**APPROVED**

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

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

**Wednesday, July 11, 2018 – 9:30 a.m.**

Attendance

*Members:*

|  |  |  |
| --- | --- | --- |
| Barnes, Bill | Reliant Energy Retail Services |  |
| Bierschbach, Erika | Austin Energy |  |
| Carpenter, Jeremy | Tenaska Power Services |  |
| Coleman, Diana | OPUC |  |
| Downey, Marty | Electranet Power | Via Teleconference |
| Evans, Mike | Brazos Electric Cooperative |  |
| Franklin Russell | Garland Power and Light |  |
| Goff, Eric | Citigroup Energy |  |
| Gross, Blake | AEP Service Corporation |  |
| Johnson, Anthony | CenterPoint Energy |  |
| Kee, David | CPS Energy |  |
| Lange, Clif | South Texas Electric Cooperative |  |
| Lindberg, Ken | Bryan Texas Utilities |  |
| Mauldin, Jamie | City of Eastland |  |
| Morris, Sandy | Direct Energy |  |
| Paez, Richard | Infinite Energy | Alt. Rep. for Steve Madden  Via Teleconference |
| 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:

* Franklin Maduzia to Mark Smith
* Shannon Caraway to Chris Such
* Clayton Greer to Eric Goff
* Brad Schwarz to Blake Gross

*Guests:*

|  |  |  |
| --- | --- | --- |
| Abbott, Kristin | PUCT | Via Teleconference |
| Ainspan, Malcolm | NRG | Via Teleconference |
| Anderson, Kevin | Customized Energy Solutions | Via Teleconference |
| Berend, Matthew | AB Power Advisors | Via Teleconference |
| Boisseau, Heather | LCRA | Via Teleconference |
| Brandt, Adrianne | PUCT | Via Teleconference |
| Bruce, Mark | Cratylus Advisors | Via Teleconference |
| Bruno, Mariana | GDS Associates | Via Teleconference |
| Bryant, Mark | PUCT | Via Teleconference |
| Bunch, Kevin | EDF Energy Services |  |
| Burke, Tom | Golden Spread Electric Cooperative | Via Teleconference |
| Carter, Tim | MP2 Energy | Via Teleconference |
| Cochran, Seth | DC Energy |  |
| Detelich, David | CPS Energy | Via Teleconference |
| Donohoo, Ken | EPE Consulting |  |
| Eckhoff, Christina | Texas Reliability Entity | Via Teleconference |
| Elliott, Christopher | Bank of America Merrill Lynch | Via Teleconference |
| Haley, Ian | Luminant Generation |  |
| Harris, Brenda | Oxy | Via Teleconference |
| Harvey, Julia | Texas Electric Cooperatives | Via Teleconference |
| Henderson, Natasha | Golden Spread Electric Cooperative | Via Teleconference |
| Henson, Martha | Oncor | Via Teleconference |
| Hudis, Gabrilla | Gabel Associates | Via Teleconference |
| Huynh, Thuy | Potomac Economics | Via Teleconference |
| Jonas, Todd | Tenaska Power Services |  |
| Juricek, Michael | Oncor | Via Teleconference |
| Lookadoo, Heddie | NRG | Via Teleconference |
| McKinney, Kyle | Golden Spread Electric Cooperative | Via Teleconference |
| Nease, Nelson | API |  |
| Paff, Tom | Duke Energy | Via Teleconference |
| Powell, Christian | LCRA |  |
| Reedy, Steve | Potomac Economics |  |
| Reid, Walter | Wind Coalition |  |
| Rodriguez, Jenny | CPS Energy | Via Teleconference |
| Sams, Bryan | NRG |  |
| Schwertner, Ray | Garland Power and Light |  |
| Siddiqi, Shams | Crescent Power |  |
| Sithuraj, Murali |  |  |
| 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 |
| Varnell, John | Tenaska | Via Teleconference |
| Velasquez, Ivan | Oncor |  |
| Whitworth, Doug | Texas Reliability Entity | Via Teleconference |
| Wieck, John | Golden Spread Electric Cooperative | Via Teleconference |
| Wittmeyer, Bob | DME |  |
| Younger, Joseph | Texas Reliability Entity | Via Teleconference |

