**APPROVED**

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

**Webex Only**

**Wednesday, July 8, 2020– 9:30 a.m.**

Attendance

*Members:*

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Allen, Thresa | Avangrid Renewables |  |
| Barnes, Bill | Reliant Energy Retail Services |  |
| Bierschbach, Erika | Austin Energy |  |
| Bunch, Kevin | EDF Trading North America |  |
| Caraway, Shannon | Solar Prime |  |
| Carpenter, Jeremy | Tenaska Power Services |  |
| Claiborn-Pinto, Shawnee | OPUC |  |
| Evans, Mike | Brazos Electric Cooperative |  |
| Franklin, Russell | Garland Power and Light |  |
| Greer, Clayton | Morgan Stanley |  |
| Gross, Blake | AEP Service Corporation |  |
| Haley, Ian | Luminant Generation |  |
| Johnson, Anthony | CenterPoint Energy |  |
| Kee, David | CPS Energy |  |
| Lange, Clif | South Texas Electric Cooperative |  |
| Lindberg, Ken | Bryan Texas Utilities |  |
| Mauldin, Jamie | City of Eastland |  |
| McNamara, Grace | Chariot Energy |  |
| Morris, Sandy | Direct Energy |  |
| Nguyen, Andy | Lower Colorado River Authority | Alt. Rep. for John Dumas |
| Parker, Ty | Infinite Energy |  |
| Roberts, Bobby | TNMP |  |
| Sams, Bryan | Calpine Corporation |  |
| Sefa, Fanar | Olin Corporation |  |
| Smith, Mark | Nucor |  |
| Surendran, Resmi | Shell Energy |  |
| Velasquez, Ivan | Oncor |  |
| Wilson, Joe Dan | Golden Spread Electric Cooperative |  |

*Guests:*

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| --- | --- | --- |
|  |  |  |
| Ainspan, Malcolm | NRG |  |
| Alford, Anthony | CenterPoint Energy |  |
| Anderson, Kevin | Customized Energy Solutions |  |
| Ashley, Kristy | Customized Energy Solutions |  |
| Barnett, Scott | Texas Green Energy |  |
| Beckmann, Kara | Pattern Energy |  |
| Bellezza, Katie | Novatus Energy |  |
| Bertin, Suzanne | Texas Advanced Energy |  |
| Bivens, Carrie | Potomac Economics |  |
| Bhuiyan, Frank | Austin Energy |  |
| Blakey, Eric | Just Energy |  |
| Bruce, Mark | Cratylus Advisors |  |
| Bruns, Scott | Direct Energy |  |
| Bryant, Mark |  |  |
| Chatlani, Varsha | Boston Energy Trading and Marketing |  |
| Cochran, Seth | DC Energy |  |
| Coleman, Diana | CPS Energy |  |
| Coleman, Katie | TIEC |  |
| Crouch, Cliff | PUCT |  |
| Coultas, Ann | Enel |  |
| Daigneault, Ralph | Potomac Economics |  |
| Detelich, David | CPS Energy |  |
| Dreyfus, Mark | MD Energy Consulting |  |
| Downey, Marty |  |  |
| Goff, Eric |  |  |
| Harvey, Julia | Texas Electric Cooperatives |  |
| Hasan, Prusha | Advanced Energy Economy |  |
| Hayden, Mario | EGPNA |  |
| Helton, Bob | ENGIE |  |
| Henson, Martha | Oncor |  |
| Hourihan, Mike | CPower Energy Management |  |
| Jewell, Michael | Jewell and Associates |  |
| Jolly, Emily | LCRA |  |
| Khayat, Maribel | CenterPoint Energy |  |
| Krajecki, Jim | Customized Energy Solutions |  |
| Kroskey, Tony | Brazos Electric Cooperative |  |
| Mendoza, Albert | Oxy |  |
| Musher, Danny | Key Capture Energy |  |
| Paff, Tom | Pattern Energy |  |
| Powell, Christian | Pedernales Electric Cooperative |  |
| Reader, Raborn | Enterprise Products Partners |  |
| Reedy, Steve | Potomac Economics |  |
| Reid, Mike | Air Liquide |  |
| Reid, Walter | Advanced Power Alliance |  |
| Rich, Katie | Golden Spread Electric Cooperative |  |
| Richmond, Michele | TCPA |  |
| Schauer, Trent | AB Power Advisors |  |
| Schwarz, Brad | Sharyland |  |
| Siddiqi, Shams | Crescent Power |  |
| Singer, Chad | Trane |  |
| Sithuraj, Murali | Austin Energy |  |
| Smith, Caitlin | AB Power Advisors |  |
| Smith, Chase | Southern Power |  |
| Smith, Chris | Austin Energy |  |
| Stupar, Rob | Invenergy |  |
| Tabrizi, Mike | DNV GL |  |
| Thompson, David | Pedernales Electric Cooperative |  |
| Totten, Jess | Osprey Energy |  |
| Tran, Diane | TIEC |  |
| Turner, Lucas | South Texas Electric Cooperative |  |
| Varnell, John | Tenaska |  |
| Walke, Pranil | Calpine |  |
| Watson, Mark | SP Global |  |
| White, Lauri | AEP |  |
| Wittmeyer, Bob | Longhorn Power |  |
| Zarnikau, Jay | Frontier Energy |  |
| Zerwas, Rebecca | PUCT |  |
| Zhou, Emily | Potomac Economics |  |

