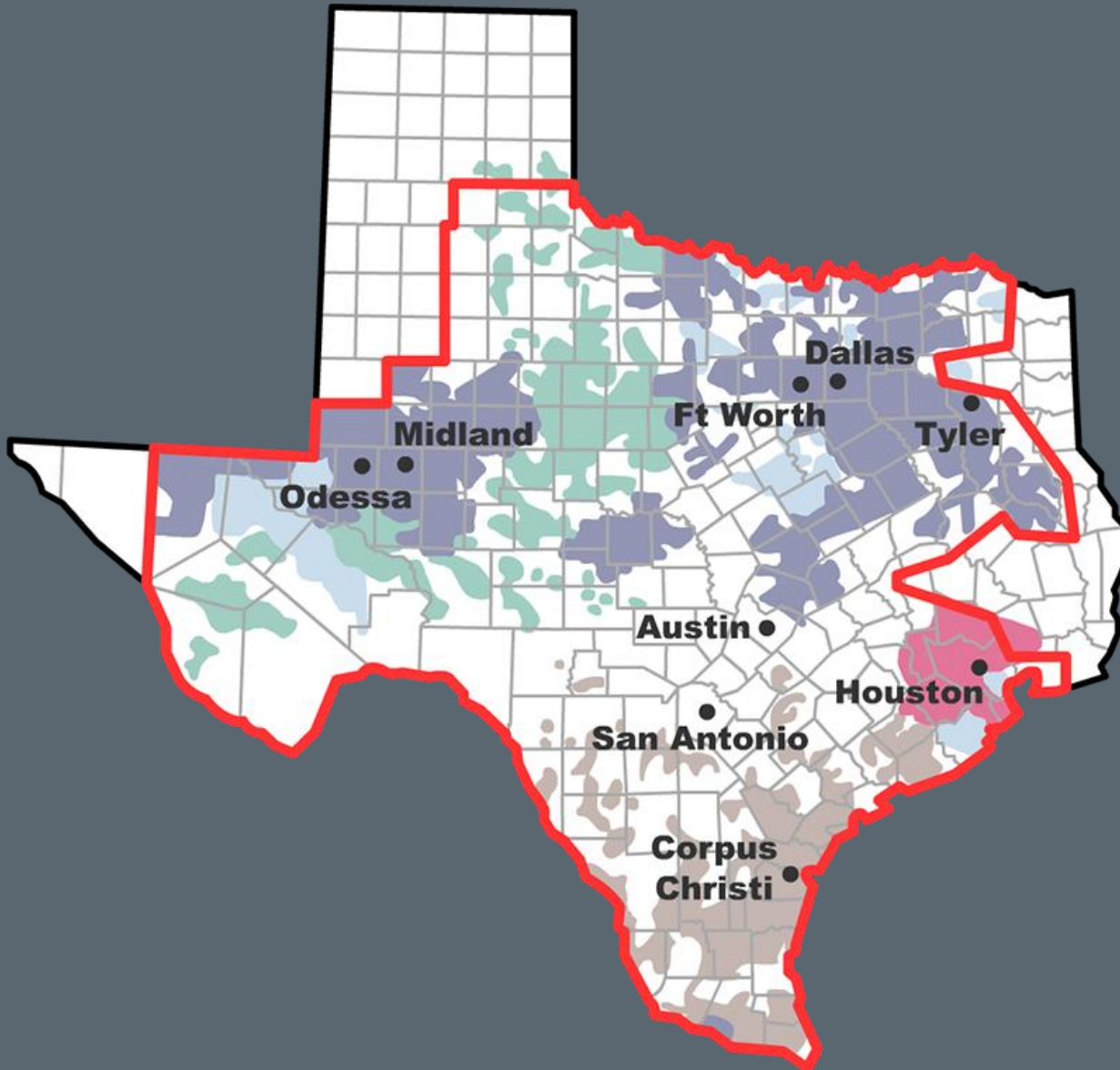
Where	
10	Electric industry prefix
xxxxx	Five digit DOE code for TDSP
zzz .. zz	Up to 29 alphanumeric characters assigned by TDSP

The Anatomy of an ESI ID

10 **XXXXXX** **ZZZ** .. **ZZ**

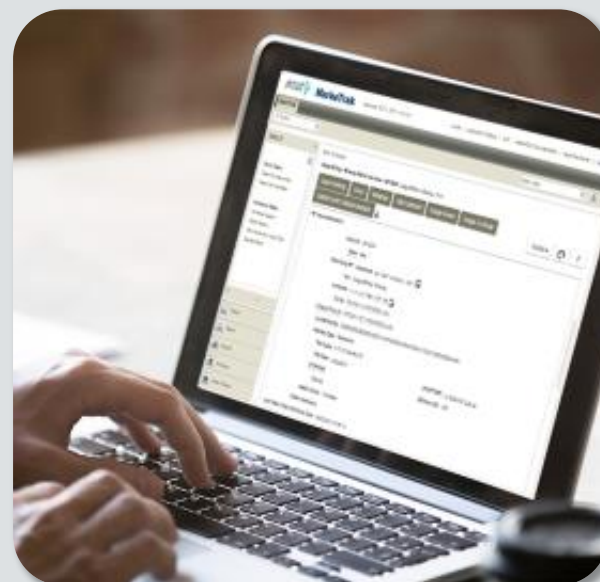
DOE Number	TDSP Name
20404	AEP TX North
03278	AEP TX Central
08901	CenterPoint
13830	Nueces Electric Coop
44372	Oncor Electric Delivery
40051	Texas New Mexico Power (TNMP)
17699	Oncor/SESCO

Where are the competitive meters





**Physical System
Operations**



**Retail System
Operations**

ERCOT Duties



Process retail transactions



Collect and distribute meter data



Establish profiles for all ESI IDs



Act as registration agent



Provide account management



Search

About ERCOT

Services

Committees and Groups

Market Rules

Market Information

Grid Information

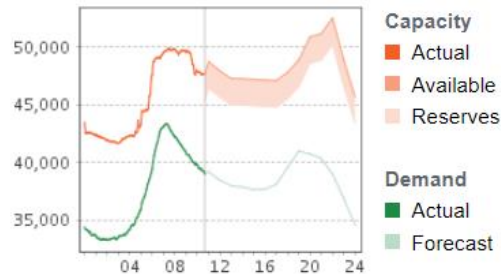


Engaged Participation

Explore the stakeholder groups that develop ERCOT market rules and plan for the future.

LEARN MORE

TODAY'S OUTLOOK



MARKET CONDITIONS

- [View Real-Time Market](#)
- [View Day-Ahead Market \(DAM\)](#)
- [View CRR Information](#)

IN THE SPOTLIGHT

Retail Market Testing
Flight 0220
Application Deadline: Jan 8
Registration Deadline: Jan 29

WHOLESALE PRICES

[View Real-Time resource node prices across the region](#)

MEETING CALENDAR

[View Calendar](#)



Matching

QSE

LSE

CR

TDSP

RE

PUCT

Responsible for making sure customers are protected and everyone follows the rules

The participant responsible for settling with ERCOT

Services customers in competitive areas

Manages poles, wires, meter reads and ESI IDs

Owns and operates the generators

General term for entity providing power to end-use customers



Module 2 Market Rules





Public Utility Regulatory Act
(PURA)



PUCT Substantive Rules



ERCOT Protocols
and Market Guides



Public Utility Regulatory Act (PURA)

- Defines the Public Utility Commission of Texas (PUCT)
- Amended by Senate Bill 7 in 1999
- PUCT and ERCOT responsible for determining specifics
- Continues to evolve



Public Utility Regulatory Act
(PURA)



PUCT Substantive Rules



PUCT Substantive Rules

- Implement PURA requirements:
 - Customer protection rules
 - Standard terms and conditions (Tariffs) for utilities
- Electric Substantive Rules are contained in [Chapter 25](#)
- Refer to [PUCT Website](#) for complete rules



Public Utility Commission of Texas

[Español](#)
[Contact](#)
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[Consumer](#)
[Industry](#)
[Rules & Laws](#)
[Filings](#)
[Agency](#)


About the PUCT

- » Mission and History
- » Commissioners
- » Employment
- » Procurement
- » PUC Policies

Resources

- » PUC Publications
- » Agency Reports
- » PUC News Feeds
- » Administrative Rulemakings

Contact Us

- » Contact Us
- » Staff Directory
- » Department Directory
- » Directions and Map
- » Website Support

Rules and Laws

[Agency Information](#) » [Rules & Laws](#) » [Substantive](#) » Chapter 25 - Electric

Electric Substantive Rules

Chapter 25 Rules

Download Complete set of Chapter 25 Rules (PDF)

Rule	Description/Explanatory Information	Effective
25 TOC	Table of Contents	07/04/19
Subchapter A	General Provisions	
§ 25.1	Purpose and Scope of Rules.	03/12/03
§ 25.2	Cross-Reference Transition Provision.	05/07/98
§ 25.3	Severability Clause.	03/12/03
§ 25.4	Statement of Nondiscrimination.	03/12/03
§ 25.5	Definitions.	05/13/18
§ 25.6	Cost of Copies of Public Information.	06/12/12
§ 25.8	Classification System for Violations of Statutes, Rules, and Orders Applicable to Electric Service Providers.	10/17/06

Customer Protection Rules (Part 1)

<u>§ 25.471</u>	General Provisions of Customer Protection Rules	<u>§ 25.478</u>	Credit Requirements and Deposits
<u>§ 25.472</u>	Privacy of Customer Information	<u>§ 25.479</u>	Issuance and Format of Bills
<u>§ 25.473</u>	Non-English Language Requirements	<u>§ 25.480</u>	Bill Payment and Adjustments
<u>§ 25.474</u>	Selection of REP	<u>§ 25.481</u>	Unauthorized Charges
<u>§ 25.475</u>	General REP Requirements and Information Disclosures to Customers	<u>§ 25.482</u>	Prompt Payment Act
<u>§ 25.476</u>	Renewable and Green Energy Verification	<u>§ 25.483</u>	Disconnection of Service
<u>§ 25.477</u>	Refusal of Electric Service	<u>§ 25.484</u>	Electric No-Call List

Customer Protection Rules (Part 2)

<u>§ 25.485</u>	Customer Access and Complaint Handling	<u>§ 25.492</u>	Non-Compliance with Rules or Orders
<u>§ 25.487</u>	Obligations Related to Move-In Transactions	<u>§ 25.493</u>	Acquisition and Transfer of Customers from one REP to Another
<u>§ 25.488</u>	Procedures for a Premise with No Service Agreement	<u>§ 25.495</u>	Unauthorized Change of REP
<u>§ 25.489</u>	Treatment of Premises with No Retail Electric Provider of Record	<u>§ 25.497</u>	Critical Load, Critical Care and Chronic Condition Customers
<u>§ 25.490</u>	Moratorium on Disconnect on Move-Out	<u>§ 25.498</u>	Prepaid Service
<u>§ 25.491</u>	Record Retention and Reporting Requirements	<u>§ 25.500</u>	Privacy of Advanced Metering System Information



Public Utility Regulatory Act
(PURA)



PUCT Substantive Rules



ERCOT Protocols
and Market Guides



ERCOT is responsible for ...

Protocols

Outline the procedures and processes used by ERCOT and Market Participants.



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.

[Protocol Library - Nodal](#)

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

[Nodal Protocol Revision Requests](#)

Locate current and past Nodal Protocol revision requests, including those pending, approved, rejected or withdrawn.

[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.

[Archives - Zonal](#)

Find archived zonal protocols and related documents.

Related Content

On this site

- [Protocols - Zonal](#)
- [Protocol Revision Requests](#)
- [Protocol Revision Subcommittee](#)

RSS Feeds

- [Nodal Protocol Library](#)
- [RSS Content Help](#)

List of Protocols

Sections	Description
1-2	Construction and Definitions
3-8	System Operations and Wholesale Markets
9-11	Settlement & Billing; Metering; Data Aggregation
12	Market Information System (MIS)
13	Transmission & Distribution Losses
14	Renewable Energy Credit Trading Program
15	Customer Registration
16	Market Participant Registration & Qualification
18, 19	Load Profiling & TX SET
20	Alternative Dispute Resolution Process
21	Revision Request Process



ERCOT is responsible for ...

Protocols

Outline the procedures and processes used by ERCOT and Market Participants.



