**APPROVED**

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

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

**Wednesday, September 5, 2018 – 9:30 a.m.**

Attendance

*Members:*

|  |  |  |
| --- | --- | --- |
| Barnes, Bill | Reliant Energy Retail Services |   |
| 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 | Via Teleconference |
| Robertson, Jennifer | LCRA | Alt. Rep. for John Dumas |
| Schwarz, Brad | Sharyland Utilities |  |
| 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 |  |
| Ye, Lei | Austin Energy  | Alt. Rep. for Erika Bierschbach |

The following proxies were assigned:

* Russell Franklin to Ken Lindberg
* Marka Shaw to Brandon Whittle at 11:30 a.m.

*Guests:*

|  |  |  |  |
| --- | --- | --- | --- |
| Abbott, Kristin | PUCT | Via Teleconference |  |
| Ashley, Kristy | Customized Energy Solutions |  |  |
| Basaran, Harika | Austin Energy | Via Teleconference |  |
| Blakey, Eric | Just Energy |  |  |
| Bruce, Mark | Cratylus Advisors | Via Teleconference |  |
| Bunch, Kevin | EDF Energy Services |  |  |
| Burke, Tom | Golden Spread Electric Cooperative | Via Teleconference |  |
| Clemenhagen, Barbara | Customized Energy Solutions |  |  |
| Cochran, Seth | DC Energy |  |  |
| Cripe, Ramsey | Schneider Engineering | Via Teleconference |  |
| Daigneault, Ralph | Potomac Economics |  |  |
| Detelich, David | CPS Energy | Via Teleconference |  |
| Eckhoff, Christina | Texas Reliability Entity | Via Teleconference |  |
| Elliott, Christopher | Bank Of America Merrill Lynch | Via Teleconference |  |
| English, Barksdale | PUCT | Via Teleconference |  |
| Gregg, Michele | OPUC | Via Teleconference |  |
| Haley, Ian | Luminant Generation |   |  |
| Harris, Brenda | Oxy | Via Teleconference |  |
| Harvey, Jenny | KONEKTIV | Via Teleconference |  |
| Henry, Mark | Texas Reliability Entity | Via Teleconference |  |
| Henson, Martha | Oncor |   |  |
| Hughes, Darren | LCRA | Via Teleconference |  |
| Jewell, Michael | Jewell and Associates |  |  |
| Jones, Randy | MMA LLC | Via Teleconference |  |
| Kroskey, Tony | Brazos Electric | Via Teleconference |  |
| Mayo, Tom |  |  |  |
| Powell, Christian | Pedernales Electric Cooperative |  |  |
| Reedy, Steve  | Potomac Economics |  |  |
| Reid, Walter | Wind Coalition |  |  |
| Ritch, John | NextEra Energy |  |  |
| Robinson, Rhonda | Calpine | Via Teleconference |  |
| Rochelle, Jennifer | Customized Energy Solutions | Via Teleconference |  |
| Rodriguez, Jenny | CPS Energy | Via Teleconference |  |
| Sams, Bryan | NRG |  |  |
| Siddiqi, Shams | Crescent Power |   |  |
| Smith, Caitlin | Jewell and Associates |  |  |
| Stanfield, Leonard | Invenergy |  |  |
| Trefny, Floyd |  |  |  |
| Turner, Lucas | South Texas Electric Cooperative | Via Teleconference |  |
| Van Booven, Ashley | New Braunfels Utilities | Via Teleconference |  |
| Velasquez, Ivan | Oncor | Via Teleconference |  |
| Wallin, Shane | DME |  |  |
| Wan, Josephine | Austin Energy | Via Teleconference |  |
| Whitworth, Doug | Texas Reliability Entity | Via Teleconference |  |
| Wittmeyer, Bob | DME |  |  |
| Younger, Joseph | Texas Reliability Entity | Via Teleconference |  |

