**APPROVED**

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

**ERCOT Austin – 7620 Metro Center Drive – Austin, Texas 78744**

**Wednesday, August 8, 2018 – 9:30 a.m.**

Attendance

*Members:*

|  |  |  |
| --- | --- | --- |
| Barnes, Bill | Reliant Energy Retail Services |  |
| Bierschbach, Erika | Austin Energy |  |
| Caraway, Shannon | Solar Prime |  |
| Carpenter, Jeremy | Tenaska Power Services |  |
| Coleman, Diana | OPUC |  |
| Downey, Marty | Electranet Power |  |
| Evans, Mike | Brazos Electric Cooperative |  |
| Goff, Eric | Citigroup Energy |  |
| Greer, Clayton | Morgan Stanley |  |
| Gross, Blake | AEP Service Corporation |  |
| Johnson, Anthony | CenterPoint Energy |  |
| Kee, David | CPS Energy |  |
| Lange, Clif | South Texas Electric Cooperative |  |
| Lindberg, Ken | Bryan Texas Utilities |  |
| Maduzia, Franklin | Dow Chemical |  |
| Mauldin, Jamie | City of Eastland |  |
| Morris, Sandy | Direct Energy |  |
| Robertson, Jennifer | LCRA | Alt. Rep. for John Dumas |
| Shaw, Marka | Exelon |  |
| Smith, Mark | Nucor |  |
| Such, Chris | E.ON |  |
| Surendran, Resmi | Shell Energy |  |
| Whittle, Brandon | Calpine Energy Solutions | Alt. Rep. for Clint Sandidge |
| Wilson, Joe Dan | Golden Spread Electric Cooperative |  |
| Woodruff, Taylor | Oncor |  |

The following proxies were assigned:

* Brad Schwarz to Blake Gross
* Clif Lange to Jennifer Robertson at 2:00 p.m.

*Guests:*

|  |  |  |
| --- | --- | --- |
| Abbott, Kristin | PUCT | Via Teleconference |
| Ainspan, Malcolm | NRG | Via Teleconference |
| Bruce, Mark | Cratylus Advisors |  |
| Burke, Tom | Golden Spread Electric Cooperative | Via Teleconference |
| Cripe, Ramsey | Schneider Engineering | Via Teleconference |
| Crouch, Rebekah | New Braunfels Utilities | Via Teleconference |
| De La Rosa, Lewis | Texas Reliability Entity | Via Teleconference |
| Eckhoff, Christina | Texas Reliability Entity | Via Teleconference |
| Fossum, Drew | Tenaska Power Services |  |
| Haley, Ian | Luminant Generation |  |
| Harris, Brenda | Oxy | Via Teleconference |
| Henry, Mark | Texas Reliability Entity |  |
| Henson, Martha | Oncor |  |
| Howe, Larry | Texas Solar Energy Society | Via Teleconference |
| Hudis, Gabrilla | Gabel Associates | Via Teleconference |
| Hughes, Darren | LCRA | Via Teleconference |
| Jonas, Todd | Tenaska Power Services |  |
| Jones, Liz | Oncor | Via Teleconference |
| Kroskey, Tony | Brazos Electric | Via Teleconference |
| Kueker, Dan | Brazos Electric | Via Teleconference |
| Lee, Jim | AEP Service Corporation |  |
| Lookadoo, Heddie | NRG | Via Teleconference |
| Paff, Tom | Duke Energy | Via Teleconference |
| Powell, Christian | Pedernales Electric Cooperative |  |
| Reedy, Steve | Potomac Economics |  |
| Reid, Walter | Wind Coalition |  |
| Robinson, Rhonda | Calpine | Via Teleconference |
| Rollow, Brett | Pattern Energy | Via Teleconference |
| Ross, Richard | AEP Service Corporation |  |
| Siddiqi, Shams | Crescent Power | Via Teleconference |
| Smith, Caitlin | Jewell and Associates |  |
| Stanfield, Leonard | Invenergy |  |
| True, Roy | ACES Power | Via Teleconference |
| Turner, Lucas | South Texas Electric Cooperative | Via Teleconference |
| Valerio, Cristian | CPS Energy | Via Teleconference |
| Van Booven, Ashley | New Braunfels Utilities | Via Teleconference |
| Wallin, Shane | DME |  |
| Watson, Mark | S&P Global | Via Teleconference |
| Whitworth, Doug | Texas Reliability Entity | Via Teleconference |
| Wieck, John | Golden Spread Electric Cooperative | Via Teleconference |
| Wittmeyer, Bob | DME |  |