Market Guides

- Based upon the ERCOT Protocols
- Detailed reference documents



[Home](#) > [Market Rules](#) > [Market Guides](#)

[Protocols - Nodal](#)

Market Guides

[Commercial Operations Market Guide](#)

[Data Transport Guides](#)

[Load Profiling Guide](#)

[Nodal Operating Guide](#)

[Planning Guide](#)

[Resource Registration Glossary](#)

[Retail Market Guide](#)

[Settlement Metering Operating Guide](#)

[Texas SET 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 data transport, including the North American Energy Standards Board Electronic Delivery Mechanism and ERCOT's alternative to FTP.

[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

Related Content

On this site

[ERCOT Protocols](#)

[User Guides](#)

RSS Feeds

[Commercial Operations Market Guide](#)

[Load Profiling Guide](#)

[Nodal Operating Guide](#)

[Planning Guide](#)

[Resource Registration Glossary Guide](#)

[Retail Market Guide](#)

[Settlement Metering Operating Guide](#)

[Verifiable Cost Manual Guide](#)

[RSS Content Help](#)

Retail Market Guide Overview

Sections	Description
1-2	Purpose; Definitions; Acronyms
3	Retail Market Guide Revision Process
4-5	PUCT & ERCOT
6	RMS Working Groups
7	**Market Processes**
8	Municipally Owned Utilities & Co-ops
9	Appendices

Protocol And Market Guide Update Process

- Created and edited by Market Participants
- Changed from time-to-time by Revision requests
- Changes approved by ERCOT Board of Directors or appropriate committee

Market Rules

Balanced market rules are a basic element in Texas competition. Clear, predictable and well-designed rules help foster a stable electricity market. Electric Reliability Council of Texas (ERCOT) market rules are developed by participants from all aspects of the electricity industry. The rules and amendments are reviewed by the Public Utility Commission of Texas to ensure that they satisfy the public interest.

In this section, you will find the ERCOT protocols, guides, policies and procedures that help steer the Texas market participants.

Pending Revision Requests and Issues

Nodal Protocol Revision Requests ▼

Issue	Description
NPRR826	Mitigated Offer Caps for RMR Resources
NPRR838	Updated O&M Cost for RMR Resources
NPRR849	Clarification of the Range of Voltage Set Points at a Generation Resource's POI
NPRR902	ERCOT Critical Energy Infrastructure Information
NPRR903	Day-Ahead Market Timing Deviations
NPRR918	Validation for PTP Obligations with Links to an Option
NPRR919	Exemption from Governor Primary Frequency Response Control for Certain Resources in Private Use Networks
NPRR928	Cybersecurity Incident Notification
NPRR930	Process, Pricing, and Cost Recovery for Delayed Resource Outages
NPRR933	Reporting of Demand Response by Retail Electric Providers and Non-Opt-In Entities
NPRR934	Advance Action Notice (AAN) and Clarify Process for Resource Outage Approval Withdrawal



[Home](#) > [Market Rules](#) > [Protocols - Nodal](#) > [NPRRs](#)

- Protocols - Nodal**
- Current Protocols - Nodal
- Protocol Library - Nodal
- NPRRs**
- NPRR Submission Process
- PIR Submission Process
- Archives - Zonal
- Market Guides
- System Changes
- Compliance
- Business Practice Manual

Nodal Protocol Revision Requests

This section contains nodal protocol revision requests (NPRRs) now in the approval process or already approved.

See [NPRR Submission Process](#) for access to revision request and comment forms.

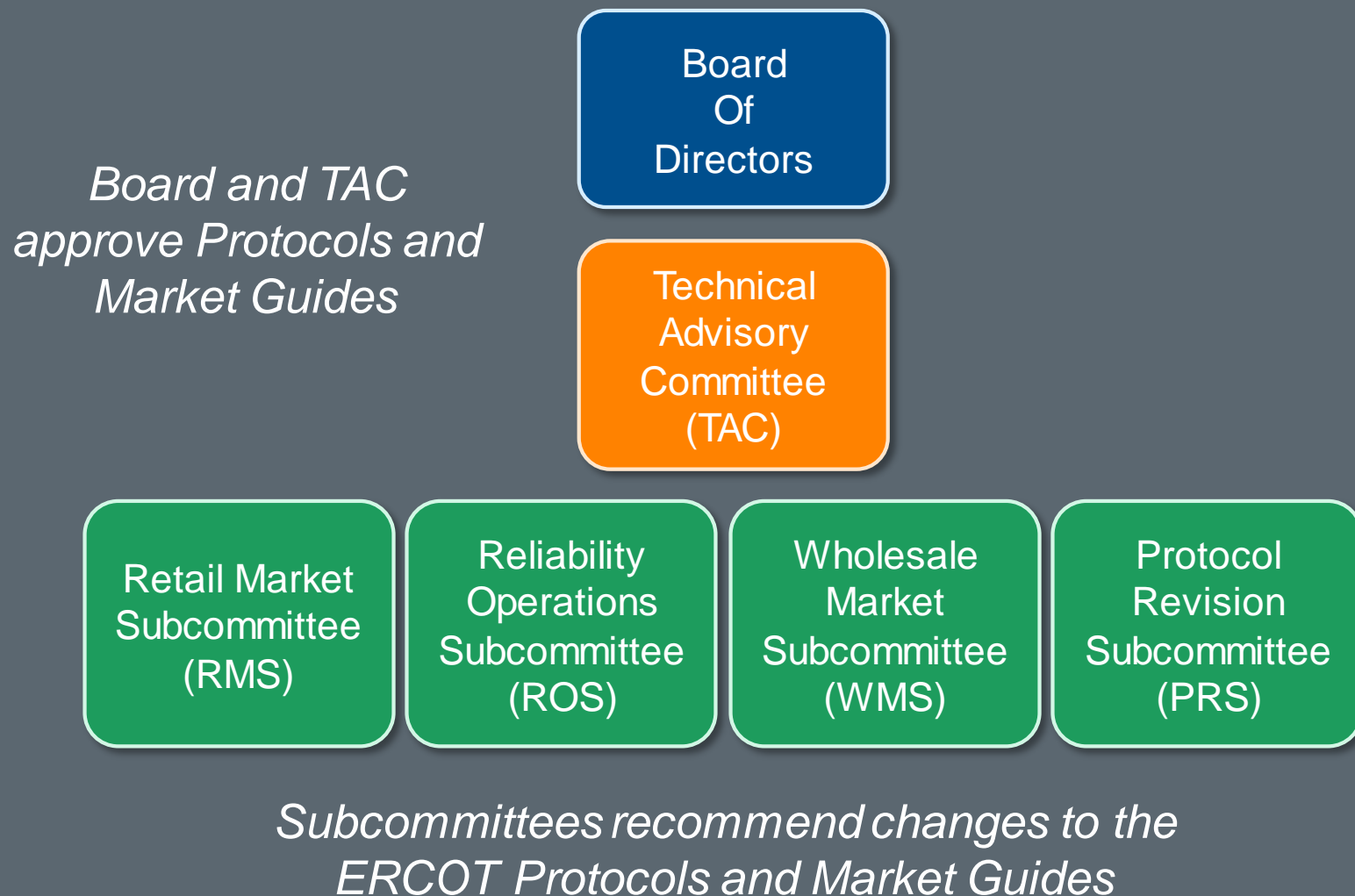
Pending

Issue	Description	Next Group
NPRR982	Alignment of Block Load Transfer (BLT) Requirements Between Protocols and Nodal Operating Guide	PRS
NPRR983	Delete Remaining Grey-Boxed Language Associated with NPRR257, Synchronization with Nodal Operating Guide Section 9, Monitoring Programs and Changes to Posting Requirements of Documents Considered CEII	PRS
NPRR984	Change ERS Standard Contract Terms	PRS

Reports

- [All NPRRs](#)
- [Pending NPRRs](#)
- [Approved NPRRs](#)
- [Withdrawn NPRRs](#)
- [Rejected NPRRs](#)

[View Other NPRRs](#) ▼



Retail Market
Subcommittee
(RMS)

Working Groups

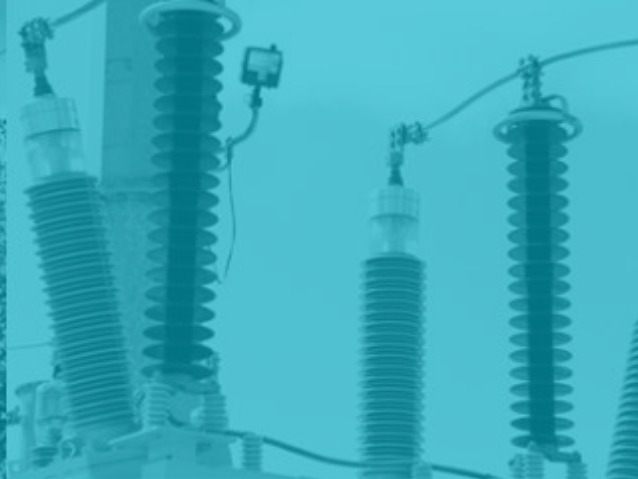
Profiling (PWG)

Texas Data Transport &
MarkeTrak Systems (TDTMS)

Texas SET

Task Forces

Retail Market Training (RMTTF)



Module 3

Retail Operations



Retail Transaction:

A Communication that enables and facilitates retail business processes in the deregulated Texas Electrical Market.

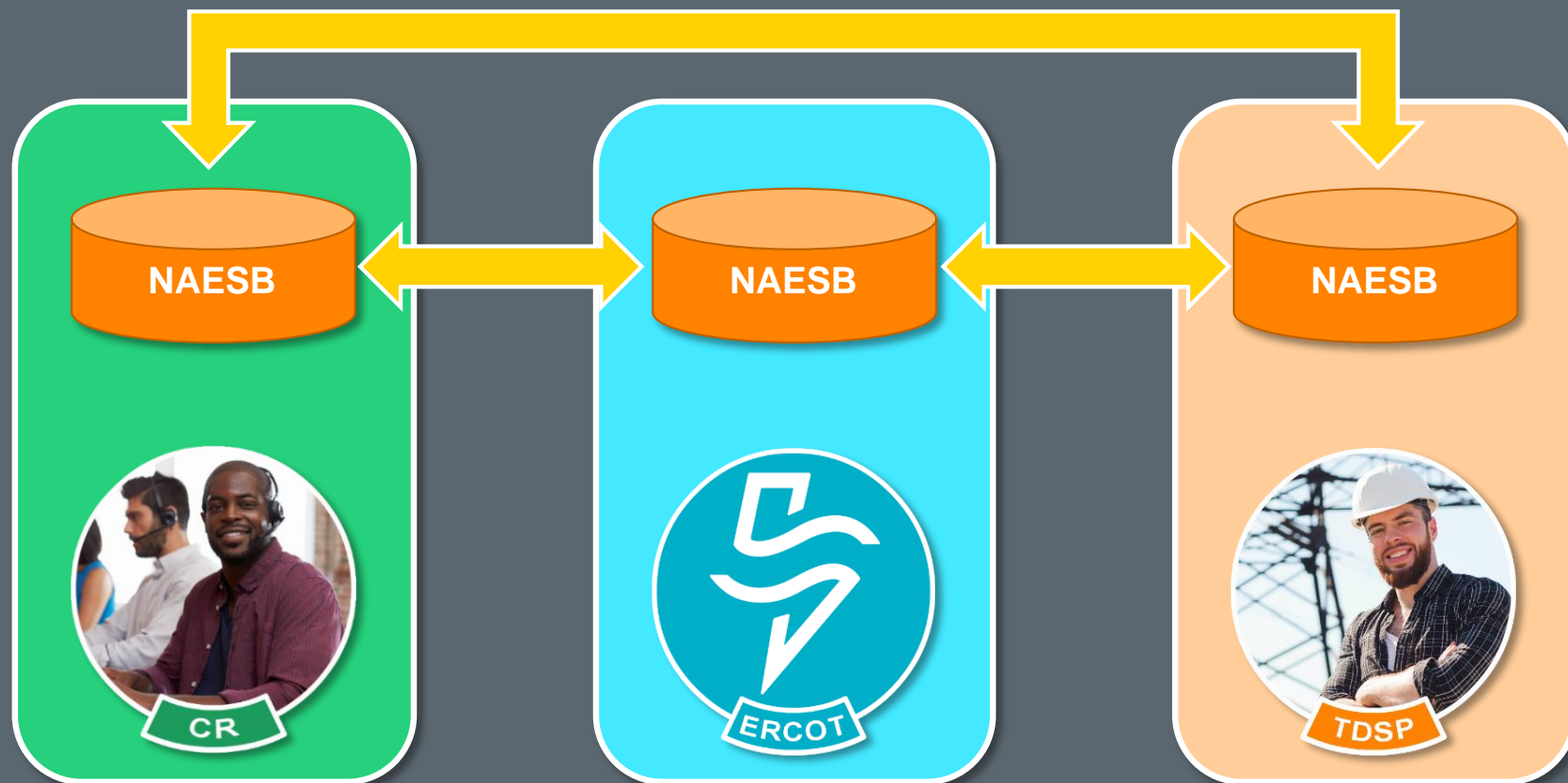
- Involves REPs, TDSPs and ERCOT
- Electronic Data Interchange (EDI) format, based on ANSI ASC X12 Standards



Retail Transactions Are Defined By TX SET Implementation Guides

- Developed and maintained by TX SET Working Group
- Protocol Section 19
- Implementation Guides





North American Energy Standards Board (NAESB)
Common communications protocol



Protocols - Nodal

Market Guides

Commercial Operations
Market Guide

Data Transport Guides

Load Profiling Guide

Nodal Operating Guide

Planning Guide

Resource Registration
Glossary

Retail Market Guide

Settlement Metering
Operating Guide

Texas SET Guides

Texas Standard Electronic Transaction Guides

Information on each Texas Standard Electronic Transaction (Texas SET) used by the competitive retail electric market is available in this section. Implementation guides, retail market processes for transactions and Texas SET proposed and adopted changes can be found below.