*ERCOT Staff:*

|  |  |  |
| --- | --- | --- |
| Albracht, Brittney |  | Via Teleconference |
| Anderson, Connor |  | Via Teleconference |
| Billo, Jeff |  | Via Teleconference |
| Bivens, Carrie |  |  |
| Butterfield, Lindsay |  |  |
| Chang, Sean |  | Via Teleconference |
| Clifton, Suzy |  |  |
| Covington, Austin |  | Via Teleconference |
| Gonzalez, Ino |  |   |
| Hailu, Ted |  |  |
| Hilliard, Marie |  | Via Teleconference |
| Hughes, Lindsey |  | Via Teleconference |
| Jones, Dan |  |  |
| Krein, Steve |  | Via Teleconference |
| Maggio, Dave |  |  |
| Mago, Nitika |  | Via Teleconference |
| Mereness, Matt |  | Via Teleconference |
| Morehead, Juliana |  | Via Teleconference |
| Moreno, Alfredo |  | Via Teleconference |
| Phillips, Cory |  |   |
| Raish, Carl |  | Via Teleconference |
| Roberts, Randy |  | Via Teleconference |
| Rosel, Austin |  |   |
| Ruane, Mark |  |  |
| Shanks, Magie |  | Via Teleconference |
| Shaw, Pam |  |  |
| Smith, Nathan |  | Via Teleconference |
| Stice, Clayton |  | Via Teleconference |
| Sumruld, Lisa |  | Via Teleconference |
| Thomas, Shane |  | Via Teleconference |
| Thompson, Chad |  |   |
| Townsend, Aaron |  | Via Teleconference |
| Wattles, Paul |  | 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 and noted changes to the order for which items would be taken up.

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

*August 8, 2018*

**Blake Gross moved to approve the August 8, 2018 WMS meeting minutes as submitted. Anthony Johnson seconded the motion. The motion carried unanimously.**

Technical Advisory Committee (TAC) Update and Assignments

Mr. Kee reminded Market Participants that TAC had not met since the August 8, 2018 WMS meeting.

ERCOT Operations and Market Items (see Key Documents)

*Summer Assessment Discussion*

Carrie Bivens summarized the focus of the Summer Assessment that will be presented at the October 9, 2018 ERCOT Board meeting. In response to Market Participant requests to make the data and analysis used in the assessment available so that they could use it to provide responses to the Public Utility Commission of Texas (PUCT), Ms. Bivens stated that the analysis was general, and that requests for specific data should be submitted in advance. Market Participants requested that the Summer Assessment be discussed at the September 26, 2018 TAC meeting.

*Actions to ensure that Day-Ahead Market (DAM) completes*

Ms. Bivens summarized the August 9, 2018 event wherein Point-to-Point (PTP) Obligation submissions by one Qualified Scheduling Entity (QSE) exceeded the capacity of the PTP array and would have delayed the DAM if the QSE had not withdrawn the bids at ERCOT’s request. Ms. Bivens reviewed the DAM completion process and stated that ERCOT was able to resolve this issue, but that due to concerns of unlimited submissions and other potential scenarios that could impact the DAM, ERCOT was reviewing the bid process, potential solutions, and actions ERCOT could take in an event to bring forward in a future Revision Request.

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

Dan Jones summarized the revisions to ERCOT’s Determination Summary for Southern Cross Transmission Directive 10, Emergency Condition Price Formation. Market Participants and ERCOT Staff debated the price formation issues and intent of the directive. Shams Siddiqi stated that out of market actions related to Direct Current Ties (DC Ties) were not addressed, offered clarifications, and proposed additional vetting of the issues. In response to Market Participant questions on next steps for price formation issues, Mr. D. Jones stated that there has been substantial vetting of the issues in various Stakeholder forums and that ERCOT did not intend to draft a Revision Request at this time; however, Market Participants could file comments with the PUCT, file a Revision Request, or await further direction from the PUCT. Mark Bruce stated that Southern Cross Transmission could support the clarifications offered by Mr. Siddiqi however, further price formation clarifications regarding DC Tie issues should proceed through the Stakeholder process.

**Resmi Surendran moved to endorse the Determination Summary for Directive 10, Emergency Condition Price Formation, as revised by WMS. Diana Coleman seconded the motion. The motion carried unanimously.**

Mr. Kee assigned the issue of price formation impacts from ERCOT out-of-market actions related to DC Ties, including the Operating Reserve Demand Curve (ORDC) price adders and the impacts on Locational Marginal Prices (LMPs) from the Real-Time On-Line Reliability Deployment Price Adder to the QSE Managers Working Group (QMWG).

New Protocol Revision Subcommittee (PRS) Referrals

*There were no referrals made to WMS at the August 16, 2018 PRS Meeting.*

Next Steps for NPRR664:  Fuel Index Price for Resource Definition and Real-Time Make-Whole Payments for Exceptional Fuel Cost Events

Ino Gonzalez summarized the history of Nodal Protocol Revision Request (NPRR) 664, Fuel Index Price for Resource Definition and Real-Time Make-Whole Payments for Exceptional Fuel Cost Events, and NPRR847, Exceptional Fuel Cost Included in the Mitigated Offer Cap, reviewed the price and percentage differences in using Waha or Houston Ship Channel Fuel Index Prices (FIPs) and potential market impacts, stated that NPRR664 could not be implemented as proposed, and presented three solutions for WMS consideration. Market Participants and ERCOT Staff discussed the intent in the market design that fuel prices should reflect actual costs, challenges in aligning Revision Request language with PUCT rules, and mitigation issues. Market Participants requested additional time to review the potential solutions. Mr. Kee requested QMWG and the Resource Cost Working Group (RCWG) review the mitigation issues and cost impacts and provide a recommendation at the October 10, 2018 WMS meeting.

