**APPROVED**

**Minutes of the Wholesale Market Subcommittee (WMS) Meeting**

**Webex Only**

**Wednesday, December 1, 2021– 9:30 a.m.**

Attendance

*Members:*

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Barnes, Bill | Reliant Energy Retail Services |  |
| Burke, Tom | Invenergy |  |
| Camet, Brooke | OPUC | Alt. Rep. for Eric Goff |
| Carpenter, Jeremy | Tenaska Power Services |  |
| Cochran, Seth | DC Energy |  |
| Coleman, Diana | CPS Energy | Alt. Rep. for David Detelich |
| Dreyfus, Mark | City of Eastland  | Alt. Rep. for Jamie Mauldin |
| Evans, Mike | Brazos Electric Cooperative |  |
| Farhangi, Anoush | Demand Control 2 |  |
| Franklin, Russell | Garland Power & Light  |  |
| Foster, Ashley | The Dow Chemical Company |  |
| Greer, Clayton | Morgan Stanley |  |
| Gross, Blake | AEP Service Corporation |  |
| Haley, Ian | Luminant Generation |  |
| Johnson, Anthony | CenterPoint Energy |  |
| Lange, Clif | South Texas Electric Cooperative |  |
| Lindberg, Ken | Bryan Texas Utilities |  |
| Roberts, Bobby | TNMP |  |
| Sams, Bryan | Calpine Energy Solutions | Alt. Rep. for Clint Sandidge |
| Simpson, Lori | Exelon |  |
| Smith, Caitlin | Jupiter Power | Alt. Rep. for Marty Downey |
| Smith, Mark | Nucor |  |
| Velasquez, Ivan | Oncor |  |
| Wilson, Joe Dan | Golden Spread Electric Cooperative |  |

The following proxy was assigned:

* Resmi Surendran to Clayton Greer

*Guests:*

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Abbott, Kristin | Austin Energy  |  |
| Ainspan, Malcolm | NRG |  |
| Aldridge, Ryan | AB Power Advisors  |  |
| Alford, Anthony | CenterPoint Energy |  |
| Anderson, Connor | AB Power Advisors |  |
| Anderson, Kevin | Customized Energy Solutions |  |
| Ashley, Kristy | Customized Energy Solutions |  |
| Benson, Mariah | PUCT |  |
| Bivens, Carrie | Potomac Economics |  |
| Blakey, Eric | Just Energy |  |
| Bunch, Kevin | EDF Trading North America  |  |
| Chamberlin, Jennifer  | CPower |  |
| Coleman, Katie | TIEC |  |
| Cripe, Ramsey | Schneider Engineering |  |
| Crouch, Rebekah | NBU |  |
| Daigneault, Ralph | Potomac Economics |  |
| Deleon, Amanda | Tenaska Power Services  |  |
| Frank, Arushi Sharma | Tesla |  |
| Goff, Eric | Lancium  |  |
| Graham, Sophie | Adapt 2 Solutions |  |
| Hanson, Kevin | National Grid |  |
| Hayden, Jolly | GDS Associates |  |
| Helton, Bob | Engie North America  |  |
| Henry, Mark | Texas Reliability Entity |  |
| Horstmyer, Reid | Dynasty Power |  |
| Hubbard, John Russ | TIEC |  |
| Huynh, Thuy | Potomac Economics |  |
| Kee, David | CPS Energy |  |
| Khayat, Maribel | CenterPoint Energy |  |
| Kilroy, Taylor | TPPA |  |
| Kroskey, Tony | Brazos Electric Cooperative |  |
| Lasher, Warren | Lasher Energy |  |
| Lotter, Eric | GridMonitor |  |
| Nguyen, Andy | Lower Colorado River Authority |  |
| Powell, Christian | Pedernales Electric Cooperative |  |
| Rainwater, Kim | Lower Colorado River Authority |  |
| Ramaswamy, Ramya | PUCT |  |
| Reedy, Steve | CIM Vie Consulting |  |
| Reid, Walter | Advanced Power Alliance |  |
| Rich, Katie | Golden Spread Electric Cooperative |  |
| Richmond, Michele | TCPA |  |
| Sager, Brenden | Austin Energy |  |
| Siddiqi, Shams | Crescent Power Consulting |  |
| Sithuraj, Murali | Austin Energy |  |
| Smith, Chase | Southern Power Company |  |
| Townsend, Aaron | Potomac Economics |  |
| True, Roy | ACES Power |  |
| Turner, Lucas | South Texas Electric Cooperative |  |
| Uy, Manny | Hunt Energy |  |
| Varnell, John | Tenaska Power Services |  |
| Walke, Pranil | Calpine |  |
| Williams, Wes | Bryan Texas Utilities |  |
| Wittmeyer, Bob | Longhorn Power |  |
| Yu, Joel | Enchanted Rock |  |
| Zhou, Emily | Potomac Economics |  |

