**APPROVED**

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

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

**Wednesday, August 7, 2019 – 9:30 a.m.**

Attendance

*Members:*

|  |  |  |
| --- | --- | --- |
| Allen, Thresa | Avangrid Renewables |  |
| Barnes, Bill | Reliant Energy Retail Services |   |
| Caraway, Shannon | Solar Prime |  |
| Carpenter, Jeremy | Tenaska Power Services |  |
| Claiborn-Pinto, Shawnee | OPUC |  |
| Downey, Marty | Electranet Power  |  |
| Dumas, John | LCRA |  |
| Evans, Mike | Brazos Electric Cooperative |  |
| Greer, Clayton | Morgan Stanley |   |
| Gross, Blake | AEP Service Corporation |   |
| Johnson, Anthony | CenterPoint Energy |  |
| Kee, David | CPS Energy |  |
| Lange, Clif | South Texas Electric Cooperative |  |
| Maduzia, Franklin | Dow Chemical |  |
| Mauldin, Jamie | City of Eastland |  |
| Morris, Sandy | Direct Energy |  |
| Parker, Ty | Infinite Energy | Via Teleconference |
| Robertson, Jennifer | LCRA | Alt. Rep. for John Dumas |
| Sams, Bryan | Lone Star Transmission |  |
| Shaw, Marka | Exelon |  |
| Sithuraj, Murali | Austin Energy | Alt. Rep. for Erika Bierschbach |
| Surendran, Resmi | Shell Energy  |  |
| Velasquez, Ivan | Oncor |  |
| Wilson, Joe Dan | Golden Spread Electric Cooperative |  |

The following proxy was assigned:

* Brandon Whittle to Marka Shaw

*Guests:*

|  |  |  |
| --- | --- | --- |
| Ainspan, Malcolm | NRG | Via Teleconference |
| Baldwin, Stephanie | Softsmiths | Via Teleconference |
| Beck, Betsy | Enel | Via Teleconference |
| Benson, Mariah | PUCT | Via Teleconference |
| Bertin, Suzanne | TAEBA |  |
| Blakey, Eric | Just Energy | Via Teleconference |
| Boisseau, Heather  | LCRA | Via Teleconference |
| Bryant, Mark | PUCT | Via Teleconference |
| Bruce, Mark | Cratylus Advisors | Via Teleconference |
| Bruns, Scott | Direct Energy | Via Teleconference |
| Bunch, Kevin | EDF Energy Services |  |
| Chhajed, Pushkar | LCRA |  |
| Cochran, Seth | DC Energy |  |
| Coleman, Diana | CPS Energy |  |
| Cortez, Sarai | Sharyland |  |
| Daigneault, Ralph | Potomac Economics |  |
| Detelich, David | CPS Energy |  |
| Fernandes, John | Customized Energy Solutions | Via Teleconference |
| Garza, Beth | Potomac Economics | Via Teleconference |
| Gregg, Michele | TCPA | Via Teleconference  |
| Haley, Ian | Luminant Generation |  |
| Hasan, Pusha | TAEBA |  |
| Helton, Bob | Engie |  |
| Henry, Mark | Texas Reliability Entity | Via Teleconference |
| Henson, Martha | Oncor |  |
| Jackson, Dan | Energy Transfer | Via Teleconference |
| Janicek, Jared | SBEC | Via Teleconference |
| Kleckner, Tom | RTO Insider | Via Teleconference |
| Kroskey, Tony | Brazos Electric Cooperative | Via Teleconference |
| Kueker, Dan | Brazos Electric Cooperative | Via Teleconference |
| Lee, Jim | AEP  | Via Teleconference |
| Loving, Alicia | Austin Energy | Via Teleconference |
| McClellan, Suzi | Good Company Associates |  |
| Minton, Joel | Mobile Me | Via Teleconference |
| Oltmanns, Steve | GE | Via Teleconference |
| Pollo, Kevin | CPS Energy |  |
| Powell, Christian | Pedernales Electric Cooperative |  |
| Pushkar, Chhajed | LCRA | Via Teleconference |
| Rainwater, Kim | Environmental Defense Fund |   |
| Reedy, Steve  | Potomac Economics | Via Teleconference |
| Reid, Walter | Advanced Power Alliance |   |
| Rich, Katie | Golden Spread Electric Cooperative |  |
| Robinson, Rhonda | Calpine | Via Teleconference |
| Siddiqi, Shams | Crescent Power |   |
| Sinn, Adam | Aspire Commodities | Via Teleconference |
| Smith, Caitlin | Invenergy |  |
| Smith, Chris | Austin Energy | Via Teleconference |
| Smyth, Scott | DTRG Law | Via Teleconference |
| Tierney-Lloyd, Mona | Enel X |  |
| True, Roy | Aces Power | Via Teleconference |
| Turner, Lucas | South Texas Electric Cooperative | Via Teleconference |
| Varnell, John | Tenaska Power Services | 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  |
| Bivens, Carrie |  | Via Teleconference |
| Bracy, Phil |  | Via Teleconference |
| Chu, Zhengguo |  | Via Teleconference |
| Clifton, Suzy |  |  |
| Covington, Austin |  | Via Teleconference |
| Giarratano, Alex |  | Via Teleconference |
| Gonzalez, Ino |  |   |
| Hailu, Ted |  | Via Teleconference |
| Hanson, Kevin |  | Via Teleconference |
| Hilliard, Marie |  | Via Teleconference |
| Hui, Hailong |  | Via Teleconference |
| Kane, Erika |  | Via Teleconference |
| Kettlewell, Bill |  | Via Teleconference |
| Lasher, Warren |  |  |
| Maggio, Dave |  |  |
| Mago, Nitika |  | Via Teleconference |
| Mereness, Matt |  | Via Teleconference |
| Mickey, Joel |  |  |
| Morehead, Juliana |  |  |
| Moreno, Alfredo |  | Via Teleconference |
| Ögelman, Kenan |  |  |
| Phillips, Cory |  |   |
| Roberts, Randy |  | Via Teleconference |
| Ruane, Mark |  |  |
| Shanks, Magie |  | Via Teleconference |
| Shaw, Pam |  |   |
| Thomas, Shane |  | Via Teleconference |
| Thompson, Chad |  | Via Teleconference |
| Troublefield, Jordan |  |  |
| Warnken, Pete |  | Via Teleconference |
| Wattles, Paul |  |  |

