**APPROVED**

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

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

**Wednesday, July 10, 2019 – 9:30 a.m.**

Attendance

*Members:*

|  |  |  |
| --- | --- | --- |
| Adair, Marshall | OPUC | Alt. Rep. for Lori Cobos |
| Allen, Thresa | Avangrid Renewables |  |
| Barnes, Bill | Reliant Energy Retail Services |   |
| Bunch, Kevin | Shell Energy | Alt. Rep. for Resmi Surendran |
| Caraway, Shannon | Solar Prime |  |
| Carpenter, Jeremy | Tenaska Power Services |  |
| Downey, Marty | Electranet Power  |  |
| Evans, Mike | Brazos Electric Cooperative |  |
| Goff, Eric | Citigroup Energy |  |
| Greer, Clayton | Morgan Stanley |   |
| Gross, Blake | AEP Service Corporation |   |
| Henson, Martha | Oncor | Alt. Rep. for Ivan Velasquez |
| Johnson, Anthony | CenterPoint Energy |  |
| Jolly, Emily | LCRA | Alt. Rep. for John Dumas |
| 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 |  |
| Parker, Ty | Infinite Energy | Via Teleconference |
| Rich, Katie | Golden Spread Electric Cooperative | Alt. Rep. for Joe Dan Wilson |
| Sams, Bryan | Lone Star Transmission |  |
| Sandidge, Clint | Calpine | Alt. Rep. for Brandon Whittle |
| Shaw, Marka | Exelon |  |
| Sithuraj, Murali | Austin Energy | Alt. Rep. for Erika Bierschbach |
| Smith, Caitlin | Solar Prime | Alt. Rep. for Shannon Caraway |
| Smith, Mark | Nucor |  |
| Velasquez, Ivan | Oncor |  |
| Wilson, Joe Dan | Golden Spread Electric Cooperative | Via Teleconference |

*Guests:*

|  |  |  |
| --- | --- | --- |
| Abbott, Kristin | PUCT | Via Teleconference |
| Ainspan, Malcolm | NRG | Via Teleconference |
| Aldridge, Ryan | AB Power | Via Teleconference |
| Ayers-Brasher, Jennifer | EON | Via Teleconference |
| Baldwin, Stephanie | Softsmiths |  |
| Bellezza, Katie | Novatus Energy | Via Teleconference |
| Benson, Mariah | PUCT | Via Teleconference |
| Blakey, Eric | Just Energy | Via Teleconference |
| Boisseau, Heather  | LCRA |  |
| Bryant, Mark | PUCT | Via Teleconference |
| Bruce, Mark | Cratylus Advisors |   |
| Cochran, Seth | DC Energy |  |
| Coleman, Diana | CPS Energy |  |
| Cunningham, Lance | Pedernales Electric Cooperative | Via Teleconference |
| Daigneault, Ralph | Potomac Economics |  |
| Detelich, David | CPS Energy |  |
| Dipastena, Philip | City of Denton | Via Teleconference |
| Fox, Kip | AEP/ETT/AEPTHC |  |
| Gregg, Michele | TCPA |   |
| Haley, Ian | Luminant Generation |  |
| Helton, Bob | Engie |  |
| Henderson, Natasha | Golden Spread Electric Cooperative | Via Teleconference |
| Henson, Martha | Oncor |  |
| Hughes, Darren | LCRA | Via Teleconference |
| Huynh, Thuy | Potomac Economics | Via Teleconference |
| Jones, Randy | Mountaineer | Via Teleconference |
| Kerr, Bruce | Novatus Energy | Via Teleconference |
| Kroskey, Tony | Brazos Electric Cooperative | Via Teleconference |
| Lee, Jim | AEP  | Via Teleconference |
| McGrath, Henry | AEP/ETT/AEPSC |  |
| McNamara, Ron | First Principles Economics |  |
| Mindlam, David | EDP Renewables |  |
| Nguyen, Andy | LCRA |  |
| Peck, Alex | Novatus Energy | Via Teleconference |
| Paff, Tom | Duke Energy | Via Teleconference |
| Powell, Christian | Pedernales Electric Cooperative |  |
| Rainwater, Kim | Environmental Defense Fund |   |
| Reedy, Steve  | Potomac Economics |  |
| Reid, Walter | Advanced Power Alliance |   |
| Ritch, John | NextEra Energy | Via Teleconference |
| Robertson, Jennifer | LCRA |  |
| Robinson, Rhonda | Calpine | Via Teleconference |
| Ryall, Jean | Advanced Power Alliance |  |
| Siddiqi, Shams | Crescent Power |   |
| Sinn, Adam | Aspire Commodities | Via Teleconference |
| Smith, Chris | Austin Energy | Via Teleconference |
| Such, Chris | EON | Via Teleconference |
| Tierney-Lloyd, Mona | EnerNOC |  |
| Tran, Diane | TIEC |   |
| True, Roy | Aces Power | Via Teleconference |
| Van Booven, Ashley | New Braunfels Utilities | Via Teleconference |
| Varnell, John | Tenaska Power Services | Via Teleconference |
| Wittington, Pam | Jewell and Associates |  |
| Wittmeyer, Bob | Denton Municipal Electric |   |
| Younger, Joseph | Texas Reliability Entity | Via Teleconference |