*ERCOT Staff:*

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| --- | --- | --- |
|  |  |  |
| Albracht, Brittney |  |  |
| Bernecker, John |  |  |
| Bezzam, Joseph |  |  |
| Billo, Jeff |  |  |
| Boren, Ann |  |  |
| Bracy, Phil |  |  |
| Castillo, Leo |  |  |
| Cheng, Yong |  |  |
| Clifton, Suzy |  |  |
| Comstock, Read |  |  |
| Dinopol, Ohlen |  |  |
| Du, Pengwei |  |  |
| Dwyer, Davida |  |  |
| Garcia, Freddy |  |  |
| Gonzalez, Ino |  |  |
| House, Donald |  |  |
| Huang, Fred |  |  |
| Jenkins, Darrell |  |  |
| Kane, Erika |  |  |
| Lee, Alex |  |  |
| Lowe, Cagle |  |  |
| Madam, Vamsi |  |  |
| Magarinos, Marcelo |  |  |
| Maggio, David |  |  |
| Mago, Nitika |  |  |
| Matlock, Robert |  |  |
| Maul, Donald |  |  |
| McGuire, Josh |  |  |
| Mereness, Matt |  |  |
| Moreno, Alfredo |  |  |
| Ögelman, Kenan |  |  |
| Phillips, Cory |  |  |
| Ragsdale, Kenneth |  |  |
| Roberts, Randy |  |  |
| Ruane, Mark |  |  |
| Shaw, Pamela |  |  |
| Sheets, Jarod |  |  |
| Stice, Clayton |  |  |
| Tucker, Don |  |  |
| Woodfin, Dan |  |  |
| Xiao, Hong |  |  |
| Zhengguo, Chu |  |  |
| Zhou, David |  |  |

*Unless otherwise indicated, all Market Segments participated in the votes.*

Antitrust Admonition

Ivan Velasquez directed attention to the Antitrust Admonition, which was displayed.

Agenda Review

There were no changes to the agenda.

Approval of WMS Meeting Minutes

*November 3, 2021*

This item was deferred to the January 5, 2022 WMS meeting.

Technical Advisory Committee (TAC) Update (see Key Documents)[[1]](#footnote-1)

*November 29, 2021*

Mr. Velasquez reviewed the disposition of items considered at the November 29, 2021 TAC meeting, including NPRR1105, Option to Deploy Distribution Voltage Reduction Measures Prior to Energy Emergency Alert (EEA), NPRR1107, Addition of Weatherization Inspection Fees to the ERCOT Fee Schedule and Clarification of Generation Interconnection Request Fees, and the 2022 ERCOT Methodologies for Determining Minimum Ancillary Service Requirements, and summarized the discussion regarding the TAC assignments to WMS to review voltage reduction issues, future cost allocation methodology for weatherization inspections, and the increased procurement of Non-Spinning Reserves (Non-Spin). Market Participants discussed the issues and made the following assignments to the Wholesale Market Working Group (WMWG):

* Review cost/compensation for voltage reduction for grid reliability and consider pricing impacts, deployment mechanisms and how much, when used, and wholesale market impacts.
* Review equitable cost allocation methodology for long term for weatherization inspection fees.
* Review the 2022 ERCOT Methodologies for Determining Minimum Ancillary Service Requirements, specifically ERCOT analysis to support the increased procurement of Non-Spin, past procurement requirements to new, cost/benefit and path of diminished returns, and the definition of “conservative operations”.

*Emergency Conditions List Review/Update*

Mr. Velasquez summarized the disposition of WMS items on the Emergency Conditions List as discussed at the November 29, 2021 TAC meeting, reviewed the process for assignments of open items to WMS and WMS Working Groups, and presented the updated WMS List. Market discussed the items and offered clarifications. There were no objections.

New Protocol Revision Subcommittee (PRS) Referrals (see Key Documents)

*Nodal Protocol Revision Request (NPRR) 1100, Emergency Switching Solutions for Energy Storage Resources*

Arushi Sharma Frank summarized NPRR1100, discussion at the October 26, 2021 NPRR1100 Workshop, and the 11/3/21 Tesla comments, and requested review of the issues by the Metering Working Group (MWG). Market Participants requested review of the issues by the MWG and the WMWG. Mr. Velasquez noted this item could be considered for inclusion in the [Combined Ballot.](#Combined_Ballot)

*NPRR1108, ERCOT Shall Approve or Deny All Resource Outage Requests – Urgent*

Dan Woodfin summarized NPRR1108 and the request for Urgent Status. Some Market Participants expressed concern for the unintended consequences of NPRR1108 and requested review of the issues at WMWG. Mr. Velasquez noted this item could be considered for inclusion in the [Combined Ballot.](#Combined_Ballot)

WMS Revision Requests(see Key Documents)

*Impact Analysis*

*Verifiable Cost Manual Revision Request (VCMRR) 032, Calculation of Average Running Hours per Start when Determining the Variable O&M for QSGRs*

Market Participants reviewed the Impact Analysis for VCMRR032. Mr. Velasquez noted this item could be considered for inclusion in the [Combined Ballot.](#Combined_Ballot)

Wholesale Market Working Group (WMWG) (see Key Documents)

Murali Sithuraj reviewed WMWG activities.

