**APPROVED**

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

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

**Wednesday, September 4, 2019 – 9:30 a.m.**

Attendance

*Members:*

|  |  |  |
| --- | --- | --- |
| Allen, Thresa | Avangrid Renewables | Via Teleconference |
| Barnes, Bill | Reliant Energy Retail Services |  |
| Bunch, Kevin | EDF Energy Services |  |
| Caraway, Shannon | Solar Prime |  |
| Carpenter, Jeremy | Tenaska Power Services |  |
| Claiborn-Pinto, Shawnee | OPUC |  |
| Downey, Marty | Electranet Power |  |
| Evans, Mike | Brazos Electric Cooperative |  |
| Greer, Clayton | Morgan Stanley |  |
| Gross, Blake | AEP Service Corporation | Via Teleconference |
| Haley, Ian | Calpine Corporation | Alt. Rep. for Brandon Whittle |
| Johnson, Anthony | CenterPoint Energy |  |
| Jolly, Emily | LCRA | Alt. Rep. for John Dumas |
| Kee, David | CPS Energy |  |
| Lindberg, Ken | Bryan Texas Utilities |  |
| Maduzia, Franklin | Dow Chemical |  |
| Morris, Sandy | Direct Energy |  |
| Rich, Katie | Golden Spread Electric Cooperative | Alt. Rep. for Joe Dan Wilson |
| Shaw, Marka | Exelon |  |
| Sithuraj, Murali | Austin Energy | Alt. Rep. for Erika Bierschbach |
| Smith, Mark | Nucor |  |
| Surendran, Resmi | Shell Energy |  |
| Turner, Lucas | South Texas Electric Cooperative | Alt. Rep. for Clif Lange |
| Velasquez, Ivan | Oncor |  |
| Wilson, Joe Dan | Golden Spread Electric Cooperative |  |

The following proxies were assigned:

* Russell Franklin to Ken Lindberg
* Jamie Mauldin to Shawnee Claiborn-Pinto
* Ty Parker to Sandy Morris

*Guests:*

|  |  |  |
| --- | --- | --- |
| Ainspan, Malcolm | NRG | Via Teleconference |
| Anderson, Kevin | Customized Energy Solutions |  |
| Baldwin, Stephanie | Softsmiths |  |
| Beck, Betsy | Enel | Via Teleconference |
| Benson, Mariah | PUCT | Via Teleconference |
| Blakey, Eric | Just Energy | Via Teleconference |
| Bohan, Michael | Tenaska Power Services |  |
| Bryant, Mark | PUCT | Via Teleconference |
| Bruce, Mark | Cratylus Advisors |  |
| Chhajed, Pushkar | LCRA |  |
| Chittyreddy, Jyothi | Oncor | Via Teleconference |
| Cochran, Seth | DC Energy |  |
| Coleman, Diana | CPS Energy |  |
| Crouch, Rebekah | New Braunfels Utilities | Via Teleconference |
| Daigneault, Ralph | Potomac Economics |  |
| Dawar, Vikas | Austin Energy | Via Teleconference |
| Detelich, David | CPS Energy |  |
| Dwyer, Davida | PUCT | Via Teleconference |
| English, Barksdale | Austin Energy | Via Teleconference |
| Garza, Beth | Potomac Economics | Via Teleconference |
| Gregg, Michele | TCPA |  |
| Hasan, Prusha | Advanced Energy | Via Teleconference |
| Hastings, David | MICS | Via Teleconference |
| Helton, Bob | Engie |  |
| Henson, Martha | Oncor |  |
| Jewell, Michael | Jewell and Associates |  |
| Kroskey, Tony | Brazos Electric Cooperative | Via Teleconference |
| Loving, Alicia | Austin Energy | Via Teleconference |
| McCamant, Frank | McCamant Consulting | Via Teleconference |
| McClellan, Suzi | Good Company Associates |  |
| Mirdham, David | EDPR |  |
| Nguyen, Andy | LCRA |  |
| Oltmanns, Steve | GE | Via Teleconference |
| Pelletier, Eveline | Hydro-Quebec | Via Teleconference |
| Penney, David | Texas Reliability Entity | Via Teleconference |
| Powell, Christian | Pedernales Electric Cooperative |  |
| Rainwater, Kim | Environmental Defense Fund |  |
| Reedy, Steve | Potomac Economics | Via Teleconference |
| Reid, Walter | Advanced Power Alliance |  |
| Robertson, Jennifer | LCRA |  |
| Robinson, Rhonda | Calpine | Via Teleconference |
| Schwarz, Brad | Sharyland |  |
| Siddiqi, Shams | Crescent Power |  |
| Singer, Chad | Trane | Via Teleconference |
| Smith, Caitlin | Invenergy |  |
| Smith, Chase | Southern Company | Via Teleconference |
| Smith, Chris | Austin Energy | Via Teleconference |
| Smyth, Scott | DTRG Law | Via Teleconference |
| Staples, Boone | Tenaska Power Services | Via Teleconference |
| Such, Chris | E.ON | Via Teleconference |
| Thayil, Thomson | Power Costs | Via Teleconference |
| Tierney-Lloyd, Mona | Enel X |  |
| Tran, Diana | TIEC |  |
| True, Roy | Aces Power | Via Teleconference |
| Van Booven, Ashley | New Braunfels Utilities | Via Teleconference |
| Varnell, John | Tenaska Power Services | Via Teleconference |
| Watson, Mark | SP Global | Via Teleconference |
| Wittington, Pam | Jewell and Associates |  |
| Wittmeyer, Bob | Longhorn Power |  |
| Younger, Joseph | Texas Reliability Entity | Via Teleconference |