IN THIS SECTION

[Texas SET Swimlanes](#)

Find the current swimlanes, which outline the business process lifecycle for retail transactions.

[Texas Standard Electronic Transaction Issues](#)

Locate current and past Texas SET issues, including those new, under review or closed.

[Texas SET Change Controls](#)

New and Pending (Under Review) Change Controls, those that have been Approved for future Texas SET versions, as well as all Withdrawn and already Implemented Change Controls.

[Current Texas SET Implementation Guides](#)

Find the latest Texas SET guides, which provide information on the electronic transactions in the Texas retail electric market.

KEY DOCUMENTS

[TX SET V4.0 Redlines](#)

Redlines created April 2017 for Change Controls 2017-805 and 2017-806
(Apr 18, 2017 – zip – 1.7 MB)

[Change Control Log](#)

Related Content

On this site

[Texas SET Working Group](#)

[Market Coordination Team
for Texas SET Version
Release 4.0](#)

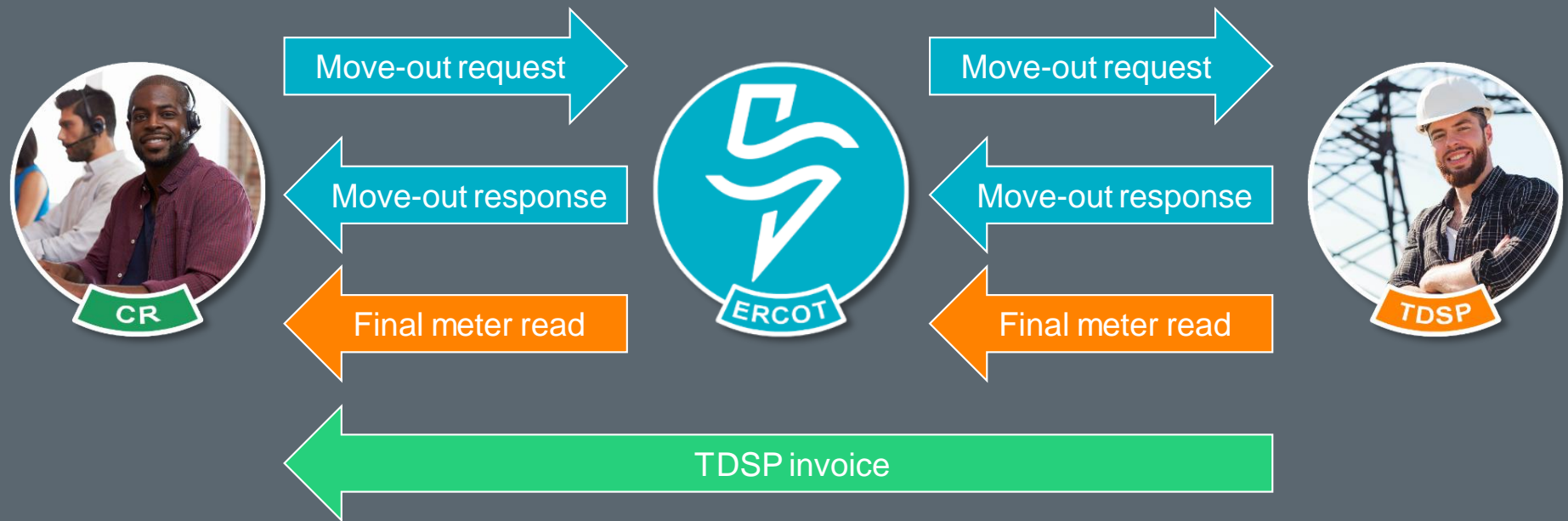
Transaction Families	
Request, Response, Maintenance for Enrollments, Drops, Switches, Maintenance & Request Consumption	814_XX
Interval, Non Interval, Reads & Usage Data Historical and Monthly Activity	867_XX
Reject Response to 810 or 867 Data	824_XX

Transaction Families	
Statement, Settlement, Wire Charge Invoices	810_XX
Payment and Advice through Bank	820_XX
Maintenance Service Order - Work Orders, Meter Config. Details, Outage Notification	650_XX
Reject Response to 810 or 867 Data	824_XX

More detailed description in Protocol Section 19

Market Process

A series of retail transactions that must occur in a particular sequence





[About ERCOT](#)

[Services](#)

[Committees and Groups](#)

[Market Rules](#)

[Market Information](#)

[Grid Information](#)

[Home](#) > [Market Rules](#) > [Market Guides](#) > [Texas SET Guides](#) > [Texas SET Swimlanes](#)

[Protocols - Nodal](#)

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[Load Profiling Guide](#)

[Nodal Operating Guide](#)

[Planning Guide](#)

[Resource Registration Glossary](#)

[Retail Market Guide](#)

[Settlement Metering Operating Guide](#)

[Texas SET Guides](#)

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 February 2017](#)

TX SET flow documentation for consolidated billing, remittance and dual billing
(Feb 22, 2017 – zip – 41.6 KB)

[Continuous Service Agreement Scenarios February 2017](#)

TX SET flow documentation for beginning and ending continuous service agreements (CSAs)
(Feb 22, 2017 – zip – 352.2 KB)

[Customer Move In Scenarios June 2012](#)

TX SET flow documentation for handling Move In changes and problems
(May 17, 2016 – zip – 188.3 KB)

[Customer Move Out Scenarios February 2017](#)

TX SET flow documentation for handling Move Out changes and problems
(Feb 22, 2017 – zip – 143.1 KB)

[Customer Switch Scenarios June 2012](#)

TX SET flow documentation for handling customer switch request
(May 17, 2016 – pdf – 15.9 KB)

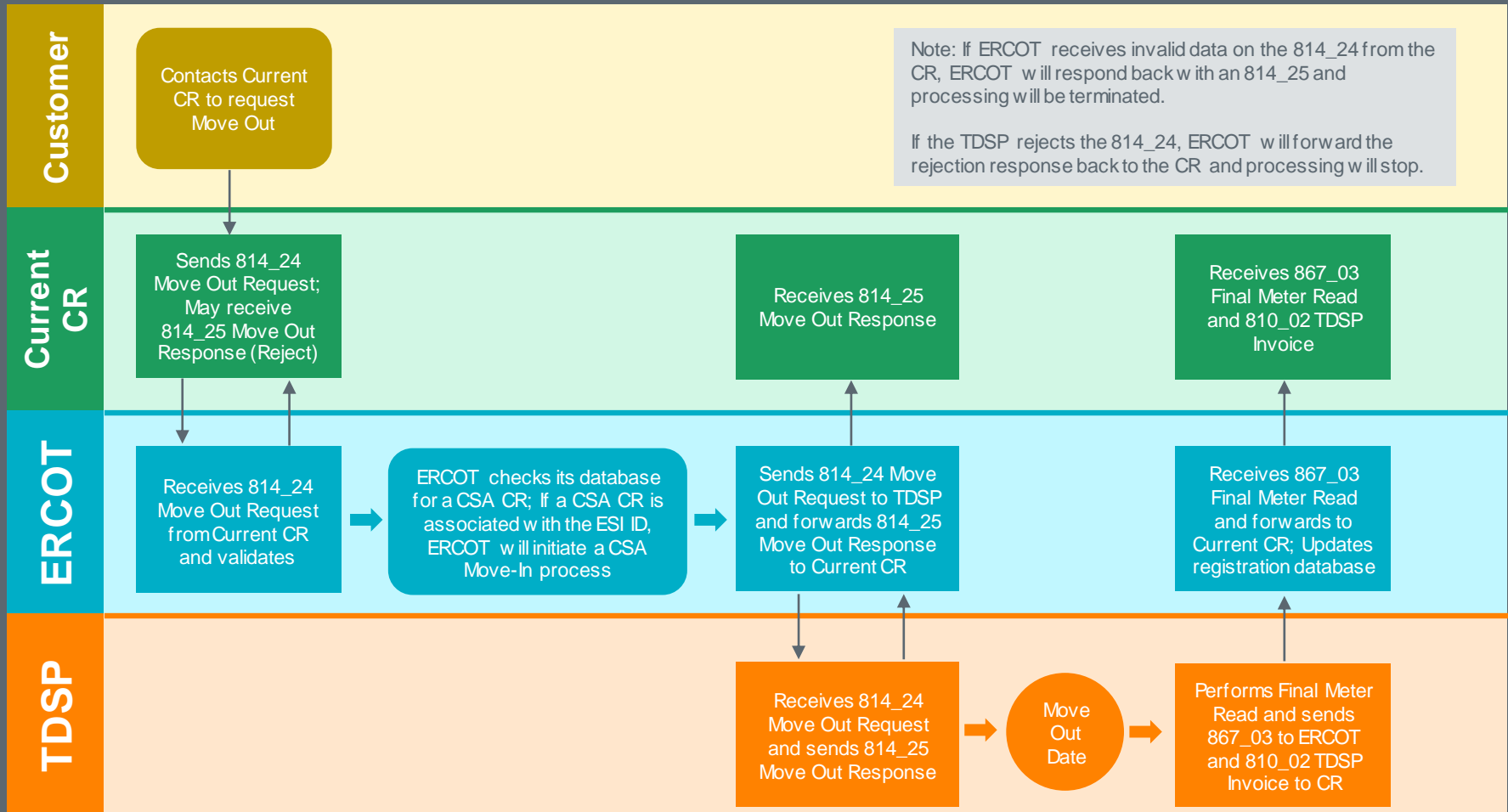
[Disconnect Reconnect Non Pay Scenarios February 2017](#)