Revision Requests Tabled at Protocol Revision Subcommittee (PRS) or TAC, and Referred to WMS (see Key Documents)

*NPRR981, Day-Ahead Market Price Correction Process*

*NPRR1058, Resource Offer Modernization for Real-Time Co-Optimization*

*NPRR1067, Market Entry Qualifications, Continued Participation Requirements, and Credit Risk Assessment*

*NPRR1070, Planning Criteria for GTC Exit Solutions*

*NPRR1088, Applying Forward Adjustment Factors to Forward Market Positions and Un-applying Forward Adjustment Factors to Prior Market Positions*

*NPRR1096, Require Sustained Six Hour Capability for ECRS and Non-Spin*

*Other Binding Document Revision Request (OBDRR) 026, Change Shadow Price Caps to Curves and Remove Shift Factor Threshold*

WMS took no action on these items.

*NPRR1084, Improvements to Reporting of Resource Outages and Derates*

Mr. Sithuraj summarized NPRR1084 discussion at the 11/15/21 WMWG meeting, and noted WMWG was not in consensus regarding NPRR1084. Some Market Participants requested additional time to review the issues. WMS took no action on this item.

*NPRR1092, Remove RUC Offer Floor*

Mr. Sithuraj summarized NPRR1092 discussion at the 11/15/21 WMWG meeting in review of ERCOT analysis, stated that WMWG was not in consensus regarding NPRR1092 as some Market Participants wanted to advance NPRR1092, others offered alternate solutions, and others wanted to await further direction from the Public Utility Commission of Texas (PUCT). Carrie Bivens noted the Independent Market Monitor (IMM) desire for WMS to advance NPRR1092 with the 11/19/21 IMM comments. **Mr. Greer moved to endorse NPRR1092 as amended by the 11/19/21 IMM comments.** The motion failed for lack of second. Market Participants further discussed the heat-rate multiplier in determining the offer floor, opt-out provisions, and the pending consideration of Operating Reserve Demand Curve (ORDC) issues at the December 2, 2021 PUCT Open meeting. Mr. Velasquez stated that WMS would consider NPRR1092 at the January 5, 2022 meeting.

*NPRR1099, Managing Network Operations Model Resource Nodes*

Alfredo Moreno summarized NPRR1099, the 11/24/21 ERCOT comments, and previous discussions at WMWG meetings, and requested WMS advance NPRR1099 in consideration of moving forward with OBDRR034, Related to NPRR1099, Managing Network Operations Model Resource Nodes to be considered at the January 26, 2022 TAC meeting. Mr. Velasquez noted this item could be considered for inclusion in the [Combined Ballot.](#Combined_Ballot)

Market Credit Working Group (see Key Documents)

Brenden Sager reviewed MCWG activities.

Congestion Management Working Group (CMWG) (see Key Documents)

Katie Rich reviewed CMWG activities.

*Nodal Operating Guide Revision Request (NOGRR) 215, Limit Use of Remedial Action Schemes*

WMS took no action on this item.

ERCOT Operations and Market Items (see Key Documents)

*Fast-Frequency Response (FFR) Advancement Project Update*

Matt Mereness stated that after consideration of Market Participant challenges in a December 2021 go-live for the FFR project, ERCOT now anticipates a release date of no sooner than May 2022, with date to be determined, and announced the December 7, 2021 Technical Workshop for the FFR Advancement Project.

Revision Requests Tabled at WMS (see Key Documents)

*VCMRR031, Clarification Related to Variable Costs in Fuel Adders*

WMS took no action on this item.

Combined Ballot

**Mr. Greer moved to approve the Combined Ballot as follows:**

* **To request PRS continue to table NPRR1100 for further discussion by MWG and WMWG**
* **To request PRS continue to table NPRR1108 for further discussion by WMWG**
* **To endorse and forward to TAC the 11/3/21 WMS Report and Impact Analysis for VCMRR032**
* **To endorse NPRR1099 as amended by the 11/24/21 ERCOT comments**

**Diana Coleman seconded the motion. The motion carried unanimously via roll call vote.** *(Please see ballot posted with Key Documents.)*

Demand Side Working Group (DSWG) (see Key Documents)

Christian Powell reviewed DSWG activities.

Other Business

Mr. Velasquez expressed appreciation for ERCOT Staff efforts in supporting the Stakeholder process in 2021.

*No Report*

* Market Settlement Working Group (MSWG)
* Metering Working Group (MWG)
* Resource Cost Working Group (RCWG)
* Supply Analysis Working Group (SAWG)

Adjournment

Mr. Velasquez adjourned the December 1, 2021 WMS meeting at 12:36 p.m.

1. Key Documents referenced in these minutes may be accessed on the ERCOT website at:

https://www.ercot.com/calendar/event?id=1600786112560 [↑](#footnote-ref-1)