Retail 101

# Training Need

Retail 101 is intended to be the primary course for Competitive Retailers (Retail Electric Providers and Opt-In Entities) in the ERCOT system. As such, it introduces the major components in ERCOT’s retail market design, including Registration and Qualification, Retail Operations, Metering, Retail Settlement and Data Transparency. The course must also introduce supporting concepts such as Transaction Processing, Issue resolution and Market Rules.

This course follows a hybrid instructional design that incorporates both web-based training and instructor-led coursework. Foundational concepts are introduced through web-based training prerequisite courses. New concepts are introduced just in time to be utilized in scenarios, allowing the opportunity for immediate application and reinforcement.

# Target Audience

*Participants in the competitive retail market who have a basic knowledge of the Market Participant entities and the history of the electric industry but are unfamiliar with the mechanics of the ERCOT Retail Market*. *This course is intended for Competitive Retailers, both Retail Electric Providers and Opt-In Entities as well as transmission/Distribution Service Providers.*

# Student Objectives

(Numbered objectives are for executive summary path; lettered objectives are incremental for detailed path)

## Summarize the key responsibilities of various players in the ERCOT Retail Market

## Identify Market Rules structure that impact Retail Market Operations

## Describe the basic roles of the Competitive Retailer

## Illustrate the basic business practices of Move-In, Switch Request and Move-out

## Distinguish between different types of metering technology currently in use in ERCOT

## Illustrate the flow of meter data in the ERCOT retail processes

## Identify the tools and information available for shadowing retail data, identifying and troubleshooting Retail Market Transactions