QMWG

Eric Goff summarized recent QMWG activities, including review of Revision Requests assigned to QMWG.

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

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

*NPRR872, Modifying the SASM Shadow Price Cap*

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

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

WMS took no action on these items.

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

Clif Lange reviewed the history of NPRR863 and stated that although NPRR863 separates Primary Frequency Response functions from Responsive Reserve (RRS) and establishes two discrete Ancillary Services: Primary Frequency Response Service (PFRS) and RRS, STEC would consider additional clarifications on the naming convention to reduce the implementation impacts of changing of the Ancillary Service names.

**Mr. Gross moved to endorse NPRR863 as amended by the 8/30/18 STEC comments. Clayton Greer seconded the motion.** Market Participants debated the merits of NPRR863. Proponents of NPRR863 opined that it reduces barriers to entry, provides compensation needed to incentivize new technology, and addresses reliability issues and compliance challenges in the current bundling of Ancillary Services. Some Market Participants expressed concern of liquidity in the Ancillary Services market and the implementation timeline. Other Market Participants requested additional time to review the 8/30/18 STEC comments.

**Bill Barnes moved to recommend PRS continue to table NPRR863 for one month. Franklin Maduzia seconded the motion. The motion carried via roll call vote with nine opposing votes from the Consumer (OPUC), Cooperative (2) (STEC, GSEC), Independent Generator (2) (Exelon, E.On), Independent Power Marketer (IPM) (2) (Morgan Stanley, Shell), Independent Retail Electric Provider (IREP) (Electranet), Investor Owned Utility (IOU) (AEP) Market Segments; and two abstentions from the Independent Generator (Calpine) and IPM (Tenaska) Market Segments.** *(Please see ballot posted with Key Documents.[[2]](#footnote-2))*

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

Ian Haley summarized the NPRR871 discussions at the July 9, 2018 and August 13, 2018 Congestion Management Working Group (CMWG) meetings.

**Mr. Goff moved to endorse NPRR871 as amended by the 9/5/18 Sharyland Utilities comments. Mr. Gross seconded the motion. The motion carried unanimously.**

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

**Mr. Goff moved to endorse NPRR879 as amended by the 8/3/18 ERCOT comments. Chris Such seconded the motion. The motion carried unanimously.**

Outage Coordination Working Group (OCWG)

*High Impact Transmission Elements List*

**Mr. Goff moved to waive notice to consider the High Impact Transmission Elements (HITE) list. Mr. Greer seconded the motion. The motion carried with one abstention from the IPM (Shell Energy) Market Segment.**

Martha Henson presented the HITE list.

**Shannon Caraway moved to endorse the 2018 HITE list as presented. Mr. Johnson seconded the motion. The motion carried with one abstention from the IPM (Shell Energy) Market Segment.**

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

Ms. Surendran presented the WMS Annual Subcommittee Review, summarized Working Group responses and highlighted enhancements including meeting efficiencies and scope changes. Kristy Ashley noted the limited participation at RCWG and requested Market Participant input in maintaining or disbanding RCWG and absorbing Resource cost issues under WMS. Market Participants expressed support to maintain RCWG to address the issues related to MRA Resources.

Other Business

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

Mr. D. Jones reminded Market Participants that following the filing of the Independent Market Monitor (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, and stated that the IMM and ERCOT will host a technical workshop on Thursday, September 6, 2018 and that written responses to Stakeholder inquiries were posted on the ERCOT website.

*Review of Open Action Items*

This item was moved to the October 10, 2018 WMS meeting.

*Posted Reports for Working Groups*

* CMWG
* Market Credit Working Group (MCWG)
* Market Settlement Working Group (MSWG)
* Metering Working Group (MWG)

*No Report*

* Demand Side Working Group (DSWG)
* RCWG
* Supply Analysis Working Group (SAWG)

Adjournment

Mr. Kee adjourned the September 5, 2018 WMS meeting at 12:11 p.m.

1. http://www.ercot.com/calendar/2018/9/5/141129-WMS [↑](#footnote-ref-1)
2. <http://www.ercot.com/mktrules/issues/NPRR863#keydocs> [↑](#footnote-ref-2)