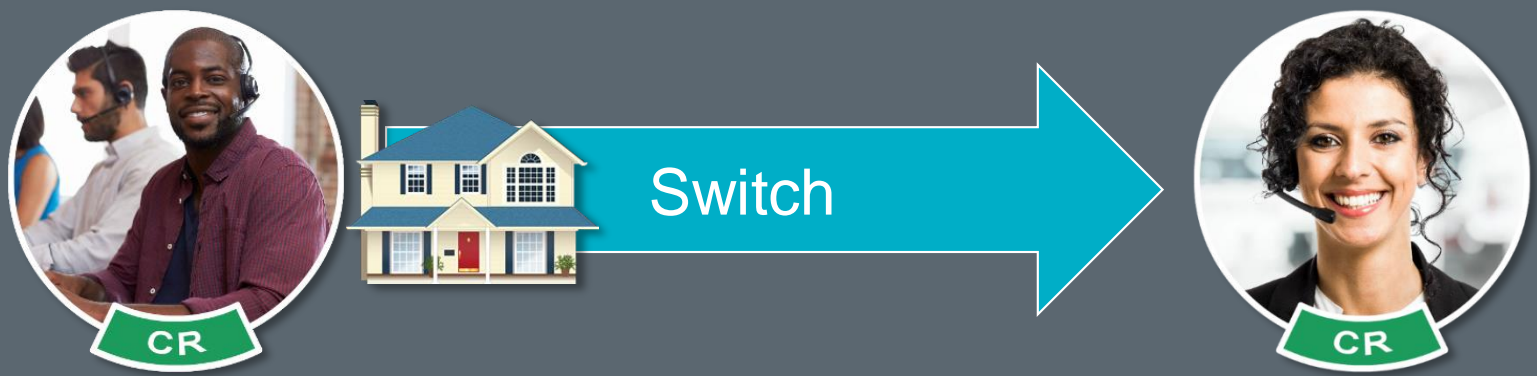
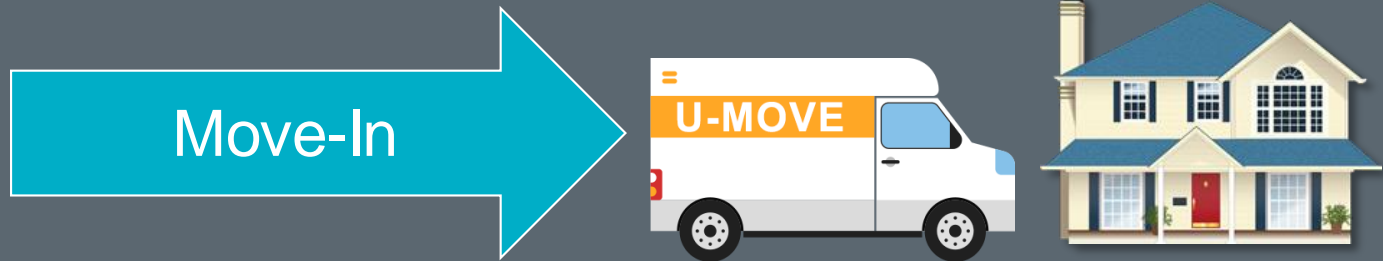
TX SET flow documentation for Disconnect and Reconnect for NonPay
(Feb 22, 2017 – zip – 131.9 KB)

Move Out

Scenario: Customer Initiated Move Out No CSA Associate with ESI ID

Transactions: 814_24, 814_25, 867_03, 810_02







Customer Decides to Select a New CR

- ?** Who does the customer call
- ?** What does the CR do
- ?** Who has to know ... Who does this
- ?** What does the TDSP do
- ?** Does anything else need to be done



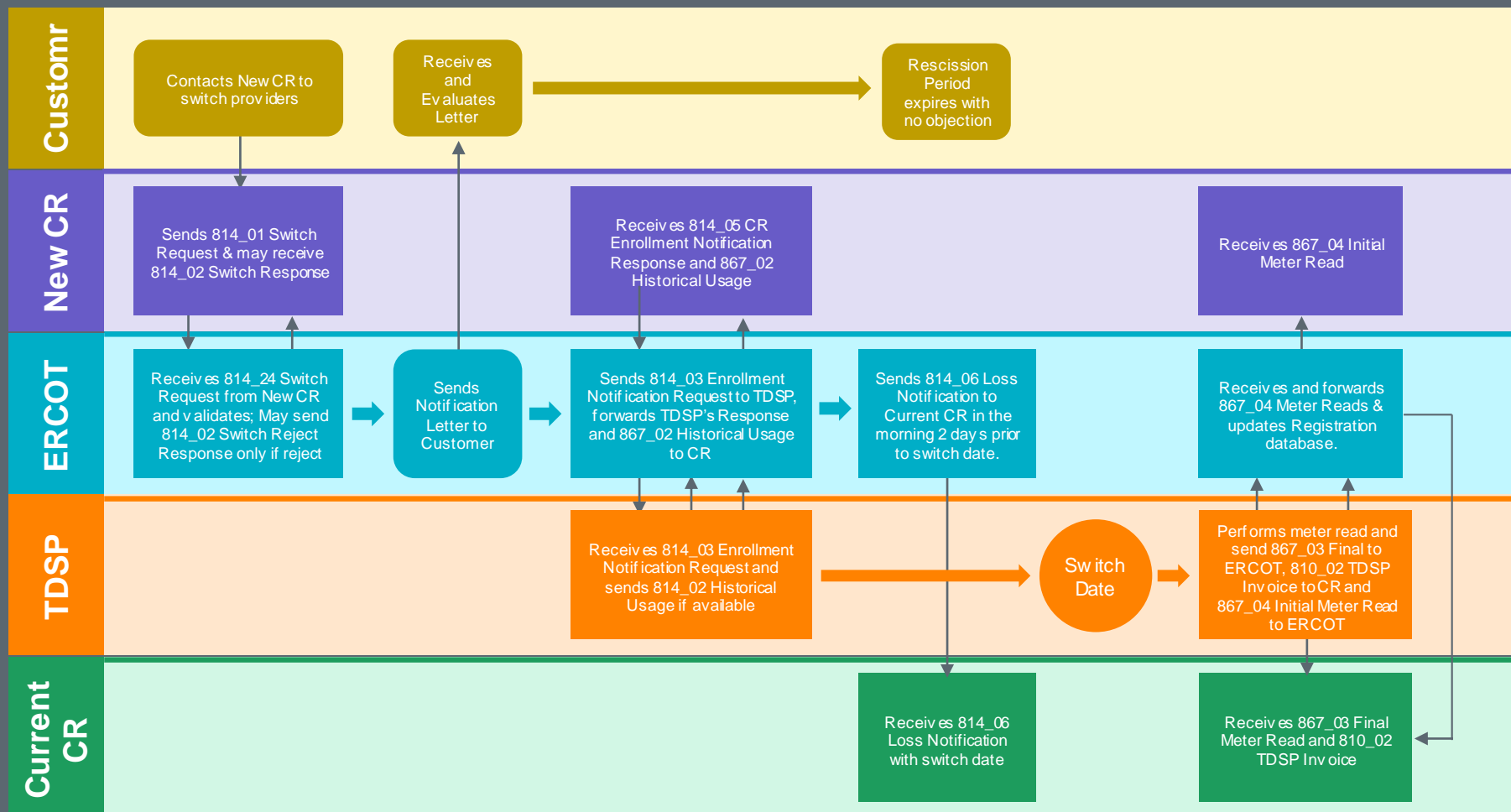
		From				To			
Transaction Type		ERCOT	Old CR	TDSP	New CR	ERCOT	Old CR	TDSP	New CR
Switch Request									
Enrollment Notification Request									
Enrollment Notification Response									
CR Enrollment Notification Response									
Loss Notification									
Final Usage									
Initial Meter Read									



Switch

Scenario: Customer Switch, No Customer Objection

Transactions: 814_01, 814_02 (Reject Only), 814_03, 814_04, 814_05, 814_06, 867_02, 867_03, 810_02, 867_04



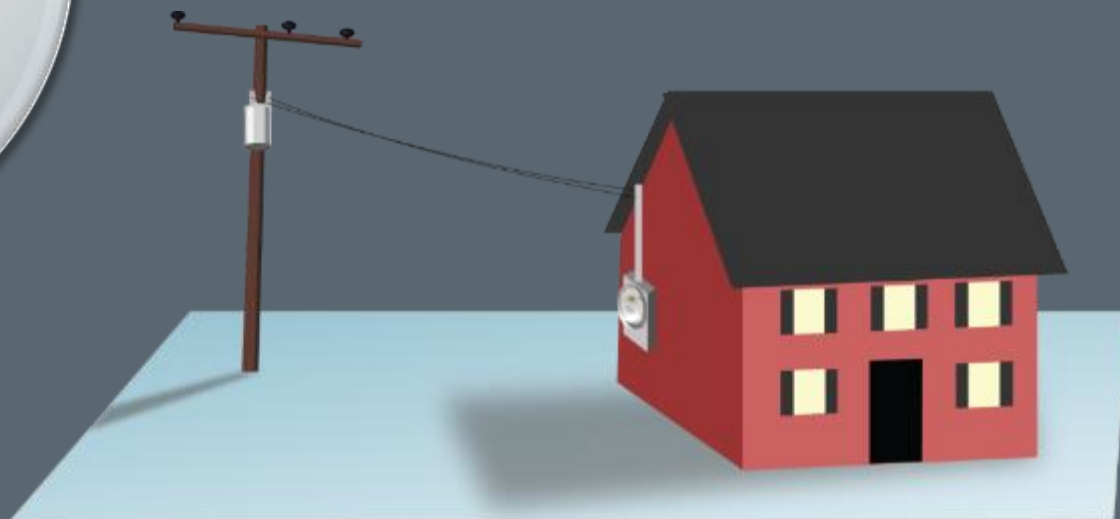


Module 4 Metering



Meter:

A device that measures electrical usage over a period of time.



What are we measuring?

WATTS = (Current) x (Voltage)

Ex: 100 W Light bulb

Energy = Watt-Hours

Ex: (10) x (100 W Light bulbs for 1 Hour)
= 1000 WHr (or 1 kWh)

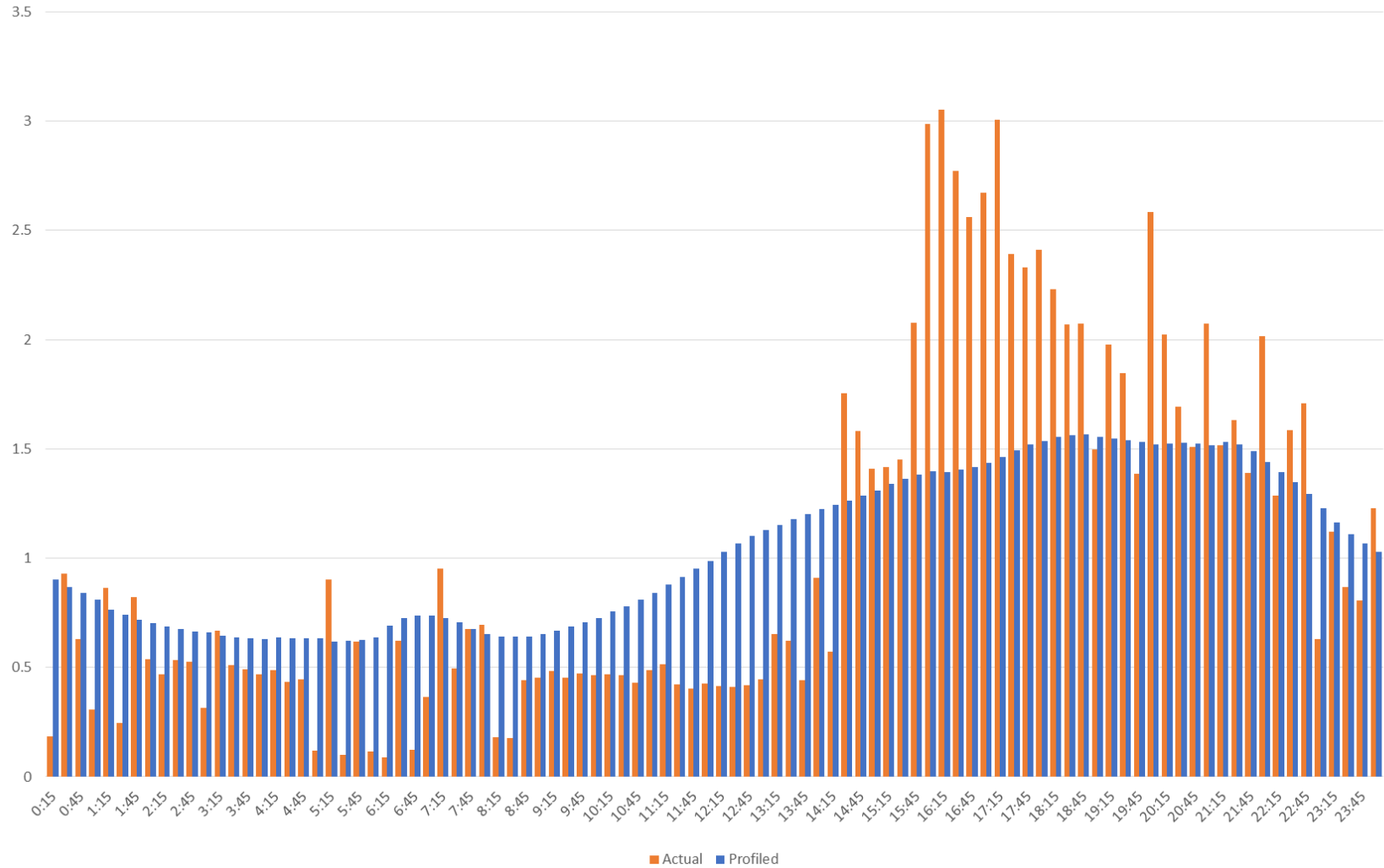


Non-IDR/Scalar/Analog Meter Characteristics

- “Traditional” Meter
- Scalar measurement for an entire month
- Data must be shaped for Wholesale Settlement
- Manual field activities