*ERCOT Staff:*

|  |  |  |
| --- | --- | --- |
| Albracht, Brittney |  | Via Teleconference |
| Anderson, Connor |  | Via Teleconference |
| Bigbee, Nathan |  |  |
| Bivens, Carrie |  |  |
| Bracy, Phil |  | Via Teleconference |
| Butterfield, Lindsay |  |  |
| Chang, Sean |  | Via Teleconference |
| Clifton, Suzy |  |  |
| Duyck, Quentin |  |  |
| Gonzalez, Ino |  |  |
| Guo, Jack |  | Via Teleconference |
| Hanson, Kevin |  | Via Teleconference |
| Hilliard, Marie |  | Via Teleconference |
| Hughes, Lindsey |  | Via Teleconference |
| Jones, Dan |  |  |
| Kane, Erika |  | Via Teleconference |
| Mago, Nitika |  | Via Teleconference |
| Matevosjana, Julia |  | Via Teleconference |
| Maul, Donald |  |  |
| Mereness, Matt |  | Via Teleconference |
| Mickey, Joel |  |  |
| Morehead, Juliana |  |  |
| Moreno, Alfredo |  | Via Teleconference |
| Ögelman, Kenan |  |  |
| Perez, Henry |  |  |
| Phillips, Cory |  |  |
| Rios, Diana |  | Via Teleconference |
| Roberts, Randy |  | Via Teleconference |
| Rosel, Austin |  |  |
| Ruane, Mark |  |  |
| Shanks, Magie |  | Via Teleconference |
| Shaw, Pam |  |  |
| Smith, Nathan |  | Via Teleconference |
| Stice, Clayton |  |  |
| Thomas, Shane |  | Via Teleconference |
| Tucker, Don |  |  |
| 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)

*June 6, 2018*

**Diana Coleman moved to approve the June 6, 2018 WMS meeting minutes as submitted. Clif Lange seconded the motion. The motion carried unanimously.**

Technical Advisory Committee (TAC) Update and Assignments (see Key Documents)

Mr. Kee reminded Market Participants that neither TAC nor the ERCOT Board had met since the last WMS meeting. Mr. Kee stated that he and Resmi Surendran, WMS Vice Chair, recently met with Public Utility Commission of Texas (PUCT) Staff and presented WMS priorities.

ERCOT Operations and Market Items (see Key Documents)

*Switchable Generation Resources Update*

Nathan Bigbee presented the legal basis for reliability based switch directives by ERCOT in an emergency situation, stated that ERCOT’s exercise of its authority is consistent with the Public Utility Regulatory Act (PURA), PUCT Rules, North American Electric Reliability Corporation (NERC) Reliability Standards and ERCOT Protocols, and provided an update on ERCOT’s efforts in negotiating agreements with other Reliability Coordinators, including the Midcontinent Independent System Operator (MISO), Southwest Power Pool (SPP), and the independent system operator for Mexico, El Centro Nacional de Control de Energía (CENACE). In response to Market Participant questions on uplift costs and changes to the Settlement structure, Kenan Ögelman reminded Market Participants that ERCOT intends 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 and ERCOT Staff further discussed the issues of Reliability Unit Commitments (RUCs), dueling emergency situations, and deregistering with ERCOT. Mr. Bigbee encouraged Market Participants to submit written inquiries to ERCOT Legal, Nathan Bigbee at [Nathan.Bigbee@ercot.com](mailto:Nathan.Bigbee@ercot.com) and Brandon Gleason at [Brandon.Gleason@ercot.com](mailto:Brandon.Gleason@ercot.com) by July 25, 2018, and stated that responses would be provided at the August 8, 2018 WMS meeting.