*ERCOT Staff:*

|  |  |  |
| --- | --- | --- |
| Albracht, Brittney |  | Via Teleconference |
| Anderson, Connor |  |  |
| Bigbee, Nathan |  |  |
| Bivens, Carrie |  |  |
| Bracy, Phil |  | Via Teleconference |
| Butterfield, Lindsay |  |  |
| Chang, Sean |  | Via Teleconference |
| Clifton, Suzy |  |  |
| Gleason, Brandon |  |  |
| Gonzalez, Ino |  |  |
| Hailu, Ted |  |  |
| Hanson, Kevin |  | Via Teleconference |
| Hilliard, Marie |  | Via Teleconference |
| Hughes, Lindsey |  | Via Teleconference |
| Jones, Dan |  |  |
| Kane, Erika |  | Via Teleconference |
| Lasher, Warren |  |  |
| Liu, Cong |  | Via Teleconference |
| Maggio, Dave |  |  |
| Mago, Nitika |  | Via Teleconference |
| Mereness, Matt |  | Via Teleconference |
| Moorty, Sai |  | Via Teleconference |
| Morehead, Juliana |  | Via Teleconference |
| Moreno, Alfredo |  | Via Teleconference |
| Ögelman, Kenan |  |  |
| Orr, Rob |  | Via Teleconference |
| Phillips, Cory |  |  |
| Roberts, Randy |  | Via Teleconference |
| Rosel, Austin |  |  |
| Ruane, Mark |  |  |
| Shanks, Magie |  | Via Teleconference |
| Shaw, Pam |  |  |
| Smith, Nathan |  | Via Teleconference |
| Thompson, Chad |  | Via Teleconference |
| Wattles, Paul |  | Via Teleconference |
| Zhang, Wen |  | Via Teleconference |

***Unless otherwise indicated, all Market Segments were present for a vote.***

Antitrust Admonition

David Kee directed attention to the Antitrust Admonition, which was displayed.

Agenda Review

Mr. Kee reviewed items scheduled for a vote at this meeting and noted changes to the order for which items would be taken up.

Approval of WMS Meeting Minutes (see Key Documents)[[1]](#footnote-1)

*July 11. 2018*

**Diana Coleman moved to approve the July 11, WMS meeting minutes as submitted. Blake Gross seconded the motion. The motion carried unanimously.**

Technical Advisory Committee (TAC) Update and Assignments

Mr. Kee reviewed the disposition of items considered at the July 26, 2018 TAC meeting and encouraged Market Participants to view the Real-Time co-optimization presentation given by the Independent Market Monitor (IMM) at the August 7, 2018 ERCOT Board of Directors meeting, archived at <http://texasadmin.com/tx/ercot/board_of_director_meeting/20180807/>

ERCOT Operations and Market Items (see Key Documents)

*Switchable Generation Resources Update*

ERCOT Staff noted the recent Market Participant comments received regarding the legal basis for reliability

based switch directives by ERCOT as requested at the July 11, 2018 WMS meeting, requested additional time to review, and offered to present responses and an update of the negotiations with other Reliability Coordinators at the September 5, 2018 WMS meeting. ERCOT Staff and Market Participants discussed the issues of Make-Whole Payments, local price signals, voltage pricing, contract penalties, and the current release process for switchable units. ERCOT Staff stated that they intended to bring forward a Revision Request to clarify the current release process for switchable units and that the Settlement issues can be addressed in subsequent Revision Requests. Market Participants expressed concern for identifying all the potential areas for compensation in Reliability Unit Commitments (RUCs) for Switchable Generation Resources and the mechanism needed to resolve local pricing issues. Mr. Kee referred the issues to the Qualified Scheduling Entity (QSE) Managers Working Group (QMWG).

*Unregistered Distributed Generation (DG) Report 2018 Q2 Update*

Conner Anderson presented the 2nd Quarter 2018 Unregistered DG Report.

*Confidentiality in discussing Congestion Events Update*

Carrie Bivens summarized the issue of posting data that is on the Market Information System (MIS) Secure Area on the public calendar page for a working group and corresponding discussions at previous Congestion Management Working Group (CMWG) meetings, stating that ERCOT will review internally prior to posting sensitive information for future meetings.