Profile vs Actual





Non-Interval Data

- Usage is recorded in ~30 day intervals
- Data must be shaped for 15 minute Wholesale Settlement

VS



Interval Data

- Usage is recorded in 15 minute intervals (96 intervals per 24 hrs)
- Data is already shaped for 15 minute Wholesale Settlement

Characteristics

- Wholesale Settlement ready
- Remotely read



AMSR (≤ 200 amp)

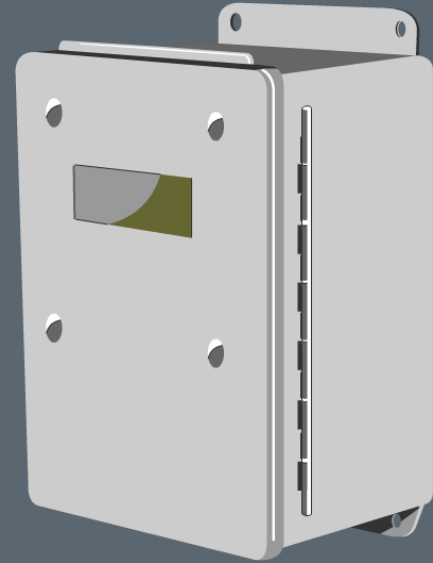
Remote connect /
disconnect

AMSM

Manual connect /
disconnect

Interval Data Recorder (IDR) Meter Characteristics

- Wholesale Settlement ready
- Typically reported monthly
- Predominantly on large customers
> 700 kW/kVA demand
- May require manual field activities



AMS benefits to the market

- 99.5% competitive load using interval data
- REP and Customer can see actual usage
- More accurate CR Settlement with QSE

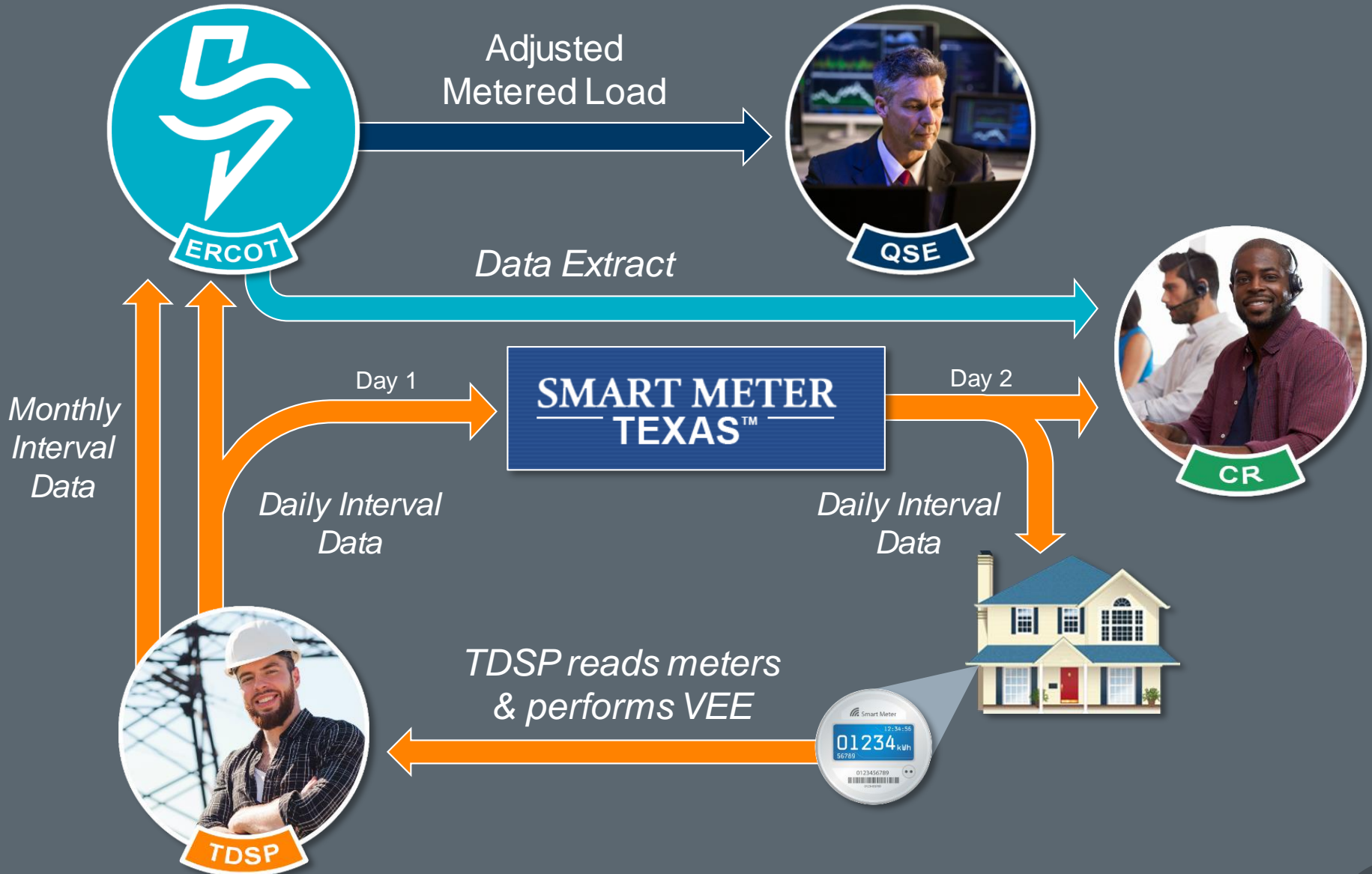


AMS benefits to the market

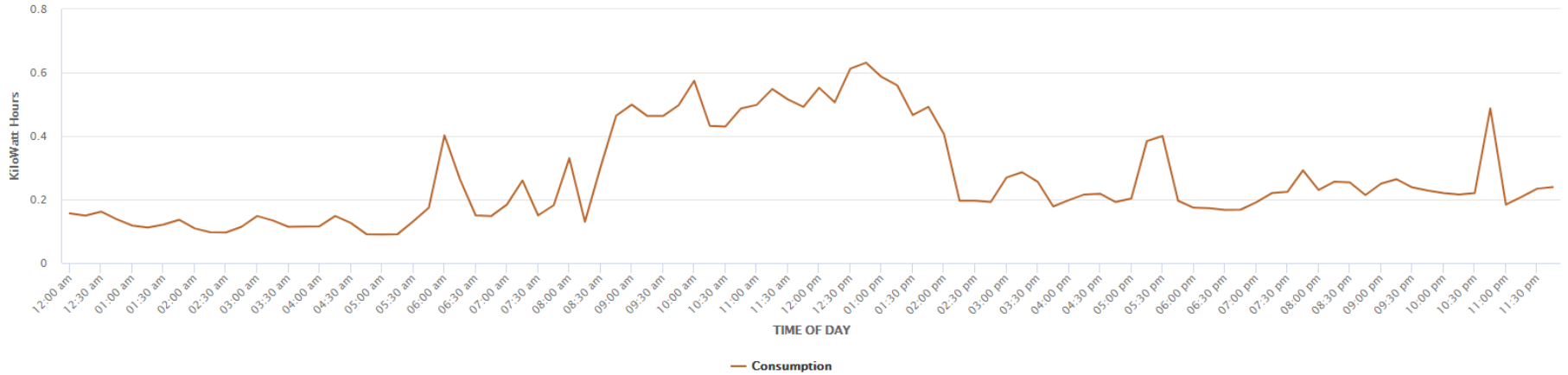
- 73% actual data used on Initial Settlement
- Faster execution of retail market processes



<u>Enrollment type</u> Initiating Transaction	<u>AMS Remote</u> (AMSR)	<u>AMS Manual</u> (AMSM)	<u>Non-AMS</u>
Move-In 814_16	Same Day	2 Business Days	2 Business Days
Standard Switch 814_01	Same Day	Same Day	Within Next 4 Business Days
Self Selected Switch 814_01	Same Day	Same Day	At Least 2 Business Days
Move-Out 814_24	Same Day	2 Business Days	2 Business Days



Energy Data Graph (15 Minute Intervals) - Kilowatt Hours for 03/29/2021



Energy Data Table (15 Minute Intervals) - Kilowatt Hours for 03/29/2021

Consumption = Consumption in excess of Generation ; Surplus Generation = Generation in excess of Consumption

[View in Excel](#)

Start Time	End Time	Consumption(Kwh)	Act./Est.	Surplus Generation(Kwh)	Act./Est.
01:00 am	01:15 am	0.118	Actual	0	NA
01:15 am	01:30 am	0.112	Actual	0	NA
01:30 am	01:45 am	0.121	Actual	0	NA
01:45 am	02:00 am	0.136	Actual	0	NA
02:00 am	02:15 am	0.109	Actual	0	NA
02:15 am	02:30 am	0.097	Actual	0	NA
02:30 am	02:45 am	0.096	Actual	0	NA
02:45 am	03:00 am	0.114	Actual	0	NA
03:00 am	03:15 am	0.148	Actual	0	NA
03:15 am	03:30 am	0.134	Actual	0	NA
03:30 am	03:45 am	0.114	Actual	0	NA
03:45 am	04:00 am	0.115	Actual	0	NA

Other AMS Benefits



Allows for pre-pay programs



Allows for demand response



Allows for Time-of-Use rate offerings



Improved service reliability



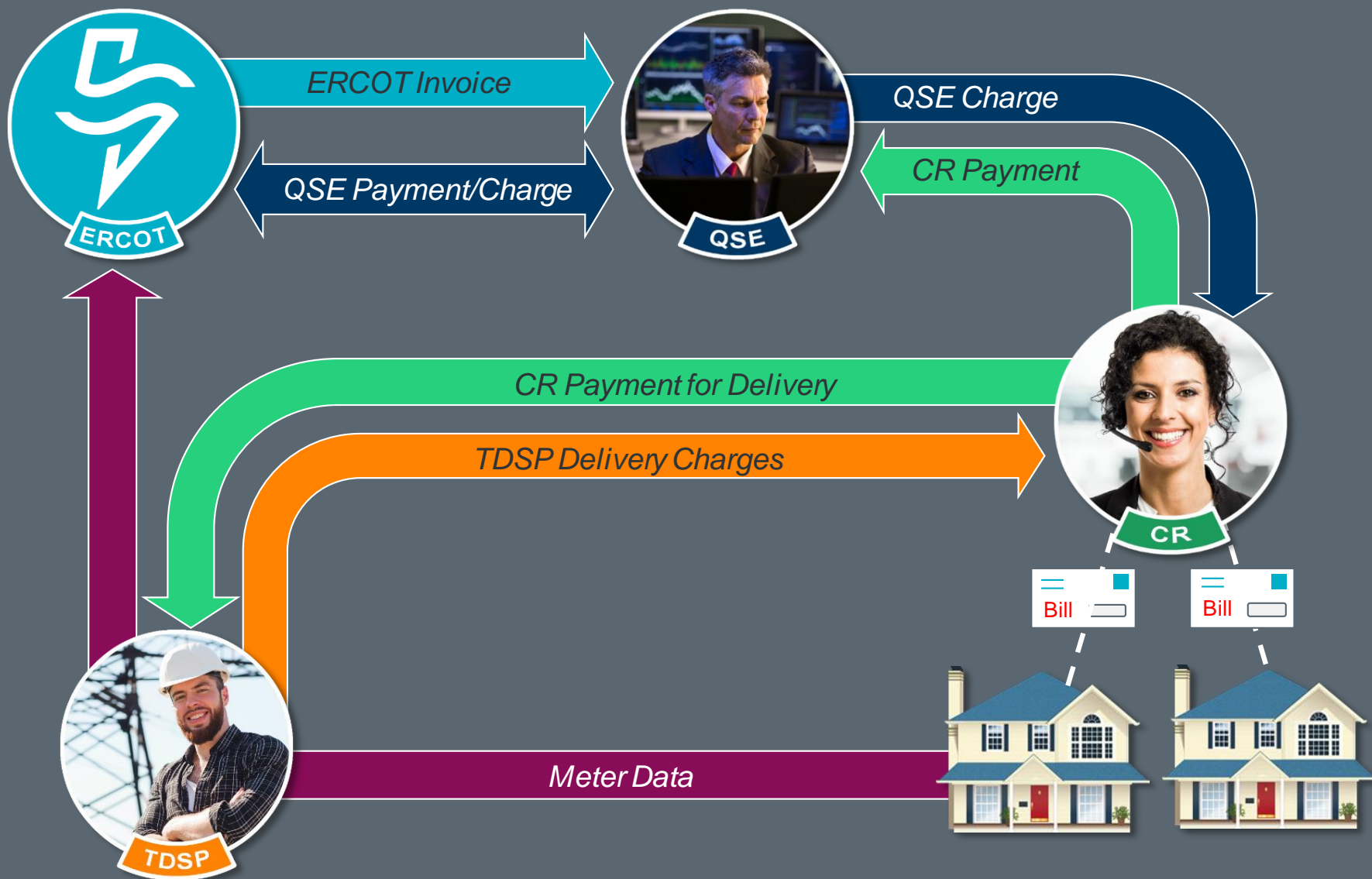
Early detection of faulty meters or tampering