# Prerequisites

## ERCOT Foundations

## MP Relationships

1. Retail 101
2. Administrative Introduction
   1. Course Introduction
   2. Protocol Disclaimer
   3. Housekeeping
3. Introduction
   1. Course Modules
      1. Retail Market Responsibilities
      2. Becoming a Competitive Retailer
      3. Retail Operations
      4. Metering
      5. Wholesale Settlement of Retail Load
      6. Data Transparency and Availability
      7. Issue Resolution
4. Module 1: Retail Market Responsibilities
   1. Competitive Retailer’s role
      1. Sign up customers
      2. Bill customers
      3. Submit enrollments and switches
   2. TDSP’s Retail role
      1. Create, Retire, De-Energize ESIIDs
      2. ESIID details and attributes
      3. Physical system operations
      4. Connect consumers
      5. Meter energy
      6. Process switches
      7. Investigate customer issues
      8. Bill REP per tariff
   3. ERCOT’s role
      1. Process transactions
      2. Collect and distribute meter readings
      3. Profile non-AMS consumers
      4. Act as registration agent
      5. ERCOT Account Manager
5. Module 2: Becoming a Competitive Retailer
   1. Market Rules
      1. PUCT Substantive rules
      2. ERCOT Protocols
      3. Market Guides
      4. RMS
      5. Working Groups (TDTMS, PWG, TX SET)
   2. Registration and qualification
      1. PUCT
      2. ERCOT
      3. FlighTrak
   3. QSE representation
      1. Purpose
      2. Become one
      3. Choose one
   4. Sign up customers
6. Module 3: Retail Operations
   1. Retail processing
      1. Communication that facilitates business processes
      2. Pre-defined package of transactions that must occur in order
      3. Parties involved
      4. Form of transaction - EDI
   2. TX SET
      1. Developed and maintained by TX SET Working Group
      2. Where to find transaction numbers
      3. Reference materials
   3. Three main processes
      1. Move-in
      2. Switch
      3. Move-Out
      4. Typical transaction timelines
   4. **Scenario** – Retail processes
      1. Set up scenario with a customer
      2. Work through logical process
      3. Discuss the results
      4. Introduce swimlanes
   5. Invoicing processes
      1. TDSP charges
      2. CR charges
      3. Billing and payment transactions
   6. Special processes
      1. Disconnect/reconnect for Non-Pay
      2. Switch hold
7. Module 4: Metering
   1. Meter data
      1. Definition
   2. Advanced Meter Systems Meter
      1. AMSR – remote connectivity
      2. AMSM – manual connectivity
   3. Non-AMS Meter
      1. Scalar/Analog
      2. Interval Data Recorder
      3. Non-IDR Meters
   4. AMS Meter Characteristics
      1. Usage every 15 min
      2. Remote capabilities
      3. Aka “Smart meter”
   5. IDR Characteristics
      1. 15 minute interval
      2. Typically reported monthly transactions
      3. Mostly on large customers
   6. Non-IDR/scalar/Analog meter Characteristics
      1. Measurement of one scalar for entire month
      2. Must be shaped into 15 min intervals – profile
      3. Requires manual field activity
   7. AMS Data Flow
      1. Big picture
      2. TDSP Data collection and processing
      3. Meter data in settlements
   8. AMS benefits to Market
      1. ~98% competitive load using interval data
      2. REP and Customer can see customer’s actual usage pattern - SMT
      3. More accurate REP settlement with QSE
      4. ~73% actual data used in initial settlement
      5. Faster execution of retail market processes
   9. Benefits of AMS
      1. Allows for Prepay
      2. Allows for Demand response
      3. Allows for Time-of-use rate offerings
      4. Improved service reliability
      5. Earlier detection of faulty meters or tampering
8. Module 5: Settlement of Retail Load
   1. Meter data processing
      1. Aggregation
      2. Estimation of missing data
      3. Distribution losses
      4. Transmission Losses
      5. UFE
      6. Adjusted Metered Load
   2. Roll up by QSE
      1. QSE settlement with ERCOT
      2. Allocation of AS
      3. Credit
   3. Settlement cycle
9. Module 6: Data Transparency and Availability
   1. MIS
      1. Data service for MPs
      2. How to access
      3. What’s available
   2. MIS Data classifications
      1. Public Data
      2. Secure Data
      3. Certified Data
   3. EMIL
      1. Where to find it
      2. How to use it
   4. Data Extracts
      1. Description of extracts
      2. Automated delivery mechanism for certain packages of data
      3. Transport data from ERCOT db to MP db
      4. Packaged in one of two formats
      5. Extract Subscriber
      6. How to use – DDLs, XSDs, User guides, API Spec
   5. Find Transaction
      1. Purpose
      2. Launched from MIS
      3. Example
      4. 4 years back
   6. Find ESI ID
      1. Purpose
      2. Launched from MIS
      3. Single ESIID
      4. Multiple ESI ID
      5. Premise Address
      6. 6 month only
   7. ESI ID Service History and Usage Extract
      1. Start/Stop time for ESI ID and REP relationship
      2. Other ESI ID level data (Load Zone, Servicing TDSP, Profile class)
      3. Monthly meter data
      4. Available three days after it posts with ERCOT
   8. Supplemental AMS Interval Data Extract
      1. Daily meter data by 15 minute interval
      2. Available three days after it posts with ERCOT
   9. Market Data Transparency Web Service
      1. Similar information to extract on ad-hoc basis
      2. Location
      3. Market guide
10. Module 7 – Issue Resolution
    1. Common issues
       1. Inadvertent Gains and losses
       2. Cancel with/without approval
       3. Missing transactions
       4. Usage and billing issues
       5. Timing of transactions
    2. MarkeTrak
       1. Facilitate resolution of issues between MPs
       2. Launched from MIS
       3. Enable historical reporting of issues
       4. Point to MarkeTrak training
    3. **Scenario** - Issue Resolution
       1. Set up exercise - CR expecting a customer and did not get them
11. Course Conclusion
    1. Additional Resources
    2. Where to go next
    3. Feedback
    4. Answers
12. Additional Resources
    1. ERCOT Protocols link
    2. ERCOT Training link
    3. Account management email addresses
13. Survey