

# Operations Training Working Group (OTWG)

January 17th, 2019

ERCOT 800 Airport Drive, Taylor, Building TCC 1, Room 252/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.

* Approval of Meeting Notes – November 2018

**UPCOMING/CURRENT EVENTS**

* 2019 Blackstart Training (Cycle 2 03/18 – 05/10)

**RECENT EVENTS,OPERATIONS NOTICES, NOGRRs and NPRRs**

* Instructor Development “Train-the-Trainer” Training (November 8th, 2018)
* No pertinent NOGRR’s or NPRR’s at this time

**ITEMS FOR DISCUSSION**

* Vote for new chair and co-chair (Chair must be from market)
	+ Please select one of the following nominees for the role of Chair:
		- Tamme Chilton (CNP)
		- Manuel Sanchez (ONCOR)
		- Steve Aragon (LCRA)
		- Rosemary Haarer (AEN)
		- Kurt Hammons (AEN)
	+ Please select one of the following nominees for the role of Co-Chair:
		- Dante Jackson (CNP)
		- Tamme Chilton (CNP)
		- Manuel Sanchez (ONCOR)
		- Stacy Wozny (ERCOT)
		- Kurt Hammons (AEN)
		- Rosemary Haarer (AEN)
* ERCOT Exam
	+ Feedback is positive overrall
	+ First pass/fail analysis will be conducted after 25 participants have completed the exam.
	+ ERCOT System Operations Training has full ownership of exam
	+ Discussion on allowing non-ERCOT MP personnel to take the exam (1 active case).
	+ Website has been updated with dates, times, study material, and admin forms
	+ No practice test currently exists for the ERCOT Certification test
	+ Participants must review test results before leaving ERCOT site and can challenge the test results. However, they MUST notify the proctor prior to leaving the testing site.
* Human Performance Improvement (HPI) Task Force Findings
	+ Submitted for discussion and voting at the next ROS meeting (November)
	+ ROS wants more information on the need to create a new group
* Updates to ERCOT Fundamentals manual
	+ Request reviews of the fundamentals manual
	+ Suggest changes of incorrect or confusing information
	+ Suggest updates to include more in-depth “how” where needed
	+ Redlines?
* System Restoration Pre-requisite Computer Based Training
	+ Pilot data has been gathered
	+ CBT is being submitted for 2 hours towards credential maintenance
	+ Completion is REQUIRED to attend BS in person
* 2019 OTWG meetings
	+ All dates were changed to prevent conflict with ROS meetings
	+ All meetings are scheduled for 0900 to 1200
* ERCOT Initial Operator Training Program
	+ Piloting is underway with 10 participants
	+ Currently in the Power Generation Module
	+ Pilot program is 100% CBT focused on 10 modules
		- ERCOT operators have a 97% passing success rate
	+ Participants will be prepared for ERCOT and NERC certification exams
		- 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
* 2019 Cycle Training Calendar Discussion
	+ Available dates – Cycles 1 – 5
	+ Final date for OTS is cycle 5 (August 26 – October 3)
	+ Pilot the week before July 4th
	+ WSD – week 2 of cycle 6
	+ GridEX – week 5 of cycle 6 (11/13 and 11/14)
* Theme and Topic Selection for 2019 OTS
	+ Request suggestions on daily time frames
	+ Request feedback on splitting classes for 1-2 days and combining classes on final day
	+ Potentional Topics: (see topic list at the end)
		- QSE’s – 19
		- TOP’s – 20
		- Mix crowd – 15
	+ Thoughts on a performance simulation on final day?
	+ Senior management is reviewing theme and topic selection for 2019
	+ Possibly adding more system restoration theory so that during BST participants can be more focused on actual restoration
* New Business
	+ Solicit new business
	+ None
* Adjourn
* Next Meeting Dates (Information will be updated by the meeting)

February 14th (9 am) TCC 1, Rm 252 / WebEx

March 14th (9 am) TCC 1, Rm 253 / WebEx

April 11th (9am) TCC 1, RM 252 / WebEx

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

October 10th (9am) TCC 1, RM 252 / WebEx

November 14th (9am) TCC 1, RM 252 / WebEx

December 12th (9am) TCC 1, RM 252 / WebEx

**2019 TRAINING EVENTS**

* 2019 Black Start and Restoration Training
* No training on Monday mornings, training begins Tuesday
	+ Pilot: February 26th – 28th (Black Start and Restoration Training)
	+ Week 1: March 19th – 21st (Black Start and Restoration Training)
	+ Week 2: March 26th – 28th (Black Start and Restoration Training)
	+ Week 3: April 2nd – 4th (Black Start and Restoration Training)
	+ Week 4: April 9th – 11th (Black Start and Restoration Training)
	+ Week 5: April 16th – 18th (Black Start and Restoration Training)
	+ Week 6: April 23rd – 25th (Black Start and Restoration Training)
	+ Inclement Weather Week: April 30th – May 2nd (Black Start and Restoration Training)
* 2019 Operator Training Seminar
	+ Pilot: August 26th – 28th
	+ 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
	+ Days of the week - Tuesday, Wednesday & Thursday
	+ “Recommended times” is in the survey for determination