Module 5

Settlement of Retail Load





ERCOT Settles with QSE based on Adjusted Metered Load



Adjusted Meter Load

Unaccounted for Energy

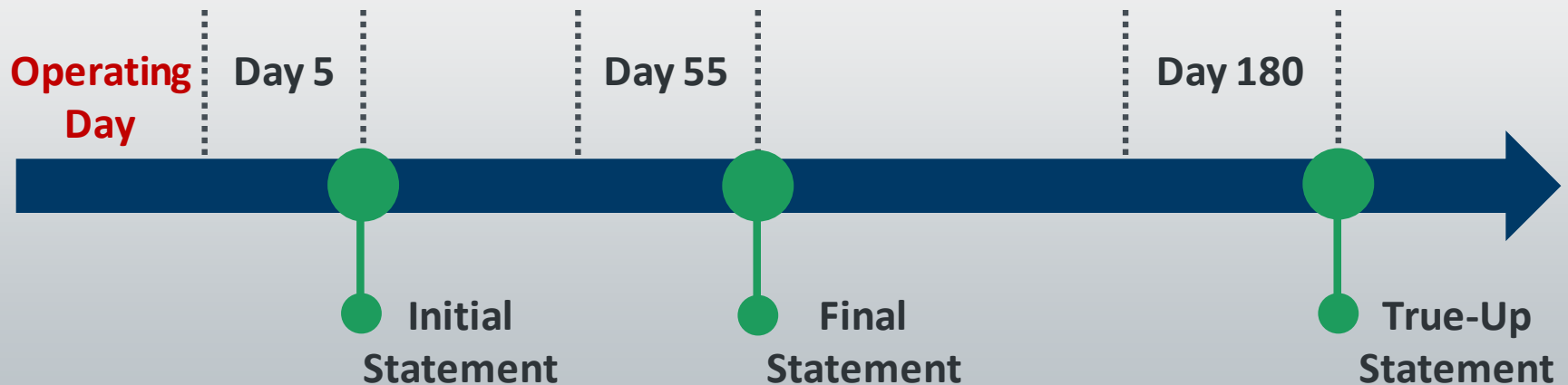
Transmission Loss Factors

Distribution Loss Factors

Aggregation by QSE and LSE

- Each Operating day is settled a minimum of three times
- Most settlement is transacted on the Initial Settlement

ERCOT Real-Time Settlements Timeline





Important Questions



Module 6

Data Transparency & Availability





Also available
on ercot.com

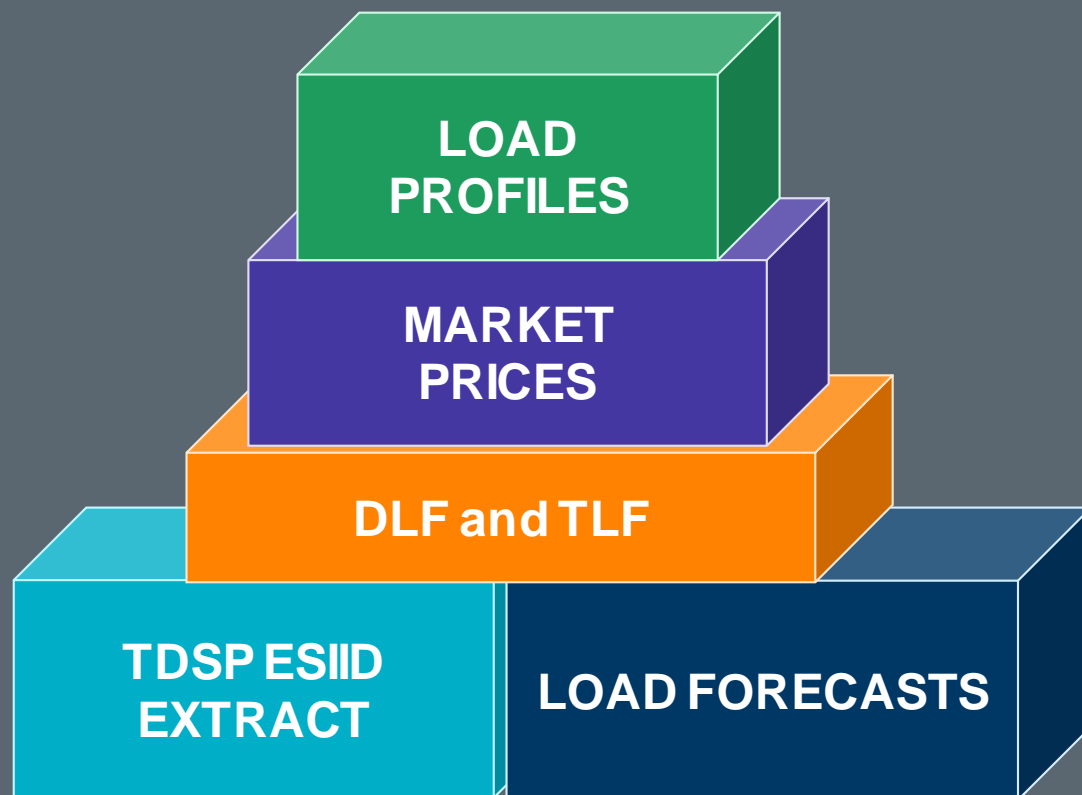


Available to
all Market
Participants

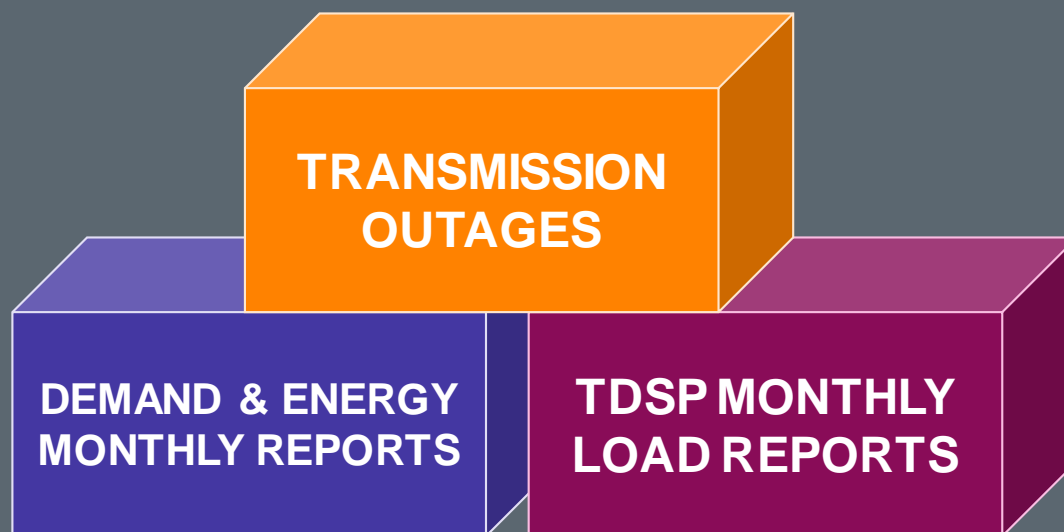


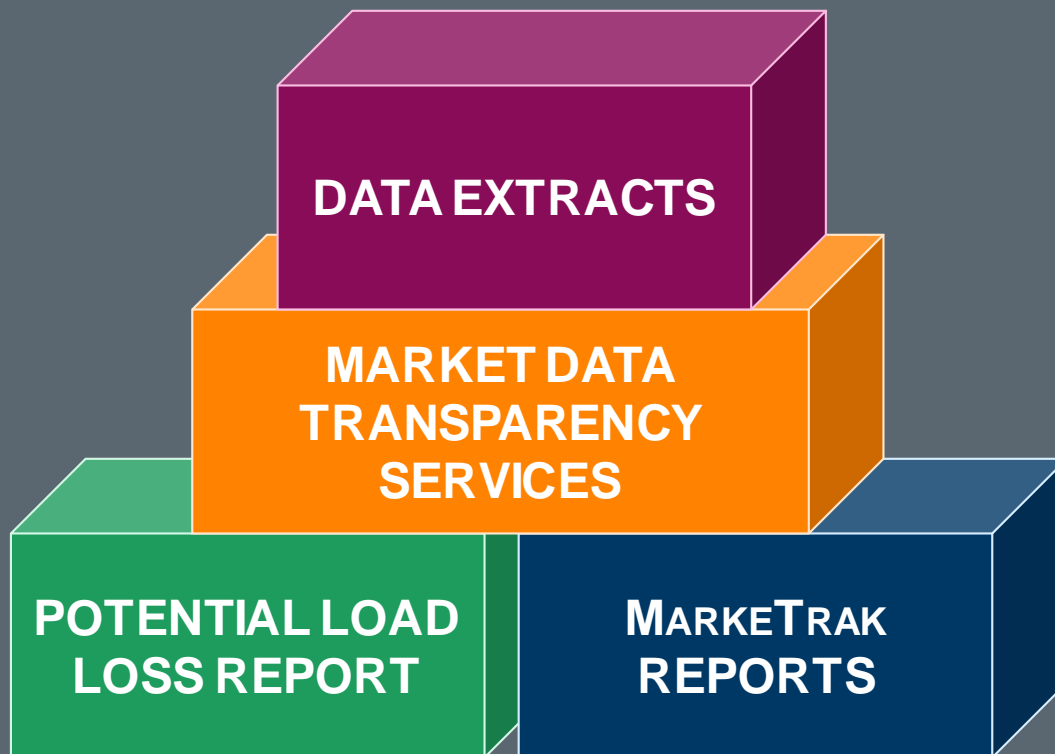
Only available
to a specific
Market
Participant





Public Data is also available on ercot.com



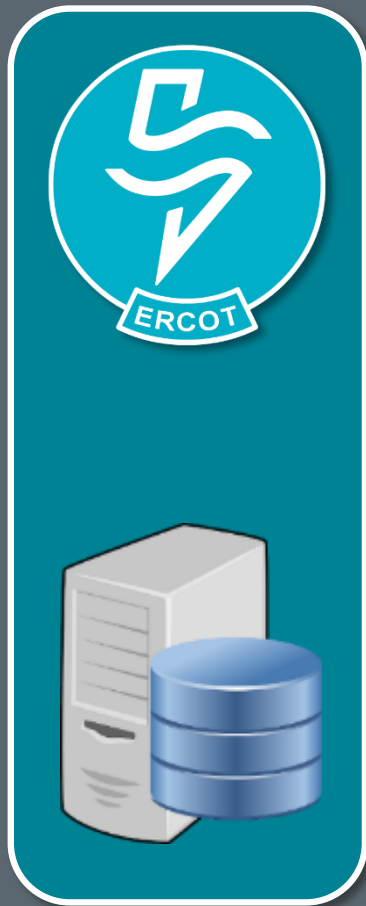


ESIID Service History and Usage Extract

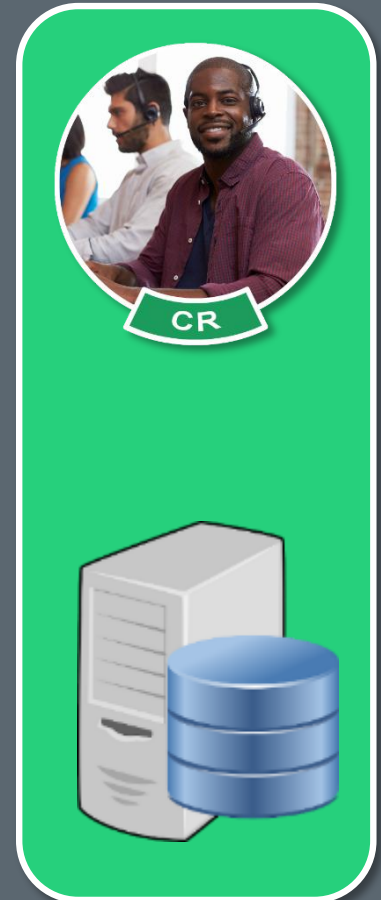
- ESI ID Relationships and Characteristics
- Provides data needed to perform shadow settlements of Retail load.
 - Supplemental IDR Required Interval Data Extract
 - Supplemental AMS Interval Data Extract



See ERCOT
courses on MIS and
Intro to Extracts



CSV or XML





1. Construct a Database

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About ERCOT | **Services** | Committees and Groups | Market Rules | Market Information | Grid Information

Client Services

Market Participant Communications

Programs

Projects

Registration and Qualification

Service Level Agreements

Training

Market Data Transparency

Market Data Transparency

As a service to the market, ERCOT publishes helpful guides on how to use data extracts and applications. For descriptions of ERCOT extracts and reports, please refer to the [ERCOT Market Information List \(EMIL\)](#).