*ERCOT Staff:*

|  |  |  |
| --- | --- | --- |
| Albracht, Brittney |  |  |
| Anderson, Connor |  | Via Teleconference |
| Bracy, Phil |  | Via Teleconference |
| Chen, Jian |  | Via Teleconference |
| Clifton, Suzy |  |  |
| Deller, Art |  | Via Teleconference |
| Du, Pengwei |  | Via Teleconference |
| Gilbertson, Jeff |  | Via Teleconference |
| Gonzalez, Ino |  |  |
| Hailu, Ted |  | Via Teleconference |
| Hilliard, Marie |  | Via Teleconference |
| Holt, Blake |  | Via Teleconference |
| Huang, Fred |  | Via Teleconference |
| Hughes, Lindsey |  | Via Teleconference |
| Jin, Julie |  | Via Teleconference |
| Jones, Dan |  |  |
| Kane, Erika |  | Via Teleconference |
| Kang, Sun Wook |  |  |
| Lasher, Warren |  |  |
| Levine, Jon |  | Via Teleconference |
| Maggio, Dave |  |  |
| Matevosjana, Julia |  | Via Teleconference |
| Mereness, Matt |  |  |
| Mickey, Joel |  |  |
| Morehead, Juliana |  |  |
| Ögelman, Kenan |  |  |
| Papudesi, Spoorthy |  | Via Teleconference |
| Patterson, Mark |  |  |
| Phillips, Cory |  |  |
| Roberts, Randy |  | Via Teleconference |
| Rosel, Austin |  | Via Teleconference |
| Ruane, Mark |  |  |
| Sanchez, Daniel |  | Via Teleconference |
| Shanks, Magie |  | Via Teleconference |
| Shaw, Pam |  |  |
| Smith, Nathan |  | Via Teleconference |
| Stice, Clayton |  |  |
| Thomas, Shane |  | Via Teleconference |
| Thompson, Chad |  | Via Teleconference |
| Troublefield, Jordan |  |  |
| Warnken, Pete |  | 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 and noted changes to the order items would be taken up.