*ERCOT Staff:*

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| --- | --- | --- |
|  |  |  |
| Albracht, Brittney |  |  |
| Anderson, Connor |  |  |
| Ayson, Janice |  |  |
| Barati, Camron |  |  |
| Bernecker, John |  |  |
| Billo, Jeff |  |  |
| Boren, Ann |  |  |
| Bracy, Phil |  |  |
| Butler, Luke |  |  |
| Chen, Jian |  |  |
| Cheng, Yunzhi |  |  |
| Clifton, Suzy |  |  |
| Comstock, Read |  |  |
| Dansro, Ben |  |  |
| Dinopol, Ohlen |  |  |
| Du, Pengwei |  |  |
| Findley, Samantha |  |  |
| Ganjoo, Shalesh |  |  |
| Garcia, Freddy |  |  |
| Gnanam, Prabhu |  |  |
| Gonzalez, Ino |  |  |
| Gravois, Patrick |  |  |
| Guiyab, Rochie |  |  |
| Haesler, Jameson |  |  |
| Hanson, Kevin |  |  |
| Holt, Blake |  |  |
| House, Donald |  |  |
| Huang, Fred |  |  |
| Jenkins, Darrell |  |  |
| Jin, Julie |  |  |
| Jones, Dan |  |  |
| Kane, Erika |  |  |
| Krein, Steve |  |  |
| Lasher, Warren |  |  |
| Magarinos, Marcelo |  |  |
| Maggio, Dave |  |  |
| Mago, Nitika |  |  |
| Mantena, Dan |  |  |
| Maul, Donald |  |  |
| McGuire, Josh |  |  |
| Moorty, Sai |  |  |
| Morehead, Juliana |  |  |
| Moreno, Alfredo |  |  |
| Neiberger, Valery |  |  |
| Orr, Rob |  |  |
| Patterson, Mark |  |  |
| Phillips, Cory |  |  |
| Ragsdale, Kenneth |  |  |
| Raish, Carl |  |  |
| Rickerson, Woody |  |  |
| Rios, Diana |  |  |
| Rosel, Austin |  |  |
| Ruane, Mark |  |  |
| Scott, Vicki |  |  |
| Sharma, Sandip |  |  |
| Shaw, Pamela |  |  |
| Smith, Nathan |  |  |
| Stice, Clayton |  |  |
| Thomas, Shane |  |  |
| Thompson, Chad |  |  |
| Thompson, Lori |  |  |
| Townsend, Aaron |  |  |
| Tucker, Don |  |  |
| Warnken, Pete |  |  |
| Wattles, Paul |  |  |
| Woodfin, Dan |  |  |
| Xiao, Hong |  |  |
| Yan, Ping |  |  |
| Zhan, Wen |  |  |

***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 the agenda and proposed using a combined ballot where possible to maximize efficiencies for items to be considered by WMS. There were no questions or comments from Market Participants.