Launch ERCOT Market Information List (EMIL)

IN THIS SECTION

DDLs
Data Definition Language (DDL) files are provided to Market Participants from ERCOT in order to create a database that can be used to store the data received in ERCOT extracts into their own environments.

User Guides
Find helpful ERCOT guides on how to use various data extracts and applications.

Digital Certificate Security Information
This page contains root and intermediate certificates and public key information needed to interface with ERCOTs Test and Production environments.

XSDs
XML Schema Definitions (XSD) files are used to define extracts provided in an Extensible Markup Language (XML) format.

KEY DOCUMENTS

[MDT Missed Posting Archive 2021](#)



2. Subscribe

The screenshot shows the ERCOT website's 'Application Library' page. The page features a navigation menu at the top with links for 'About ERCOT', 'Services', 'Calendar', 'Committees', and 'Market Rules'. A 'Market Information System' button is also present, along with search options for 'Data Products' and 'Notices'. On the left, a sidebar menu includes 'Home', 'Data Products', 'Notices', and 'Applications' (which is highlighted). The main content area is titled 'Application Library' and contains a list of applications. The 'Extract Subscriber' application is highlighted with a yellow border. It is described as a 'Certified' application that allows users to 'Subscribe/unsubscribe to/from specific certified retail and s...'. Other applications include 'CRR MOI' (Internal Congestion Revenue Rights), 'Find ESIID' (Find Electric Service Identifier), and 'Market Data Transparency Web Services' (Self-service data request access).

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About ERCOT Services Calendar Committees Market Rules

Market Information System

Search Data Products | Search Notices

Home
Data Products
Notices
Applications

Application Library

These are the applications available based on your Digital Certificate's permissions.

- CRR MOI** (Certified)
Internal Congestion Revenue Rights (CRR) Market Operator Inte...
- Extract Subscriber** (Certified)
Subscribe/unsubscribe to/from specific certified retail and s...
- Find ESIID** (Secure)
Find Electric Service Identifier (ESI ID) information.
- Market Data Transparency Web Services** (Certified)
Self-service data request access for a subset of AMS, Service... [Help](#)



3. Download and import data

ercot **Extract Subscriber** ?

Welcome Current as of: 01/07/2020

Company: ENERGY SERVICES LLC (LSE) - 999999999

Extract Name	Subscribe	Unsubscribe	Output Type
Default Profile ESI ID Report			
DAILY	<input type="checkbox"/>		CSV
ESI ID Service History and Usage Extract			
DAILY	Subscribed	<input type="checkbox"/>	CSV
Load Estimation Counts Report - Certified			
DAILY	Subscribed	<input type="checkbox"/>	CSV
Mapping Status Reject Report			
DAILY	Subscribed	<input type="checkbox"/>	CSV
Potential Load Loss Report			
DAILY	Subscribed	<input type="checkbox"/>	CSV
Real Time Market Consolidated Operating Day Extract			
DAILY	Subscribed	<input type="checkbox"/>	CSV



[About ERCOT](#)[Services](#)[Calendar](#)[Committees](#)[Market Rules](#)[Market Information System](#)[Search Data Products](#) | [Search Notices](#)[Home](#)[Data Products](#)[Notices](#)[Applications](#)

Application Library

These are the applications available based on your Digital Certificate's permissions.



CRR MOI

Certified

Internal Congestion Revenue Rights (CRR) Market Operator Inte...



Extract Subscriber

Certified

Subscribe/unsubscribe to/from specific certified retail and s...



Find ESID

Secure

Find Electric Service Identifier (ESI ID) information.



Market Data Transparency Web Services

Certified

Self-service data request access for a subset of AMS, Service...

Help

Provides Similar Information on Ad Hoc Basis


ercot

Data Request Services Status

- Request Information

Provide ESIID account records	?
Provide ESIIDs I own for a trade date	?
Provide Non-IDR transaction data for ESIIDs I own	?
Provide ESIIDs where AMS interval data not loaded for a trade date	?
Provide IDR usage data for ESIIDs I own (IDR required)	?
Provide all extract records for ESIID Service History and Usage extract	?
Provide AMS interval data for a trade date	?

+ Transaction Information


About ERCOT Services Calendar Committees Market Rules LOG IN →
Search Data Products | Search Notices

- Home
- Data Products
 - Markets
 - Grid
 - Compliance & Disclosure
 - Group Reports
 - Services
- Notices
- Applications

ERCOT Market Information List (EMIL)


EMIL shows all ERCOT market products required to be supplied by Protocols or other binding documents (OBDs) and details about each product, including the Report Type ID, target audience, MIS posting location, and required access roles. You can filter the products using the buttons below. You can also enter keywords in the search bar. Items that can be searched using keywords are the Product Name, Product Description, EMIL ID, Report Type ID, or applicable Rules.

Availability Audience Channel Posting Type Status

Keyword 

To search for an exact keyword string, enclose search terms in quotation marks. Example: "State Estimator Load Report"

Applied Filters: None Applied

3,001 Products  Export the full EMIL

25 per page Previous 1 2 3 4 5 Next

2-Day Ancillary Services Reports

This report will contain all 48 Hour disclosure data related to DAM. The following individual files are included in the report: NP3-959-EX 48-hour Aggregate AS Offers; NP3-960-EX 48-hour Self-Arranged AS; NP3-961-EX 48-hour Cleared DAM AS (previously named 48 Hour Ancillary Services Reports)

Search for Related Topic(s): [Day-Ahead Market\(DAM\)](#) | [Ancillary Services](#) | [Market Results](#)

2-Day DAM Bids and Offers Reports

This report will contain all 48 Hour disclosure data related to DAM. The following individual files are included in the report: NP3-954-EX 48-hour Total Cleared Energy Bids and Energy-Only Offers; NP3-955-EX 48-hour Total Cleared Energy Bids and Energy-Only Offers by Disclosure Areas; NP3-962-EX 48-hour Point-to-Point Obligation Bids; NP3-963-EX 48-hour Point-to-Point Obligation Bids by Disclosure Areas (previously named 48 Hour DAM Bids and

LOG IN

Access additional information by authenticating with your digital certificate.

Log In

Help



What does a CR do with all this data?



Module 7

Issue Resolution



Retail responsibilities

- Investigate customer issues
- Maintain customer records
- Verify billing accuracy





**Missing
Transactions**

**Usage &
Billing Issues**



**Inadvertent
Gains &
Losses**

Switch Hold



**What tools are available to identify
& resolve issues?**

Market Participants turn to ...

MarkeTrak

The Market issue resolution tool



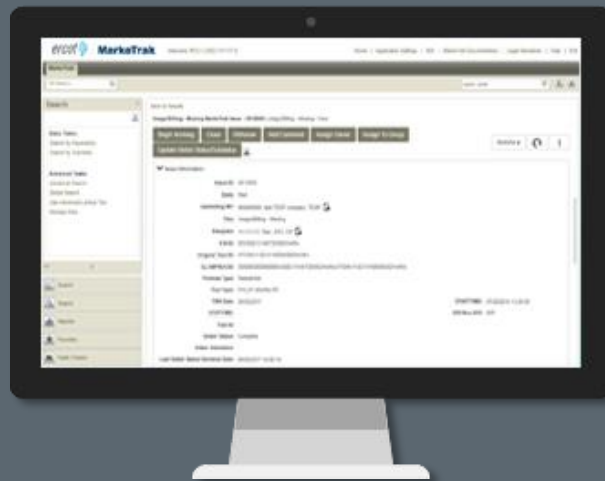
[About ERCOT](#)[Services](#)[Calendar](#)[Committees](#)[Market Rules](#)[Market Information System](#)[Search Data Products](#) | [Search Notices](#)[Home](#)[Data Products](#)[Markets](#)[Grid](#)[Compliance & Disclosure](#)[Group Reports](#)[Services](#)[Notices](#)[Applications](#)[Day-Ahead Market](#)[Real-Time Market](#)[CRR](#)[Retail](#)[Load Profiling](#)[Metering](#)[Data Aggregation](#)[Settlements](#)

Applications & Reference

[Create Enrollment](#)Certified[Create Move In](#)Certified[Create Move Out](#)Certified[Data Transport Guides](#)[Delete CSA](#)Certified[Establish CSA](#)Certified[Find ESI ID](#)Secure[Find Transactions](#)Certified[MarkeTrak](#)Certified[Market Data Transparency Web Services](#)Certified

Goals of MarkeTrak

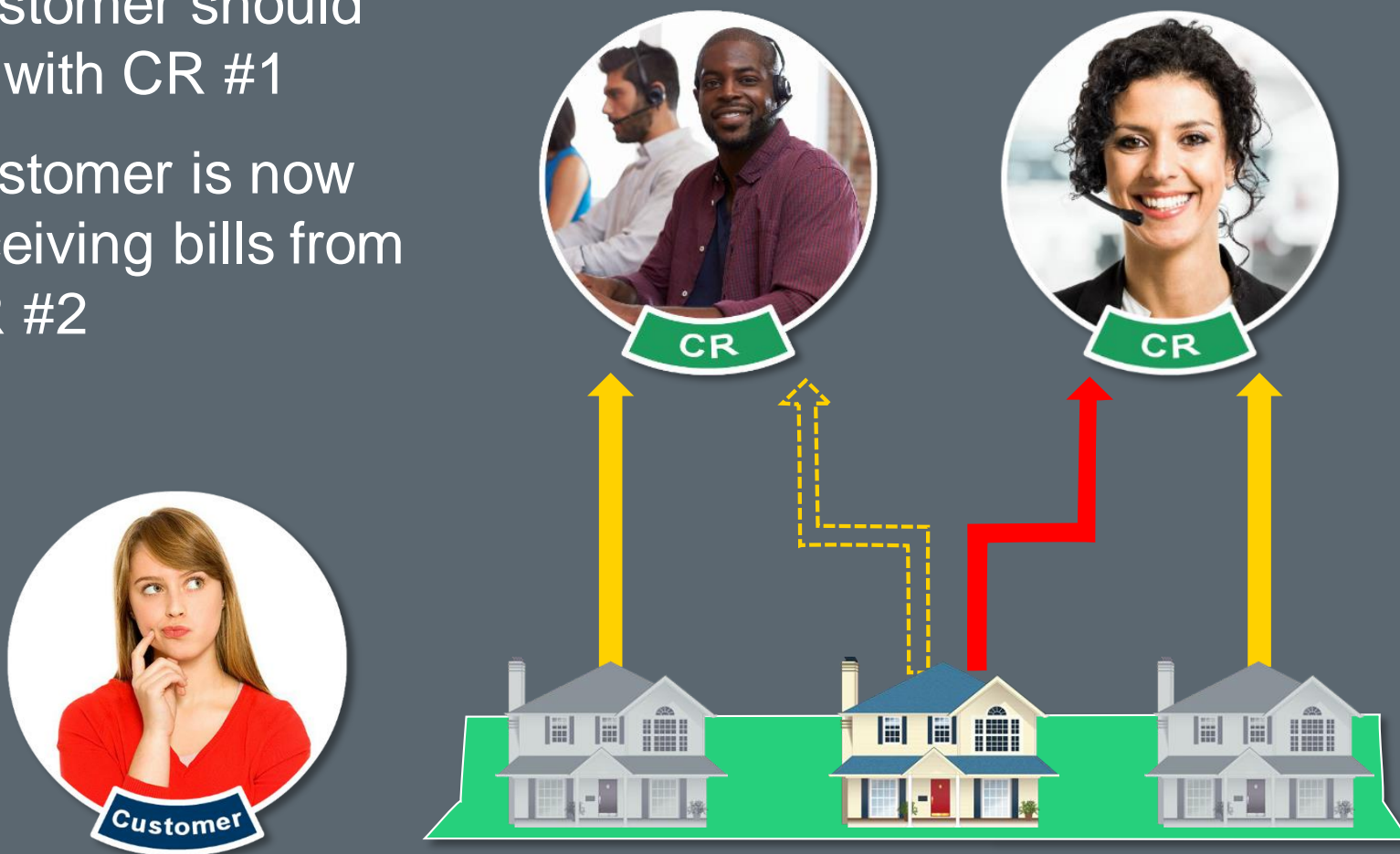
- Facilitate resolution of issues between Market Participants
 - Discovery and visibility
 - Tracking and status
- Enable historical reporting of issues





What Happened?