*ERCOT Staff:*

|  |  |  |
| --- | --- | --- |
| Albracht, Brittney |  |  |
| Anderson, Connor |  | Via Teleconference  |
| Bethke, Ponda |  | Via Teleconference |
| Bivens, Carrie |  |  |
| Bracy, Phil |  | Via Teleconference |
| Chang, Sean |  | Via Teleconference |
| Chen, Jian |  | Via Teleconference |
| Clifton, Suzy |  |  |
| Covington, Austin |  | Via Teleconference |
| Gonzalez, Ino |  |   |
| Hailu, Ted |  | Via Teleconference |
| Hanson, Kevin |  | Via Teleconference |
| Hilliard, Marie |  | Via Teleconference |
| House, Donald |  | Via Teleconference |
| Hughes, Lindsey |  | Via Teleconference |
| Kane, Erika |  | Via Teleconference |
| Khodabakhsh, Fred |  | Via Teleconference |
| Lasher, Warren |  |  |
| Levine, Jon |  | Via Teleconference |
| Maggio, Dave |  |  |
| Mago, Nitika |  | Via Teleconference |
| McCafferty, Cary |  | Via Teleconference |
| Mickey, Joel |  |  |
| Morehead, Juliana |  | Via Teleconference |
| Moreno, Alfredo |  | Via Teleconference |
| Phillips, Cory |  |   |
| Roberts, Randy |  |   |
| Rosel, Austin |  | Via Teleconference |
| Ruane, Mark |  |  |
| Scott, Vicki |  | Via Teleconference |
| Shaw, Pam |  |   |
| Smith, Nathan |  | Via Teleconference |
| Thomas, Shane |  |   |
| Townsend, Aaron |  |  |
| Troublefield, Jordan |  |  |
| Tucker, Don |  | Via Teleconference |
| Warnken, Pete |  | 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)

*June 5, 2019*

**Clayton Greer moved to approve the June 5, 2019 WMS meeting minutes as submitted. Bill Barnes seconded the motion. The motion carried unanimously.**

Technical Advisory Committee (TAC) Update and Assignments

Mr. Kee reminded Market Participants that TAC did not meet in June 2019.

ERCOT Operations and Market Items

There were no reports or discussions for this agenda item.

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

Sandy Morris reviewed CMWG activities.

*Nodal Protocol Revision Request (NPRR) 936, CRR Account Holder Limits*

Ms. Morris summarized NPRR936, the 6/24/19 CMWG discussion, and 7/1/19 Luminant comments. Market Participants discussed the appropriate transaction limits for the Congestion Revenue Rights (CRR) Auctions for Counter-Parties associated with participating CRR Account Holders. Carrie Bivens reviewed the approval process and potential system impacts. Market Participants offered clarifications to NPRR936.

**Eric Goff moved to endorse NPRR936 as revised by WMS, and requested TAC review setting the new Counter-Party limit to be equal to triple the current CRR Account Holder limit upon system implementation of NPRR936. Mr. Greer seconded the motion. The motion carried unanimously.**

Mr. Kee requested CMWG develop a System Change Request (SCR) to increase the maximum number of transactions to 400,000.

*Competitive Renewable Energy Zone (CREZ) Update*

Kip Fox reviewed written responses to Market Participants concerns regarding CREZ-related Transmission Facility Outages taken by Electric Transmission Texas, LLC, summarized the weather challenges that impact outage scheduling, and stated that December 2021 is the worst case scenario for completion of repairs. Some Market Participants expressed concern for the changing timeline and the magnitude of the anticipated costs to consumers, and requested that Market Notices be provided for future Outages, that quarterly updates be given at CMWG, and that the issue be brought forward at the July 24, 2019 TAC meeting.