[**WebEx Conference**](https://ercot.webex.com/ercot)

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| **OTWG Meeting**  |
| Thursday, January 17, 2019  |
| 9:00 am  |  Central Daylight Time (Chicago, GMT-05:00)  |  3 hrs  |

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| Meeting number (access code): 629 432 959 Meeting password: otwg01 |

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| [Add to Calendar](https://urldefense.proofpoint.com/v2/url?u=https-3A__ercot.webex.com_ercot_j.php-3FMTID-3Dm9900b00660ca8e136381fd1525b62f06&d=DwMGaQ&c=trp9rTvIdyEWh1VWB5x8_2JiPaB5oGZOtWPDws2_VoY&r=T0m5Jg90hX6QBKd0dyCgfRQSppFZ4x_43N_zqr-h2HU&m=y97fa76IayHy1-V4VHu2YMBn6kj76iDNbC0tBrgYujg&s=iT5OXKReFNl2ziWZIYG6aXTL2a7hl-RmttOcUdbJkek&e=)  |

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| When it's time, [start your meeting](https://urldefense.proofpoint.com/v2/url?u=https-3A__ercot.webex.com_ercot_j.php-3FMTID-3Dm2f26fc8bdc0708564c084bf3a1244cf8&d=DwMGaQ&c=trp9rTvIdyEWh1VWB5x8_2JiPaB5oGZOtWPDws2_VoY&r=T0m5Jg90hX6QBKd0dyCgfRQSppFZ4x_43N_zqr-h2HU&m=y97fa76IayHy1-V4VHu2YMBn6kj76iDNbC0tBrgYujg&s=3xP5u9ckNcvf49SAa2EDbI0MPC5f3A0ik1AelUuh0y0&e=). |

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| **Join by phone** |
| **1-877-668-4493** Call-in toll-free number (US/Canada) |
| **1-650-479-3208** Call-in toll number (US/Canada) |
| [Toll-free calling restrictions](https://urldefense.proofpoint.com/v2/url?u=https-3A__www.webex.com_pdf_tollfree-5Frestrictions.pdf&d=DwMGaQ&c=trp9rTvIdyEWh1VWB5x8_2JiPaB5oGZOtWPDws2_VoY&r=T0m5Jg90hX6QBKd0dyCgfRQSppFZ4x_43N_zqr-h2HU&m=y97fa76IayHy1-V4VHu2YMBn6kj76iDNbC0tBrgYujg&s=F4mm9AbKSIybEUPPIQ4WM7OiZPf7KekQqwmFFu7hXvs&e=) |
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**Topic Suggestions for QSE’s**

1. Generator Protection
2. Unannounced Resource Testing
3. Wind Energy Requirements & Integration
4. QSE functions & Responsibilities
5. Frequency Control
6. Generation Dispatch in a De-Regulated Market
7. Control Performance
8. Reactive Voltage Control
9. Real-Time Dispatch and Reliability
10. Impact to frequency control during startup & shutdown of units
11. New Generation Technologies and ERCOT
12. ERCOT Market Role in Emergency Operations
13. Distributed Energy & Demand Response
14. RUC Process
15. Markets & Reliability
16. Generator Weatherization
17. Wind Forecast & MW Scheduling
18. Wind Technologies & Capabilities
19. Seasonal Planning Considerations

**Topic Suggestions for TOP’s**

1. Understanding Voltage, Reactive Support & Control
2. Impact of Transmission System Voltage
3. Using Generation & Load to Control Frequency
4. Protection Systems
5. Block Load Transfers
6. Load Shed Requirements
7. CREZ Updates and Trends
8. Basic Transmission Line Protection
9. Voltage Control
10. Current ERCOT RASs, RAPs and AMPs
11. ERCOT DC Ties
12. Congestion Management Actions
13. Basic Transformer Protection
14. GMD Effects on Transmission
15. Responding to Post-Contingency Overloads, IROLs & SOLs
16. Voltage Collapse and Sympathy Trips
17. Real-Time Transmission Congestion Management & Market Effects
18. TOP Operation Experience with Wind Generation
19. Seasonal Planning Considerations
20. Far-West Texas Project

**Topic Suggestions for Mixed Crowd’s**

1. Human Performance Improvement (HPI)
2. System Operator Roles in Cyber Security
3. Emergency Operations in ERCOT
4. ERCOT Security Plans
5. CRR Fundamentals
6. Coping with Shift Work
7. Outage Scheduler
8. Black Start Plans: Creation and Implementation
9. Critical Infrastructure Protection (TRE SSRG)
10. Security Constrained Economic Dispatch (SCED)
11. Sabotage Reporting
12. ERCOT Demand Response
13. ERCOT EMS Network Applications
14. Natural Gas Industry
15. Design Your Screen for Situational Awareness