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

*August 7, 2019*

**Bill Barnes moved to approve the August 7, 2019 WMS meeting minutes as submitted. Shawnee Claiborn-Pinto seconded the motion. The motion carried unanimously.**

Technical Advisory Committee (TAC) Update and Assignments

Mr. Kee noted that TAC did not meet in August of 2019, and that the motion to endorse Real-Time Co-Optimization (RTC) Key Principle 1.4, Subsection 2(a)-(d): System Inputs into Real-Time Co-Optimization, Key Principle 1.5, Subsections 7-13: Process for Deploying Ancillary Services, and Key Principle 3, Subsections 10-12: Reliability Unit Commitment (RUC) carried via email vote.

ERCOT Operations and Market Items (See Key Documents)

*External Telemetry & Price Corrections*

Kenan Ögelman summarized the August 7, 2019 WMS discussion regarding the May 30th Market Pricing Event and requested WMS direction on ERCOT telemetry validation rules, communication to the market when ERCOT does not do a price correction, and potential changes to the price correction methodology for external errors. Market Participants requested Wholesale Market Working Group (WMWG) review the issues. Mr. Kee encouraged WMWG leadership to review the telemetry issues with the Reliability and Operations Subcommittee (ROS) Working Groups.

Southern Cross Transmission Directive 4, Outage Coordination (see Key Documents)

Matt Mereness reviewed the Determination Summary for Southern Cross Transmission Directive 4, Outage Coordination, summarized discussion at the August 8, 2019 ROS meeting, noted the ROS endorsement, and requested WMS remove this item from the Open Action Items list. Some Market Participants expressed concern for advancing the directive without the Congestion Management Working Group (CMWG) review of the Outage coordination methodology. Mark Bruce stated that Southern Cross Transmission supports the ERCOT Determination Summary and the effort to be responsive to Public Utility Commission of Texas (PUCT) requests in a timely manner. Market Participants and ERCOT Staff discussed the intent of Southern Cross Directive 7, Congestion Management. Mr. Kee removed Directive 4, Outage Coordination from the Open Action Items list.

Energy Storage Workshop

ERCOT Staff summarized the energy storage integration issues and provided updates on assignments to ROS and WMS.

New Protocol Revision Subcommittee (PRS) Referrals

*Nodal Protocol Revision Request (NPRR) 963, Creation of Generation and Controllable Load Resource Group (GCLR Group)*

Michael Bohan summarized NPRR963, stated that the current market design limits full participation for energy storage Resources, and noted that NPRR963 is the first step in developing an interim solution until RTC is implemented. Market Participants requested review of the issues by WMWG.

**Clayton Greer moved to request PRS continue to table NPRR963 to allow for further review at WMWG. Marty Downey seconded the motion. The motion carried unanimously.**

*NPRR964, Improvement of RMR Process and Removal of Synchronous Condenser Unit and Agreement*

ERCOT Staff reviewed NPRR964. Market Participants discussed potential compensation concerns and conflicting language in the Synchronous Condenser Agreement and the Reliability-Must Run (RMR) Agreement, and requested additional review of the issues by the Resource Cost Working Group (RCWG).

**Mr. Greer moved to request PRS continue to table NPRR964 to allow for further review by the RCWG. Ian Haley seconded the motion. The motion carried unanimously.**

WMS Revision Requests

*Impact Analysis Review*

*Verifiable Cost Manual Revision Request (VCMRR) 024, Allocation of Auxiliary Equipment Power Costs in Variable O&M*

**Mr. Haley moved to endorse and forward to TAC the 8/7/19 WMS Report and the Impact Analysis for VCMRR024. Mr. Greer seconded the motion. The motion carried unanimously.**

WMWG (see Key Documents)

David Detelich summarized recent WMWG activities.

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

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

*NPRR933, Reporting of Demand Response by Retail Electric Providers and Non-Opt-In Entities*

*NPRR938, Distribution Voltage Level Block Load (BLT) Compensation*

*NPRR947, Clarification to Ancillary Service Supply Responsibility Definition and Improvements to Determining and Charging for Ancillary Service Failed Quantities*

WMS took no action on these items.