*Settlement Stability Report*

Austin Rosel presented the 2nd Quarter 2018 Settlement Stability Report. In response to Market Participant questions on the high uplift charges in June 2018, ERCOT Staff stated that congestion was the primary contributor and that improvements in the congestion situation in the west zone resulted in an uplift component of almost zero in July 2018. ERCOT Staff summarized previous discussions at CMWG and stated other events could drive potential congestion and create an imbalance in the Revenue Neutrality Allocation (RENA) and offered to host a workshop to identify the components of RENA.

*SCT Determination Summary for Directive 10, Emergency Condition Price Formation*

Dan Jones presented the recommendation for the Southern Cross Transmission Directive 10, Emergency Condition Price Formation, reviewed the history of NPRR768, Revisions to Real-Time On-Line Reliability Deployment Price Adder Categories, implemented to mitigate out of market actions that may occur during emergency conditions, and summarized Stakeholder comments and discussions at previous QMWG meetings. Some Market Participants expressed support for the recommendation and stated that NPRR768 addresses the current issue of price formation and that if clarifications are needed when the Southern Cross Transmission project is finalized, additional Revision Requests may be filed. Other Market Participants opposed the recommendation and stated that further analysis of the price formation issue is needed. ERCOT Staff reviewed the timeline for providing a response to the Public Utility Commission of Texas (PUCT) regarding Directive 10. Market Participants requested additional time to review the recommendation.

**Mark Smith moved to table consideration of the recommendation for the Southern Cross Transmission Directive 10, Emergency Condition Price Formation, for one month. Eric Goff seconded the motion. The motion carried unanimously.**

*July 18, 2018 Real-Time Price Correction Questions*

Dave Maggio summarized the July 18, 2018 Real-Time price correction event and confirmed it was due to a software error.

New Protocol Revision Subcommittee (PRS) Referrals

*Nodal Protocol Revision Request (NPRR) 880, Publish Real-Time Market Shift Factors for Private Use Network Settlement Points*

**Brandon Whittle moved to endorse NPRR880 as submitted. Shannon Caraway seconded the motion. The motion carried unanimously.**

*NPRR883, Adjustment to Settlement Equation for Ancillary Services Assignment*

**Mr. Whittle moved to endorse NPRR883 as submitted. Mr. Caraway seconded the motion. The motion carried unanimously.**

*NPRR884, Adjustments to Pricing and Settlement for Reliability Unit Commitments (RUCs) of On-Line Combined Cycle Generation Resources*

Mr. Maggio reviewed the merits of NPRR884 and Other Binding Document Revision Request (OBDRR) 006, Alignment of ORDC OBD with NPRR884, Adjustments to Pricing and Settlement for Reliability Unit Commitments (RUCs) of On-Line Combined Cycle Generation Resources. Market Participants expressed concern for the process and Settlement equations presented in NPRR884 and requested additional review by the Market Settlement Working Group (MSWG) and QMWG.

**Bill Barnes moved to request PRS continue to table NPRR884 to allow further review by MSWG and QMWG. Mr. Gross seconded the motion. The motion carried unanimously.**

*NPRR885, Must-Run Alternative (MRA) Details and Revisions Resulting from PUCT Project No. 46369, Rulemaking Relating to Reliability Must-Run Service*

Ino Gonzalez summarized the history of NPRR885 and NPRR862, Updates to Address Revisions under PUCT Project 46369, and stated that NPRR862 was approved at the August 7, 2018 ERCOT Board of Directors meeting. Market Participants expressed concern for the MRA process stating that it provides counterproductive incentives and impacts pricing when deployed. ERCOT Staff reviewed the timeline and need to align the Protocols with P.U.C. Subst. R. 25.502, Pricing Safeguards in Markets Operated by the Electric Reliability Council of Texas. Market Participants requested additional review of the issues by the Demand Side Working Group (DSWG) and QMWG. In review of the meeting schedule for DSWG, Mr. Goff, Chair of QMWG, offered to host a meeting and invite DSWG to review the MRA issue and Load Resource deployments for local congestion that was previously assigned to both working groups.

**Clayton Greer moved to request PRS continue to table NPRR885 to allow further review by QMWG. Mr. Goff seconded the motion. The motion carried unanimously.**

OBDRR003, Change Validation Rules to Preclude Certain Transactions at Resource Nodes within Private Use Networks

Ms. Bivens noted that System Change Request (SCR) 796, Change Validation Rules to Preclude Certain Transactions at Resource Nodes within Private Use Networks, was approved at the August 7, 2018 ERCOT Board of Directors meeting.

