

# Operations Training Working Group (OTWG)

March 14th, 2019

ERCOT 800 Airport Drive, Taylor, Building TCC 1, Room 253/WebEx

0900-1200

* **Anti-trust Admonition**

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.

* **Disclaimer**

All presentations and materials submitted by Market Participants or any other Entity to ERCOT staff for this meeting are received and posted with the acknowledgement that the information will be considered public in accordance with the ERCOT Websites Content Management Operating Procedure.

* **Previous meeting minutes**

Motions to pass

**CURRENT/UPCOMING EVENTS**

* NERC Exam Working Group (EWG)
  + Hosted in St. Louis Missouri; contact Josh Aldredge if interested
* Other?

**OPERATIONS NOTICES, NOGRRs and NPRRs**

* No pertinent NOGRR’s or NPRR’s at this time
* No additional news to report

**ITEMS FOR DISCUSSION**

* 2019 OTWG Meetings
  + Chair/Co-Chair elected
    - Tamme Chilton (CNP)/Stacy Wozny (ERCOT)
  + Schedule (see below)
    - Meeting time set for 0900 to 1200
* ERCOT Initial Operator Training Program
  + Prepares Participants for ERCOT and NERC Certification exams
  + Piloting is underway with 10 participants
    - 100% CBT focused on 10 modules
    - ERCOT operators have a 97% passing rate
    - Should be completed by June or July, 2019
  + Contracting for official practice exams is under consideration
  + Once CBT modules completed by contractor, they will be made available to market participants (entities) to purchase
* ERCOT Certification Exam
  + ERCOT System Operations Training has full ownership of exam
  + Website updated with dates, times, study material, and admin forms
  + No practice test currently exists
  + Allowing non-ERCOT MP personnel to take the exam (1 active case)
  + Feedback, overall, is positive
  + Participants MUST review exam results before leaving the ERCOT site and notify the proctor to challenge
* First pass/fail analysis conducted after 25 participants
* Wait time between test/retest
* Exam available Thursday PM only during Black Start/OTS cycles
* ERCOT Fundamentals manual
  + Need reviews of the fundamentals manual
  + Redlines to suggest changes/updates for incorrect/confusing information and more in-depth “how” where needed
* Human Performance Improvement (HPI) Task Force
  + HPITF will be a sub-group of OTWG
    - Membership ▪ Startup
  + Mark Henry (TRE) suggested HPI training should be offered to other employees beyond system operators
  + NERC has developed a new HPI training workshop
* Operator Training Seminar – Theme and Topic Selection
  + Senior management is reviewing theme/topics (see final page)
  + “Recommended times” – in the survey for determination
    - QSE’s – 19
    - TOP’s – 20
    - Mix crowd – 15
  + Splitting classes for 1-2 days and combining classes on final day?
  + Performance simulation on final day?
  + Add more system restoration theory so that during BST participants can be more focused on actual restoration

**TRAINING EVENTS**

* 2019 Black Start and Restoration Training
  + System Restoration Pre-requisite Computer Based Training
    - Pilot data has been gathered; content is verified and good
    - Each participant will receive unique user ID
    - CBT submitted for 2 hours towards credential maintenance
    - CBT completion is REQUIRED to attend training at ERCOT
  + Training begins Tuesday 7:00; through Thursday noon
    - Pilot: February 26th – 28th
    - Week 1: March 19th – 21st
    - Week 2: March 26th – 28th
    - Week 3: April 2nd – 4th
    - Week 4: April 9th – 11th
    - Week 5: April 16th – 18th
    - Week 6: April 23rd – 25th
    - Inclement Weather Week: April 30th – May 2nd
* 2019 Operator Training Seminar
  + Training runs Tuesday 00:00-00:00; Wednesday 00:00-00:00; Thursday 00:00-00:00
    - Pilot: August 13th – 15th
    - Week 1: August 27th – 29th
    - Week 2: September 3rd – 5th
    - Week 3: September 10th – 12th
    - Week 4: September 17th – 19th
    - Week 5: September 24th – 26th
    - Week 6: October 1st – October 3rd
* 2019 Other Training
  + WSD – week 2 of cycle 6
  + GridEX – week 5 of cycle 6 (11/13 and 11/14)

**New Business**

* + Solicit new business

**Adjourn**

Next Meeting Dates (Information will be updated by the meeting)

<http://www.ercot.com/committees/board/tac/ros/otwg/>

* + April 11th (9am) TCC 1, RM 252 / WebEx cancel?
  + May 9th (9am) TCC 1, RM 252 / WebEx
  + June 13th (9am) TCC 1, RM 252 / WebEx
  + July 18th (9am) TCC 1, RM 252 / WebEx
  + August 15th (9am) TCC 1, RM 252 / WebEx
  + September 12th (9am) TCC 1, RM 252 / WebEx cancel?
  + October 10th (9am) TCC 1, RM 252 / WebEx
  + November 14th (9am) TCC 1, RM 252 / WebEx
  + December 12th (9am) TCC 1, RM 252 / WebEx

**Topic Suggestions for QSE’s**

* Generator Protection
* Unannounced Resource Testing
* Wind Energy Requirements & Integration
* QSE functions & Responsibilities
* Frequency Control
* Generation Dispatch in a De-Regulated Market
* Control Performance
* Reactive Voltage Control
* Real-Time Dispatch and Reliability
* Impact to frequency control during startup & shutdown of units
* New Generation Technologies and ERCOT
* ERCOT Market Role in Emergency Operations
* Distributed Energy & Demand Response
* RUC Process
* Markets & Reliability
* Generator Weatherization
* Wind Forecast & MW Scheduling
* Wind Technologies & Capabilities
* Seasonal Planning Considerations

**Topic Suggestions for TOP’s**

* Understanding Voltage, Reactive Support & Control
* Impact of Transmission System Voltage
* Using Generation & Load to Control Frequency
* Protection Systems
* Block Load Transfers
* Load Shed Requirements
* CREZ Updates and Trends
* Basic Transmission Line Protection
* Voltage Control
* Current ERCOT RASs, RAPs and AMPs
* ERCOT DC Ties
* Congestion Management Actions
* Basic Transformer Protection
* GMD Effects on Transmission
* Responding to Post-Contingency Overloads, IROLs & SOLs
* Voltage Collapse and Sympathy Trips
* Real-Time Transmission Congestion Management & Market Effects
* TOP Operation Experience with Wind Generation
* Seasonal Planning Considerations
* Far-West Texas Project

**Topic Suggestions for Mixed Crowd’s**

* Human Performance Improvement (HPI)
* System Operator Roles in Cyber Security
* Emergency Operations in ERCOT
* ERCOT Security Plans
* CRR Fundamentals
* Coping with Shift Work
* Outage Scheduler
* Black Start Plans: Creation and Implementation
* Critical Infrastructure Protection (TRE SSRG)
* Security Constrained Economic Dispatch (SCED)
* Sabotage Reporting
* ERCOT Demand Response
* ERCOT EMS Network Applications
* Natural Gas Industry
* Design Your Screen for Situational Awareness