*NPRR903, Day-Ahead Market Timing Deviations*

ERCOT Staff summarized NPRR903 and the 3/4/2019 ERCOT comments, and stated forthcoming clarifications will request PRS consideration at the September 12, 2019 PRS meeting. Market Participants opposed to NPRR903 expressed concern for stakeholders harmed by an ERCOT action to clear the Day-Ahead Market (DAM) and the difficulty in obtaining redress through ERCOT’s Alternative Dispute Resolution (ADR) Procedure and/or from the PUCT, and offered to develop additional clarifications. WMS took no action on this item.

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

Mr. Barnes reviewed MCWG activities.

Supply Analysis Working Group (SAWG) (see Key Documents)

Caitlin Smith reviewed recent SAWG activities and summarized discussions on updates to the Cost of New Entry (CONE) Study Methodology. Market Participants and ERCOT Staff discussed the timeline in implementing the proposed CONE methodology and impacts to the Peaker Net Margin (PNM) threshold. Ms. Smith stated that the SAWG Scope and CONE Study Methodology would be offered for consideration at the October 2, 2019 WMS meeting.

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

Mona Tierney-Lloyd reviewed DSWG activities and noted that the August 13 and August 15, 2019 Emergency Response Service (ERS) deployment and performance issues would be discussed at the October 22, 2019 DSWG meeting.

Other Business

*High Impact Transmission Element (HITE) List*

Pushkar Chhajed reviewed the HITE List methodology, summarized discussions at the August 22, 2019

Operations Working Group (OWG) meeting, and reviewed the timeline.

**Ivan Velasquez moved to endorse the 2019 HITE list. Anthony Johnson seconded the motion. The motion carried with one abstention from the Independent Power Marketer (IPM) (Morgan Stanley) Market Segment.**

*Annual TAC Subcommittee Structural Review*

Market Participants reviewed meeting efficiencies for WMS and its working groups in consideration of the TAC criteria. Market Participants discussed the appropriate forum for vetting Metering Working Group (MWG) issues. Mr. Kee reminded Market Participants that the September 17, 2019 TAC and TAC Subcommittee Structural Review would be WebEx only.

*2020 Meeting Schedule*

Market Participants reviewed the 2020 Block Meeting Calendar.

*Review of Open Action Items*

Market Participants reviewed the Open Action Items list and removed the following completed items as submitted:

* Look at performance of Reliability Deployment Price Adder (RDPA) during the RUC events on October 4, 2018 ask that ERCOT prepare a detailed review, specifically fluctuations of the adder between zero and non-zero values that aren’t intuitive, and review the methodology to calculate the adder (CMWG)
* Review concept for Nodal Pricing for Non-Modeled Generators and Registered Distributed Generation (DG) (DSWG and WMWG)
* Review extensive Settlement formula’s in NPRR885, Must-Run Alternative (MRA) Details and Revisions Resulting from PUCT Project No. 46369, Rulemaking Relating to Reliability Must-Run Service (MSWG)
* Review removal of PPA applied in Verifiable Cost from Protocol (RCWG)
* Coal Index – Long Term Solution (RCWG)
* Review Switchable Generation Resource DSWG Whitepaper, include notification requirements of Resources switchable to other Control Areas (WMWG and RCWG)
* Review concerns of Generation To Be Dispatched (GTBD) calculation biases, look at root causes, why oscillation between Security-Constrained Economic Dispatch (SCED) clearing and prices in full Regulation Up (Reg-Up) and Regulation Down (Reg-Down) deployment (WMWG)

*No Report*

* MWG
* Congestion Management Working Group (CMWG)
* Market Settlement Working Group (MSWG)
* RCWG

Adjournment

Mr. Kee adjourned the September 4, 2019 WMS meeting at 12:25 p.m.

1. <http://www.ercot.com/calendar/2019/9/4/165251-WMS> [↑](#footnote-ref-1)