**AGENDA**

**ERCOT Reliability Operations Subcommittee (ROS) Meeting**

ERCOT Austin / 7620 Metro Center Drive / Austin, Texas 78744

**Thursday, November 7, 2019 / 9:30 a.m.**

[**http://ercot.webex.com**](http://ercot.webex.com)

Meeting Number: 629 164 548

Meeting Password: ROS

Teleconference: 1.877.668.4493

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|  1. | Antitrust Admonition | K. Bunch |  9:30 a.m. |
|  2. | Agenda Review | K. Bunch |  |
|  3.  | **Approval of ROS Meeting Minutes (Vote)** | K. Bunch | 9:35 a.m.  |
|  | * **October 3, 2019**
 |  |  |
|  4. | Technical Advisory Committee (TAC) Update | K. Bunch |  9:40 a.m.  |
|  5. | ERCOT Reports |  |  9:45 a.m.  |
|  | * Operations Report
 | ERCOT Staff |  |
|  | * System Planning Report
 | F. Huang |  |
|  | * **Proposed changes to Ancillary Service Methodology for 2020 (Vote)**
 | N. Mago |  |
|  | * Inverter-Based Resources Update
 | F. Huang |  |
|  | * Energy Storage Update
 | S. Sharma |  |
|  6. | NERC and FERC Report on January 2018 Operational Issues in MISO South | D. Huff/ H. Polzin/ K. Lyons | 10:25 a.m.  |
|  7. | **New Protocol Revision Subcommittee (PRS) Referrals (Vote)** | K. Bunch | 11:10 a.m.  |
|  | * **NPRR973, Add Definitions for Generator Step-Up and Main Power**
 |  |  |
|  8. | Revision Requests Tabled at PRS, Referred to ROS (Possible Vote) | K. Bunch | 11:20 a.m.  |
|  | * NPRR953, Addition of Relay Loadability Rating Definition (SPWG)
 |  |  |
|  9. | **ROS Revision Requests (Vote)**  | K. Bunch |  11:30 a.m.  |
|  | ***Language Review***  |  |  |
|  | * **NOGRR196, Related to NPRR973, Add Definitions Generator Step-Up and Main Power Transformer**
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|  | * **PGRR074, Related to NPRR973, Add Definitions Generator Step-Up and Main Power Transformer**
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|  | * **RRGRR022, Related to NPRR973, Add Definitions Generator Step-Up and Main Power Transformer**
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|  | * **PGRR075, Dynamic Model Quality Requirement**
 |  |  |
|  | * **PGRR076, Improvements to Generation Resource Interconnection or Change Request (GINR) Process**
 |  |  |
|  | *Impact Analysis Review* |  |   |
|  | * **PGRR071, Update Interconnection Process Timetables to Align with NPRR926**
 |  |  |
|  10. | Revision Requests Tabled at ROS (Possible Vote) | K. Bunch |  11:40 a.m. |
|  | * PGRR073, Related to NPRR956, Designation of Providers of Transmission Additions
 |  |  |
|  11. | Operations Working Group (OWG) | R. Floyd  | 11:50 a.m.  |
|  | * NPRR955, Define Limited Impact Remedial Action Scheme (RAS) (OWG) (Possible Vote)
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|  | * NOGRR183, Remedial Action Scheme (RAS) Submittal and Review Requirements (PLWG/OWG) (Possible Vote)
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|  | * NOGRR190, Related to NPRR937, Distribution Voltage Level Block Load Transfer (BLT) Deployment (OWG) (Possible Vote)
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|  | * NOGRR195, Generator Voltage Control Tolerance Band (OWG) (VPWG) (Possible Vote)
 |  |  |
|  | * RRGRR021, Dynamic Model Requirement for TSAT (DWG) (OWG)
 |  |  |
|  12. | Performance Disturbance Compliance Working Group (PDCWG) | C. Mulholland |  12:00 p.m. |
|  | * NPRR963, Creation of Generation and Controllable Load Resource Group (GCLR Group) (PDCWG) (Possible Vote)
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|  13. | Steady State Working Group (SSWG) | B. Hithersay |  12:10 p.m.  |
|  14. | Planning Geomagnetic Disturbance Task Force (PGDTF) | A. Amahatsion | 12:20 p.m.  |
|  15.  | Voltage Profile Working Group (VPWG) | M. Lewis | 12:30 p.m.  |
|  16.  | Network Data Support Working Group (NDSWG) | B. Ravulapati | 12:40 p.m.  |
|  17. | Dynamics Working Group (DWG) | C. Minchew | 12:50 p.m. |
|  18. | Other Business | K. Bunch |  1:00 p.m.  |
|  | * Distribution Generation Resources (DGR) Workshop Update
 | ERCOT Staff |  |
|  | * 2020 ERCOT Membership/Segment Representative Elections
 | S. Clifton |   |
|  | * Review Open Action Items
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|  | * No Report:
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|  | * + Black Start Working Group (BSWG)
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|  | * + Operations Training Working Group (OTWG)
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|  | * + Planning Working Group (PLWG)
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|  | * + System Protection Working Group (SPWG)
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|  | Adjourn | K. Bunch |  1:15 p.m.  |
|  | Future ROS Meetings |  |  |
|  | * December 5, 2019
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|  | * January 9, 2020
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| Open Action Items | Responsible  | Assigned  |
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| Inverter-Based Resource Issue 3, Voltage Ride through  | DWG | 07/11/2019 |
| Inverter-Based Resource Issue 4, Dynamic Models | DWG | 07/11/2019 |
| ERCOT Nodal ICCP Communication Handbook – update to include review of what is binding and what is nonbinding, consider what is in reference material, OBD and Operating Guide, and then figure out repository | NDSWG | 05/02/201904/04/2019 |
| TAC Assignment: Reliability considerations regarding Outage Activity Related to Operating Condition Notice (OCN) | OWG to look at Operating Guides to confirm consistent after WMS/WMWG review the issues | 07/11/2019 |
| Evaluating and improving ERCOT’s Dynamic Frequency Response Model  | PDCWG | 07/11/2019 |
| *Southern Cross Directives* SCT Directive 3: Determination of Ramp Rate RestrictionsDirective 9, Ancillary Services* Issues related to study of frequency overshoot and LRs UFR setting
* Margin between min RRS Procurement & Contingency Reserve Requirements

Address issues related to NSRS and Regulation Service | ROS PDCWGDWGOWG/PDCWGPDCWG | 03/07/2019 |
| TAC Assignment: Energy Storage Issue 2: Battery Energy Storage Operational Requirements 1. Address whether batteries should have different operational requirements when charging and discharging
 | ROSPDCWG – Open meeting | 07/11/201907/11/2019 |
| TAC Assignment: Energy Storage Issue 5: Operations System Design Changes  | ROS  | 07/11/2019 |
| TAC Assignment: Energy Storage Issue 6: State of Charge/Limited Duration Considerations* Develop appropriate battery state of charge requirements/procedures for Reliability-Unit Commitment (RUC)
 | ROS/WMSOWG | 07/11/201908/08/2019 |
| TAC Assignment: Energy Storage Issue 7: Alternative Device Modeling Options | ROS/WMS | 07/11/2019 |