**Mr. Greer moved to endorse OBDRR003 as amended by the 7/13/18 ERCOT comments with an effective date of upon system implementation of SCR796 for grey-boxed language and August 10, 2018 for remaining language. Mr. Goff seconded the motion. The motion carried unanimously.**

OBDRR007, Revisions to the ORDC Methodology to Include Photo-Voltaic Generation Resources (PVGRs)

Mr. Maggio summarized OBDRR007 and reviewed the history of excluding PVGRs. ERCOT Staff and Market Participants discussed the issue of capacity curtailments, reserves, and the Operating Reserve Demand Curve (ORDC) methodology. Mr. Kee requested that CMWG review the issue of whether capacity curtailed for purposes of base case violations should be included in ORDC reserve calculations.

**Mr. Caraway moved to endorse OBDRR007 as submitted. Mr. Barnes seconded the motion. The motion carried unanimously.**

Revision Requests Tabled at PRS, Referred to WMS (see Key Documents)

*NPRR838, Updated O&M Cost for RMR Resources*

*NPRR863, Creation of Primary Frequency Response Service Product and Revisions to Responsive Reserve*

*NPRR871, Customer or Resource Entity Funded Transmission Projects Review Process*

*NPRR872, Modifying the SASM Shadow Price Cap*

*NPRR879, SCED Base Point and Performance Evaluation Changes for IRRs that Carry Ancillary Services*

WMS took no action on these items.

*NPRR850, Market Suspension and Restart*

**Mr. Goff moved to endorse NPRR850 as amended by the 5/17/18 ERCOT comments. Marty Downey seconded the motion. The motion carried unanimously.**

MSWG (see Key Documents)

Heddie Lookadoo summarized recent MSWG activities, including the review of shortfall occurrences in the Congestion Revenue Rights (CRR) balancing account. Mr. Kee requested MSWG and CMWG review the drivers that impact CRRs and the pros and cons of increasing the CRR Balancing Account.

Market Credit Working Group (MCWG) (see Key Documents)

Mr. Barnes summarized recent MCWG activities, including the Credit Parameter review.

Working Group Enhancements (TAC/Subcommittee Structural and Procedural Review)

Mr. Kee noted that the Annual TAC/Subcommittee Structural and Procedural Review would be in September 2018 and encouraged Working Groups to review their scope and open action items, consider the frequency of meetings, and bring forward any proposed meeting efficiencies.

Other Business

*Real-Time Co-Optimization and Marginal Losses Analysis Update*

Mr. Jones summarized details of the July 27, 2018 Market Notice and stated that following the filing of the IMM and ERCOT reports concerning impacts of Real-Time co-optimization and Marginal Losses in PUCT Project No. 47199, Project to Assess Price-Formation Rules in ERCOT’s Energy-Only Market, the PUCT opened two separate projects: PUCT Project No. 48539, Review of the Inclusion of Marginal Losses in Security-Constrained Economic Dispatch, and PUCT Project No. 48540, Review of Real-Time Co-Optimization in the ERCOT Market. Mr. Jones stated that a forthcoming technical workshop will be scheduled following the August 9, 2018 Open Meeting and encouraged Market Participants to submit questions or comments on the reports to Dan Jones at [Dan.Jones@ercot.com](mailto:Dan.Jones@ercot.com) in advance of the workshop.

*Discrepancy in calculation of Real-Time Locational Marginal Prices at logical Resource Node for On-Line Combined Cycle Generation Resources*

Mr. Maggio summarized details of the August 6, 2018 Market Notice, stated that the two discrepancies between the Protocols and ERCOT systems had a limited impact on prices in the Real-Time Market (RTM) and reviewed the short term solutions, including a system change and the filing of an urgent Revision Request until a longer term solution could proceed through the Stakeholder process.

*Summer RUC review*

Market Participants requested ERCOT provide a review of the Summer 2018 RUC activity at the September 5, 2018 WMS Meeting.

*Review of Open Action Items*

“Review inclusion of QSE with Resources on hot line calls so they have appropriate procedures in place” was removed from the Open Action Items list. Mr. Kee requested WMS Working Group leadership review their open action items and provide an update at the September 5, 2018 WMS meeting.

*No Report*

* CMWG
* DSWG
* Metering Working Group (MWG)
* QMWG
* Resource Cost Working Group (RCWG)
* Supply Analysis Working Group (SAWG)

Adjournment

Mr. Kee adjourned the August 8, 2018 WMS meeting at 3:04 p.m.

1. <http://www.ercot.com/calendar/2018/8/8/141124-WMS> [↑](#footnote-ref-1)