***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)

*July 10, 2019*

**Clif Lange moved to approve the July 10, 2019 WMS meeting minutes as submitted. Resmi Surendran seconded the motion. The motion carried with one abstention from the Consumer (OPUC) Market Segment.**

Technical Advisory Committee (TAC) Update and Assignments

*Evaluate moving the deadline for revising energy offer curves closer to Real-Time operations*

Mr. Kee reviewed the disposition of items considered at the July 24, 2019 TAC meeting and summarized the Real Time Co-Optimization (RTC) discussion and WMS assignment to evaluate moving the deadline for revising Energy Offer Curves closer to Real-Time operations. Market Participants discussed whether the solution should be developed from a holistic approach or limited in scope. ERCOT Staff reviewed the timeline of the upcoming Market Management System (MMS) and Outage Scheduler technology refresh project and potential impacts to implementing solutions. Mr. Kee requested the Wholesale Market Working Group (WMWG) prioritize the Energy Offer Curve issue and review market impacts from the technology refresh project.

ERCOT Operations and Market Items (See Key Documents)

*Unregistered Distributed Generation (DG) Report 2019 Q2 Update*

Conner Anderson presented the 2nd Quarter 2019 Unregistered DG Report and noted a Market Notice was sent for the new Non-Opt-In Entities (NOIEs) submission process.