- Customer should be with CR #1
- Customer is now receiving bills from CR #2



[About ERCOT](#)[Services](#)[Calendar](#)[Committees](#)[Market Rules](#)[Market Information System](#)[Search Data Products](#) | [Search Notices](#)[Home](#)[Data Products](#)[Markets](#)[Grid](#)[Compliance & Disclosure](#)[Group Reports](#)[Services](#)[Notices](#)[Applications](#)[Day-Ahead Market](#)[Real-Time Market](#)[CRR](#)[Retail](#)[Load Profiling](#)[Metering](#)[Data Aggregation](#)[Settlements](#)

Applications & Reference

- [Create Enrollment](#) Certified
- [Create Move In](#) Certified
- [Create Move Out](#) Certified
- [Data Transport Guides](#)
- [Delete CSA](#) Certified
- [Establish CSA](#) Certified
- [Find ESI ID](#) Secure
- [Find Transactions](#) Certified
- [MarkeTrak](#) Certified
- [Market Data Transparency Web Services](#) Certified



ESI ID Summary

[Print Summaries](#)

ESI ID	Found	Status	Street	Address Line 2	City	ZIP	CSA	REP of Record	Open Svc Ord	Premise Type	POLR Customer Class	Select Dwnld
ESIID100563425MHOST	✓	A	728 Pacman Blvd		Pflugerville	78660	No	No	No	RES	RES	<input type="checkbox"/>

✓ Selected ESI ID

Select All

[Download Summary](#)

ESI ID Detail: ESIID100563425MHOST

[View Transactions](#)[Print Details](#)

Address 728 Pacman Blvd
Pflugerville, TX 78660

Current Status	Active	Utility Name	ERCOTTEST_TDSP	ESI ID Eligibility Date	Oct 27, 2010
Effective Date	Sep 11, 2010	DUNS #	666666666	ESI ID Start Date	Sep 11, 2010
Premise Type	Residential	Metered Flag	true	ESI ID Create Date	Aug 28, 2010
POLR Customer Class	Residential	Meter Read Cycle	21	ESI ID Retired Date	
Settlement AMS Indicator	false	Power Region	ERCOT		
Switch Hold	N	Station Name	DEVILS HILL		
TDSP AMS Indicator	AMSR	Station Code	DEVIHI		



CR





Transaction Summary for ESI ID: ESIID100545313MHOST

Print Summaries



REP of Record: Jul 08 2019

- + Switch
- + Move In
- + 1st Unknown 814_20 Process





Transaction Summary for ESI ID: ESIID100563425MHOST

[Download Results](#)[Print Summaries](#)

Switch

Status: **Complete** Original Trxn #: OTIDSW1100563427MHOST

Type	From	To	ERCOT Time Stamp ▲	Trxn Status	Key Date	Retry Status	Duplicate
814_01	LSE	ERCOT	Aug 28, 2019 0132 PM	Accept			No
814_03	ERCOT	ERCOTTEST_TDSP	Aug 28, 2019 0132 PM	Accept	Aug 28 2019		No
814_04	ERCOTTEST_TDSP	ERCOT	Aug 28, 2019 0134 PM	Accept	Aug 28 2019		No
814_05	ERCOT	LSE	Aug 28, 2019 0134 PM	Accept	Aug 28 2019		No
814_06	ERCOT	ERCOTTEST_LSE_1	Aug 28, 2019 0135 PM	Accept	Aug 28 2019		No
867_04	ERCOTTEST_TDSP	LSE	Aug 28, 2019 0137 PM	Accept			No

Details: 814_06

[Print Details](#)

From	ERCOT	To	ERCOTTEST_LSE_1
DUNS #	183529049	DUNS #	111111111
Request Submitted	20190828	Status/Action	Request Delete
Trxn Ref #	SBSW201908281335131WP4SF7	Reason	CHA
Orig Trxn Ref #	OTIDSW1100563427MHOST		
Service Period End	20190828		





ESI ID Summary [Print Summaries](#) ?

ESI ID	Found	Status	Street ▲	Address Line 2	City	ZIP	CSA	REP of Record	Open Svc Ord	Premise Type	POLR Customer Class	Select Dwnld
ESIID100563425MHOST	✓	A	728 Pacman Blvd		Pflugerville	78660	No	Yes	No	RES	RES	<input type="checkbox"/>

✓ Selected ESI ID Select All [Download Summary](#)

ESI ID Detail: ESIID100563425MHOST [View Transactions](#) [Print Details](#) ?

REP of Record as of: Aug 28, 2019

Address **728 Pacman Blvd**
Pflugerville, TX 78660

Current Status	Active	Utility Name	ERCOTTEST_TDSP	ESI ID Eligibility Date	Oct 27, 2010
Effective Date	Sep 11, 2010	DUNS #	666666666	ESI ID Start Date	Sep 11, 2010
Premise Type	Residential	Metered Flag	true	ESI ID Create Date	Aug 28, 2010
POLR Customer Class	Residential	Meter Read Cycle	21	ESI ID Retired Date	
Settlement AMS Indicator	false	Power Region	ERCOT		
Switch Hold	N	Station Name	DEVILS HILL		
TDSP AMS Indicator	AMSR	Station Code	DEVIHI		





Transaction Summary for ESI ID: ESIID100545313MHOST

Print Summaries



REP of Record: Aug 28 2019

- + Switch
- + Move In
- + 1st Unknown 814_20 Process





Transaction Summary for ESI ID: ESIID100563425MHOST

[Download Results](#)[Print Summaries](#)

REP of Record: Aug 28 2019

Switch

Status: Complete Original Trxn #: OTIDSW1100563427MHOST

Type	From	To	ERCOT Time Stamp ▲	Trxn Status	Key Date	Retry Status	Duplicate
814_01	ERCOTTEST_LSE_2	ERCOT	Aug 28, 2019 0132 PM	Accept			No
814_03	ERCOT	ERCOTTEST_TDSP	Aug 28, 2019 0132 PM	Accept	Aug 28 2019		No
814_04	ERCOTTEST_TDSP	ERCOT	Aug 28, 2019 0134 PM	Accept	Aug 28 2019		No
814_05	ERCOT	ERCOTTEST_LSE_2	Aug 28, 2019 0134 PM	Accept	Aug 28 2019		No
814_06	ERCOT	LSE	Aug 28, 2019 0135 PM	Accept	Aug 28 2019		No
867_04	ERCOTTEST_TDSP	ERCOTTEST_LSE_2	Aug 28, 2019 0137 PM	Accept			No

Details: 814_01

[Print Details](#)

From	REP2	To	ERCOT
DUNS #	111111112	DUNS #	183529049
Request Submitted	20190828	Service ZIP	78660
Trxn Ref #	OTIDSW1100563427MHOST	Action/Status	Request Addition
Orig Trxn Ref #		Special Switch Date	
TDSP Name		Billing Type	ESP
DUNS #		Bill Calc Code	DUAL
Request Type	Historical Interval Usage,	Special Needs?	N

CUSTOMER INFORMATION

Contact Name	TRENT REZNOR	Billing Name	
Phone	8005551212	Address	
Notification Name	NOTICE NAME		
Address	728 PACMAN BLVD		
	PFLUGERVILLE, TX 78660		

**CR**



**What Happened?
How Is It Fixed?**





ercot **MarkeTrak** Home | Application Settings | MIS | MarkeTrak Documentation | Legal Disclaimer | Help | Exit

MarkeTrak ID Search... Quick Links:

Submit

Basic Tasks:
Submit to my Preferred Projects

Advanced Tasks:
Browse and Submit to a Project
Find a Project to Submit into
Manage My Projects

Submit

Search

Reports

Favorites

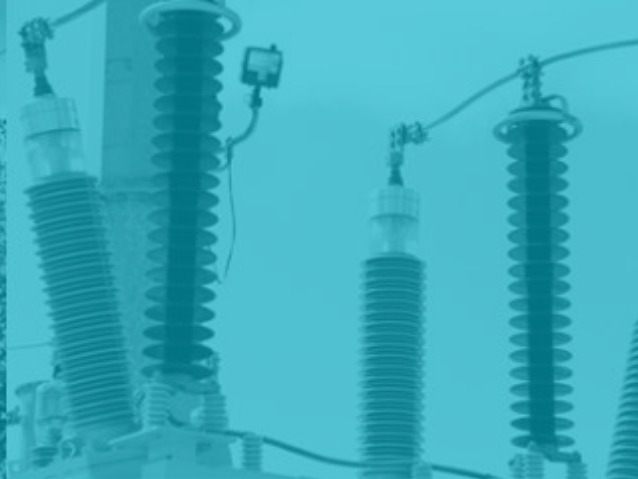
Public Folders

Submit Tree Save

- [-] MarkeTrak
 - [+] Bulk Insert
 - [-] Issues
 - [-] D2D
 - [+] Missing Enrollment TXNS
 - [+] Usage/Billing Issues
 - [+] Reject TXNs
 - [+] Rep of Record
 - [+] Projects
 - [+] Siebel CHG/Info
 - [+] 997 Issues
 - [+] Other
 - [+] Cancel With Approval
 - [+] IAG
 - [+] Customer Rescission
 - [+] Inadvertent Gaining
 - [+] Inadvertent Losing
 - [+] Redirect Fees

See ERCOT courses on MarkeTrak





Course Conclusion



Pre-requisites

- ERCOT Foundations – WBT
- Market Participant Relationships – WBT

For more info, see ...

- TxSET – ILT
- MarkeTrak – WBT
- LSE 201 – ILT and WBT



Client Services

Market Participant Communications

Programs

Projects

Registration and Qualification

Service Level Agreements

Training

Course Catalog

Course Recommendations

Course Recommendations

Following are course recommendations for ERCOT Market Training. Some classes are available as Instructor Led Training (**ILT**), Web Based Training (**WBT**), or both. For a detailed description of all available classes, please check out the [Course Catalog](#).

	QSE	QSE-L	QSE-R	RE	LSE	CRR	TDSP
Basic Market Information							
ERCOT Foundations WBT	✓	✓	✓	✓	✓	✓	✓
Wholesale Markets 101 <i>New!</i> ILT	✓	✓	✓	✓	✓	✓	✓
Nodal 101 WBT	✓	✓	✓	✓	✓	✓	✓
Retail 101 ILT \ WBT					✓		
Intermediate Market Information							
Wholesale Markets 201 ILT \ WBT	✓	✓	✓				
Load Serving Entities 201 ILT \ WBT		✓			✓		
Congestion Revenue Rights ILT \ WBT	✓	✓	✓			✓	

- 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>