New Protocol Revision Subcommittee (PRS) Referrals

*Nodal Protocol Revision Request (NPRR) 879, SCED Base Point and Performance Evaluation Changes for IRRs that Carry Ancillary Services*

ERCOT Staff requested additional time to add clarifications to synchronize the Base Point. Market Participants expressed concern for the accuracy of the five-minute intra-hour forecast and using separate metrics to measure performance of Intermittent Renewable Resources (IRRs) carrying Ancillary Service responsibilities and requested additional review by the Qualified Scheduling Entity (QSE) Managers Working Group (QMWG).

**Jeremy Carpenter moved to request PRS continue to table NPRR879 to allow additional time for review by QMWG. Mr. Lange seconded the motion. The motion carried unanimously.**

Impact Analysis Review

*VCMRR022, Determination of Fuel Adder Price for Coal and Lignite Resources*

Market Participants and ERCOT Staff discussed the Impact Analysis and appropriate priority and rank for Verifiable Cost Manual Revision Request (VCMRR) 022.

**Bill Barnes moved to endorse and forward to TAC the 6/6/18 WMS Report and Impact Analysis for VCMRR022 with a recommended priority of 2018 and rank of 2260. Mr. Lange 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 reviewed the history of NPRR885 and NPRR862, Updates to Address Revisions under PUCT

Project 46369. Mr. Gonzalez summarized the issues addressed in NPRR885, including the types of Resources that can qualify for an MRA, the related rules, Settlement structure and the contract form. In response to Market Participant questions on potential changes to the ERCOT evaluation process to avoid a high cost MRA or Reliability Must-Run (RMR) Service and price formation, Mr. Gonzalez stated those issues will be addressed in future Revision Requests. Market Participants and ERCOT Staff discussed the Impact Analysis and the cost benefit analysis of contracting for an MRA verses RMR. Market Participants that supported NPRR885 stated that this is one of a series of Revision Requests to implement PUCT rules and noted that NPRR862 did not have cost impacts.

Other Binding Document Revision Request (OBDRR) 003, Change Validation Rules to Preclude Certain Transactions at Resource Nodes within Private Use Networks

Mr. Kee reminded Market Participants that this item remains tabled until System Change Request (SCR) 796, Change Validation Rules to Preclude Certain Transactions at Resource Nodes within Private Use Networks, is approved by the ERCOT Board. WMS took no action on this item.

QMWG (see Key Documents)

Eric Goff reviewed recent QMWG activities and summarized discussions regarding Revision Requests assigned to QMWG. Mr. Goff provided an update on the May 1 and May 2, 2018 events wherein ERCOT deployed Non-Spinning Reserve (Non-Spin) to resolve congestion and requested WMS direction on further discussion of the methodology for procuring and deploying it. Market Participants and ERCOT Staff discussed the issues of Non-Spin, Security-Constrained Economic Dispatch (SCED), and RUC in resolving the congestion constraint. Mr. Kee requested QMWG evaluate how Non-Spin is described in the Protocols and how it is procured and deployed, and provide recommendations to WMS.

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

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

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

WMS took no action on these items.

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

Market Participants discussed the vetting of NPRR838 by the Resource Cost Working Group (RCWG) and QMWG and the proposed fixed, default value of $100/Megawatt Hour (MWh) for Operations and Maintenance (O&M) to be used in the calculation of the Mitigation Offer Cap (MOC) curve as outlined in the 7/9/18 ERCOT comments to NPRR838. Some Market Participants opined that a value of $100/MWh may be too low and requested QMWG reconsider if NPRR826, Mitigated Offer Caps for RMR Resources is a better solution.

*NPRR850, Market Suspension and Restart*

Mr. Goff stated that NPRR850 was discussed extensively at previous QMWG meetings and reminded Market Participants that the intent was to use broad language for the initial concepts and that specificity can be proposed in future Revision Requests. Mr. Barnes requested additional time to review NPRR850. Mr. Kee stated NPRR850 will be considered at the August 8, 2018 WMS meeting.

