

# Operations Training Working Group (OTWG)

September 13th, 2018

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

0900-1030

* 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 – June 2018

**UPCOMING/CURRENT EVENTS**

* Instructor Development “Train-the-Trainer” Training (November 8th, 2018)
	+ Topic – Developing Learning Objectives

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

* No Updates

**ITEMS FOR DISCUSSION**

* ERCOT Exam (Josh Aldridge)
	+ Consensus on one certification
	+ Combine ERCOT fundamentals manual sections 2, 13 and 15; Nodal Operating Guide sections 2, 3, 4, 6, 7 and 11; Nodal Protocols section 2
	+ Upload of 415 new questions completed on 8/12
	+ Test is active as of 8/14/18
	+ NOGRR required to address NOG Section 1.5.6
	+ Practice tests being created
* Updates to ERCOT Fundamentals manual (Josh Aldridge)
	+ Request reviews of the fundamentals manual
	+ Suggest changes of incorrect or confusing information
	+ Suggest updates to include more in-depth “how” where needed
* Black Start Training Evaluation Task Force (Josh Aldridge)
	+ Task Force scope has been developed and was briefed as part of the meeting
	+ Chair (Nathaniel Perio) and Co-Chair (Manuel Sanchez)
		- Official cope and task letter sent out 6/18/2018
		- Chair will solicite participation in the group and present deadlines to members
	+ Findings returned on August 9th, 2018
* ERCOT Initial Operator Training Program (Josh Aldridge)
	+ Piloting is underway with 10 participants
	+ Pilot program is 100% CBT focused on 10 modules
		- A need for Instructor-led content will be studied based on pilot results
	+ Participants will be prepared for ERCOT and NERC certification exams
		- Contracting for official practice exams is underway
* 2019 Cycle Training Calendar Discussion (Erik Johnson)
	+ Available dates – Cycles 1 – 5
	+ Final date for OTS is cycle 5 (August 26 – October 3)
	+ Pilot the week before July 4th
* Theme and Topic Selection for 2019 OTS (Josh Aldridge)
	+ Request suggestions on daily time frames
	+ Request feedback on splitting classes for 1-2 days and combing classes on final day
	+ Potentional Topics: (see topic list at the end)
		- QSE’s – 19
		- TOP’s – 20
		- Mix crowd – 15
* New Business
	+ Solicit new business
* Adjourn
* Next Meeting Dates (Information will be updated by the meeting)

October 11 (9 am) TCC 1, Rm 253 / WebEx

November 8 (9 am) TCC 1, Rm 252 / WebEx

December 13 (9 am) TCC 1, Rm 253 / WebEx

**2019 TRAINING EVENTS**

* 2019 Black Start and Restoration Training
	+ Pilot: February 25th (Generation and Transmission Dynamics) and February 26th – 28th (Black Start and Restoration Training)
	+ Week 1: March 18th (Generation and Transmission Dynamics) and March 19th – 21st (Black Start and Restoration Training)
	+ Week 2: March 25th (Generation and Transmission Dynamics) and March 26th – 28th (Black Start and Restoration Training)
	+ Week 3: April 1st (Generation and Transmission Dynamics) and April 2nd – 4th (Black Start and Restoration Training)
	+ Week 4: April 8th (Generation and Transmission Dynamics) and April 9th – 11th (Black Start and Restoration Training)
	+ Week 5: April 15th (Generation and Transmission Dynamics) and April 16th – 18th (Black Start and Restoration Training)
	+ Week 6: April 22nd (Generation and Transmission Dynamics) and April 23rd – 25th (Black Start and Restoration Training)
	+ Inclement Weather Week: April 29th (Generation and Transmission Dynamics) and April 30th – May 2nd (Black Start and Restoration Training)
* 2019 Operator Training Seminar
	+ Pilot: August 20th – 22nd
	+ Week 1: August 27th – 29th
	+ Week 2: September 3rd – 5th
	+ Week 3: September 9th – 12th
	+ Week 4: September 17th – 19th
	+ Week 5: September 24th – 26th
	+ Week 6: October 1st – October 3rd

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

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| **OTWG Meeting**  |
| Thursday, September 13, 2018 9:00 am | Central Daylight Time (Chicago, GMT-05:00) | 3 hrs Meeting number (access code): 628 976 874 Meeting password: otwg09 |

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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