New Protocol Revision Subcommittee (PRS) Referrals

*No referrals from July 17, 2019 PRS Meeting*

WMS Revision Requests

*Language Review*

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

**Clayton Greer moved to recommend approval of VCMRR024 as submitted. Shannon Caraway seconded the motion. The motion carried unanimously.**

*Impact Analysis Review*

*Settlement Metering Operating Guide Revision Request (SMOGRR) 022, Related to NPRR948, Instrument Transformer Testing Schedule and Removal of Reference to Fiber-Optic Current Transformers*

*VCMRR023, Related to NPRR940, Removal of Language Related to NPRR664, Fuel Index Price for Resource Definition and Real-Time Make-Whole Payments for Exceptional Fuel Cost Events*

**Bryan Sams moved to endorse and forward to TAC the respective 7/10/19 WMS Reports and Impact Analyses for SMOGRR022 and VCMRR023. Mr. Greer seconded the motion. The motion carried unanimously.**

WMWG (see Key Documents)

David Detelich summarized recent WMWG activities. Kenan Ögelman stated that ERCOT had completed an internal review of the May 30th Market Pricing Event, noted that 60 day data for that Operating Day is now available, and offered to bring forward to the September 4, 2019 WMS meeting a high level discussion focusing on changes to the price correction methodology, potential improvements to external telemetry that is coming in to ERCOT, and communication to the market when ERCOT does not do a price correction.

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

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

*NPRR903, Day-Ahead Market Timing Deviations*

*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.

*NPRR918, Validation Clarification for PTP Obligations with Links to an Option*

Market Participants reviewed NPRR918 and the 8/6/19 Joint comments.

**Mr. Lange moved to endorse NPRR918 as amended by the 8/6/19 Joint comments. Bill Barnes seconded the motion. The motion carried with two abstentions from the Independent Power Marketer (IPM) (Morgan Stanley, Shell Energy) Market Segment.**

*NPRR941, Create a Lower Rio Grande Valley Hub*

Market Participants reviewed NPRR941 and the 8/6/19 DC Energy comments.

**Marty Downey moved to endorse NPRR941 as amended by the 8/6/19 DC Energy comments. Mr. Greer seconded the motion. The motion carried unanimously.**

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

Sandy Morris reviewed CMWG activities.

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

Mr. Barnes reviewed MCWG activities.

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

Heather Boisseau reviewed MSWG activities.

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

Caitlin Smith reviewed recent SAWG activities.

Other Business

*Energy Storage Workshop*

Warren Lasher summarized the energy storage discussion at the July 22, 2019 WMWG meeting and stated that summaries of the progress on energy storage issues will be presented at TAC. Mr. Lasher encouraged Market Participants to attend the August 19, 2019 WMWG meeting to further discuss the performance criteria and impacts for updating the Energy Offer Curve in Real-Time and attend the August 8, 2019 Reliability Operations Subcommittee (ROS) meeting to discuss impacts related to Reliability Unit Commitment (RUC) and battery devices. Market Participants requested ERCOT maximize communication efforts to have robust discussion participation among stakeholders, including vendors and developers.

*High Impact Transmission Element (HITE) List*

Pushkar Chhajed stated that the HITE List is posted on the July 25, 2019 Operations Working Group (OWG) meeting page, encouraged Market Participants to attend the August 22, 2019 OWG meeting to discuss the issues, and noted WMS would consider the HITE list at the September 4, 2019 WMS meeting.

*Annual TAC Subcommittee Structural Review*

Bob Helton announced the September 17, 2019 TAC and TAC Subcommittee Structural Review would be WebEx only, and summarized specific criteria for WMS and its working groups to consider in evaluating potential meeting efficiencies.

*Oscillation in pricing during SCED*

Market Participants discussed the oscillation in prices on August 5 and August 6, 2019 and requested the WMWG review the issues of Generation To Be Dispatched (GTBD) calculation biases and oscillation between Security-Constrained Economic Dispatch (SCED) clearing and prices in full Regulation Up (Reg-Up) and Regulation Down (Reg-Down) deployment.

*Review of Open Action Items*

Market Participants reviewed the Open Action Items list.

*No Report*

* Metering Working Group (WMG)
* Demand Side Working Group (DSWG)
* Resource Cost Working Group (RCWG)

Adjournment

Mr. Kee adjourned the August 7, 2019 WMS meeting at 11:40 a.m.

1. <http://www.ercot.com/calendar/2019/8/7/165247-WMS> [↑](#footnote-ref-1)