*NPRR869, Clarification of Language Related to Generation Netting for ERCOT-Polled Settlement Meters*

Bryan Sams reviewed the merits of NPRR869. Some Market Participants expressed concern for expanding the netting exemption without evaluating the basis of the exemption and if it is still applicable today. ERCOT Staff reviewed the exemption that was historically applied only to thermal hosts. Other Market Participants expressed support for NPRR869 and stated that expanding the netting exemption for all types of Qualifying Facilities (QFs) allows them to be more responsive to customer needs.

**Mark Smith moved to endorse NPRR869 as amended by the 7/3/18 ERCOT comments. Mr. Barnes seconded the motion. The motion carried with seven abstentions from the Cooperative (2) (Exelon and STEC), Independent Generator (3) (Calpine, E.ON, Solar Prime), Independent Power Marketer (IPM) (1) (Shell Energy), and Municipal (BTU) Market Segments.**

*NPRR872, Modifying the SASM Shadow Price Cap*

Mr. Goff summarized the QMWG discussions on NPRR872 and requested additional direction from WMS. Some Market Participants opined that the incentives to participate are in place and that until the implementation of Real-Time co-optimization, changes are not needed. Other Market Participants expressed concerns that prices in the Supplemental Ancillary Service Market (SASM) reflect the value it provides, that it is not the same value in the Day-Ahead Market (DAM), and that further analysis may be needed on the percentages that define the breaks in the demand curve. Mr. Kee requested QMWG review the risk tolerance and market impacts and determine the appropriate cap. Ms. Surendran requested QMWG also review the initial issues around SASM and determine if the Settlement issue was resolved.

Market Settlement Working Group (MSWG) (see Key Documents)

*2018 MSWG Leadership*

**Sandy Morris moved to confirm Heddie Lookadoo as the 2018 MSWG Chair and John Moschos as 2018 MSWG Vice Chair. Ms. Coleman seconded the motion. The motion carried unanimously.**

*MSWG Scope*

Ms. Lookadoo reviewed recent MSWG activities and presented the MSWG Scope.

**Mr. Goff moved to approve the MSWG Scope as submitted. Joe Dan Wilson seconded the motion. The motion carried unanimously.**

Emerging Technologies Working Group (ETWG)

Market Participants discussed the utility of the ETWG.

**Mr. Goff moved to disband the ETWG. Mr. Barnes seconded the motion. The motion carried unanimously.**

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

Mr. Barnes reviewed recent MCWG activities.

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

Ian Haley discussed recent CMWG activities including review of appropriate limits on NPRR871, Customer or Resource Entity Funded Transmission Projects Review Process, and management of West Texas constraints. Some Market Participants expressed concern for the issue of expanded confidentiality and transparency in congestion events. Carrie Bivens offered to review the confidentiality issue and provide an update at the August 8, 2018 WMS meeting.

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

Tim Carter reviewed recent DSWG activities.

Supply Analysis Working Group (SAWG

Mr. Sams reviewed recent SAWG activities.

Other Business (see Key Documents)

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

Dan Jones reviewed ERCOT’s response in the Southern Cross Transmission Determination Summary for Directive 10, Emergency Condition Price Formation. Mr. Jones explained the endorsement process and encouraged Market Participants to provide comments to Pam Shaw at [Pamela.Shaw@ercot.com](mailto:Pamela.Shaw@ercot.com) prior to the August 8, 2018 WMS meeting. Mr. Kee stated the issue will be considered at the August 8, 2018 WMS meeting.

*RTC Analysis and Marginal Loss Analysis*

Market Participants requested ERCOT host a workshop on the recent Independent Market Monitor (IMM) analysis of Real-Time Co-optimization and Marginal Losses. Steve Reedy requested Market Participants and ERCOT Staff wait until after the 7/12/18 PUCT meeting to consider next steps.

*Working Group Leadership*

Mr. Kee requested WMS Working Group Leadership review their Open Action Items list and provide an update on the listed items in the monthly report to WMS.

*No Report*

* Metering Working Group (MWG)
* RCWG

Adjournment

Mr. Kee adjourned the July 11, 2018 WMS meeting at 12:26 p.m.

1. <http://www.ercot.com/calendar/2018/7/11/138546-WMS> [↑](#footnote-ref-1)