New Protocol Revision Subcommittee (PRS) Referrals (see Key Documents)

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

Katie Rich summarized NPRR938 and cost impacts when BLTs are instructed to switch from ERCOT to a non-ERCOT control area during a declared Emergency Condition. ERCOT Staff reviewed the 7/9/19 ERCOT comments and the Settlement process. Market Participants requested additional review of the issues following the Reliability and Operations Subcommittee (ROS) consideration of NPRR937, Distribution Voltage Level Block Load Transfer (BLT) Deployment.

**Ms. Rich moved to request PRS continue to table NPRR938 pending resolution of NPRR937. Mr. Goff seconded the motion. The motion carried unanimously.**

*NPRR941, Create a Lower Rio Grande Valley Hub*

**Bryan Sams moved to request PRS continue to table NPRR941 for further review by CMWG. Clif Lange seconded the motion. The motion carried unanimously.**

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

ERCOT Staff summarized NPRR947 and the 7/1/19 ERCOT comments. Market Participants requested the Market Settlement Working Group (MSWG) review the Settlement process and the Wholesale Market Working Group (WMWG) review the concepts in NPRR947.

**Mr. Lange moved to request PRS continue to table NPRR947 for further review by MSWG and WMWG. Emily Jolly seconded the motion. The motion carried unanimously.**

WMS Revision Requests

*Language 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*

Don Tucker summarized SMOGRR022 and NPRR948.

**Mr. Greer moved to recommend approval of SMOGRR022 as submitted. Blake Gross seconded the motion. The motion carried unanimously.**

Revision Requests Tabled at WMS

*Verifiable Cost Manual Revision Request (VCMRR) 023, 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*

**Mr. Greer moved to recommend approval of VCMRR023 as submitted. Marty Downey seconded the motion. The motion carried unanimously.**

WMWG (see Key Documents)

David Detelich summarized recent WMWG activities, including the May 30th Market Pricing Event. Aaron Townsend stated that improvements to the Locational Real-Time On-Line Reliability Deployment Price Adder would be discussed at the August 5, 2019 CMWG meeting, and encouraged Market Participants to forward proposals in advance of the meeting.

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*

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

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

WMS took no action on these items.

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

Mr. Barnes reviewed DSWG activities.

Market Credit Working Group (see Key Documents)

Mr. Barnes reviewed MCWG activities.

MSWG (see Key Documents)

Heather Boisseau reviewed MSWG activities.

*2018 Unaccounted for Energy (UFE) analysis*

Randy Roberts summarized the 2018 UFE analysis report, including the cost summary. Market Participants discussed the actual loss factors compared to calculated losses in modeling and requested WMWG review the issues.

Supply Analysis Working Group (SAWG)

Caitlin Smith reviewed recent SAWG activities, including the methodology for determining the Peaker Net Margin (PNM) and noted the next SAWG meeting will be July 31, 2019.

Resource Cost Working Group (RCWG)

Ms. Rich reviewed RCWG activities.

Other Business

*Energy Storage Workshop*

Warren Lasher summarized the energy storage integration issues and potential assignments to ROS, WMS and the Real-Time Co-Optimization Task Force (RTCTF) as discussed at the April 23, 2019 Energy Storage Workshop and May 22, 2019 TAC meeting. Mr. Lasher and Market Participants discussed efficiencies in the vetting process for issues assigned to WMS. Market Participants reviewed Energy Storage Issue 6, State of Charge/Limited Duration considerations and requested WMWG review the specific methodology for the Resource Entity, operator or Qualified Scheduling Entity (QSE) communicating its preference for dispatching in the Real-Time market.

*High Impact Transmission Element (HITE) List*

Martha Henson summarized the timeline for development of the annual HITE list, encouraged Market Participants to attend the July 25 and August 22, 2019 Operations Working Group (OWG) meetings to discuss the issues, and noted WMS would consider the HITE list at the September 4, 2019 WMS meeting.

*Review of Open Action Items*

Market Participants reviewed the Open Action Items list.

*No Report*

* Metering Working Group (WMG)

Adjournment

Mr. Kee adjourned the July 10, 2019 WMS meeting at 12:23 p.m.

1. http://www.ercot.com/calendar/2019/7/10/165243-WMS [↑](#footnote-ref-1)