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

*June 3, 2020*

Market Participants reviewed the June 3, 2020 WMS Meeting Minutes. Mr. Kee noted this item was slated for inclusion in the [Combined Ballot](#Combined_Ballot). There were no questions or comments from Market Participants.

Technical Advisory Committee (TAC) Update and Assignments

Mr. Kee reviewed the disposition of items considered at the June 24, 2020 TAC meeting, including the 2020 TAC Goals.

2020 WMS Goals (See Key Documents)

Market Participants reviewed the 2020 Draft WMS Goals. Mr. Kee noted this item was slated for inclusion in the [Combined Ballot](#Combined_Ballot). There were no questions or comments from Market Participants.

ERCOT Operations and Market Items

There were no reports or discussions for this agenda item.

Recommendations from 2019 State of the Market Report Discussion (see Key Documents)

Carrie Bivens reviewed the Independent Market Monitor (IMM) Recommendations from the 2019 State of the Market Report and requested Stakeholder direction on the appropriate working group for review of the issues. Some Market Participants expressed a concern for removal of the Reliability Unit Commitment (RUC) opt-out as it was a compromise for discontinuing claw-backs. Ms. Bivens noted the improvements in the RUC process and requested a holistic review. In response to a Market Participant request for discussion of the Direct Current Tie (DC Tie) Load in transmission cost allocation, Mr. Kee directed the discussion be limited to one meeting to discuss alternatives, noting the issue is under the purview of the Public Utility Commission of Texas (PUCT). Some Market Participants expressed concern for ERCOT resource constraints in reviewing the recommendations in consideration of implementing Real-Time Co-Optimization (RTC). Market Participants further discussed the issues and made the following Working Group assignments:

* Remove RUC opt-out – Wholesale Market Working Group (WMWG)
* Eliminate two percent rule – Congestion Management Working Group (CMWG)
* Change Transmission Cost Allocation – WMWG
* Include Shadow Prices of Ancillary Services Constraints – WMWG
* Modifications to the Reliability Deployment Price Adder – WMWG
* Reliability MWs, not Market MWs
* Adjust restoration time
* Remove Emergency Response Service (ERS) deployed MWs from Operating

Reserve Demand Curve (ORDC) reserve calculations

* Local (Zonal) Reliability Deployment Price Adder – CMWG
* Mitigated Offer Changes – WMWG
* Commitment costs for RUC intervals
* Opportunity costs
* Ensure no fixe/non-marginal costs included in fuel adder
* Implement Transmission Demand Curves - CMWG

Other Binding Document Revision Request (OBDRR) 022, Updates to Demand Response Data Definitions and Technical Specifications Following NPRR933 Approval (see Key Documents)

Carl Raish summarized OBDRR022, reviewed the implementation timeline, and highlighted the key dates for the 2020 Demand Response survey. Market Participants thanked Mr. Raish for his efforts, and noted the collaborative effort with Retail Electric Providers (REPs), Non-Opt-In Entities (NOIEs) and ERCOT. Mr. Kee noted this item was slated for inclusion in the [Combined Ballot](#Combined_Ballot).

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

*Nodal Protocol Revision Request (NPRR) 994, Clarify Generator Interconnection Neutral Project Classification*

Jeff Billo noted several transmission issues related to generation constraints, including Generic Transmission Constraints (GTCs), NPRR994 and Nodal Operating Guide Revision Request (NOGRR) 215, Limit Use of Remedial Action Schemes and proposed a more holistic review of the issues in a workshop forum. Mr. Billo stated the workshop is anticipated to be held on August 21, 2020, if the ERCOT whitepaper, GTC 101 is completed and available for Stakeholder reference. Walter Reid offered to present his concerns on NPRR994 and the related issues at the workshop. Market Participants requested further review of the issues after the workshop. Mr. Kee noted this item was slated for inclusion in the [Combined Ballot](#Combined_Ballot).

*NPRR1017, Management of Congestion Revenue Rights (CRRs) and Resource Node Removals*

Market Participants reviewed NPRR1017 and requested review of the issues by CMWG. Mr. Kee noted this item was slated for inclusion in the [Combined Ballot](#Combined_Ballot). There were no questions or comments from Market Participants.

*NPRR1023, Change to CRR Repossession Process*

Market Participants reviewed NPRR1023 and requested review of the issues by CMWG, and then the Market Credit Working Group (MCWG). Mr. Kee noted this item was slated for inclusion in the [Combined Ballot](#Combined_Ballot). There were no questions or comments from Market Participants.

*NPRR1024, Determination of Significance with Respect to Price Correction*

Dave Maggio summarized NPRR1024 and discussions from previous WMWG meetings. Some Market Participants expressed concern for the low values proposed in NPRR1024 and requested further review of the issues by WMWG. Mr. Maggio offered to provide historical analysis of price corrections to confirm the appropriate number. Mr. Kee noted this item was slated for inclusion in the [Combined Ballot](#Combined_Ballot). There were no questions or comments from Market Participants.

*NPRR1025, Remove Real-Time On-Line Reliability Deployment Price from Ancillary Service Imbalance Calculation - Urgent*

Emily Jolly summarized the request for Urgent Status and the intent of NPRR1025 in consideration of the issues identified in NPRR1006, Update Real-Time On-Line Reliability Deployment Price Adder Inputs to Match Actual Data.

**Andy Nguyen moved to endorse NPRR1025 as submitted. Shannon Caraway seconded the motion.** Some Market Participants expressed concern for the concepts in NPRR1025 and the issues raised at the June 15, 2020 WMWG meeting by Stakeholders and IMM Staff, and requested further review of the issues. **Clayton Greer moved to table NPRR1025. Resmi Surendran seconded the motion.** LCRA Staff reviewed the 6/9/20 comments. David Detelich noted that WMWG did not come to consensus on a WMS recommendations on NPRR1025. Mr. Greer moved to withdraw his motion. **The motion to endorse NPRR1025 as submitted carried via roll call vote with seven objections from the Independent Power Marketer (IPM) (3) (Morgan Stanley, Shell Energy, Tenaska), Independent Retail Electric Provider (IREP) (2) (Direct Energy, Infinite Energy), and Municipal (2) (Austin Energy, CPS Energy) Market Segments, and three abstentions from the IPM (EDF Trading) and Investor Owned Utility (IOU) (2) (CenterPoint Energy, TNMP) Market Segments.** *(Please see ballot posted with Key Documents.)[[2]](#footnote-2)*

WMWG (see Key Documents)

*Direction on Alternate Solutions to NPRR991, Day-Ahead Market (DAM) Point-to-Point (PTP) Obligation Bid Clearing Price Clarification*

Mr. Detelich reviewed WMWG activities, including the alternate solutions to NPRR991 and requested WMS direction on the issue. Market Participants and ERCOT Staff discussed the proposed alternate solutions and requested ERCOT analysis to consider Alternative Option 1 and Option 3. Alfredo Moreno summarized the DAM price floor analysis and responded to Market Participant questions and comments. Market Participants expressed a preference for a solution with the least impact on Revenue Neutrality Allocation (RENA).

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

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

*NPRR981, Day-Ahead Market Price Correction Process*

WMS took no action on these items.

*NPRR995, RTF-6 Create Definition and Terms for Settlement Only Energy Storage*

ERCOT Staff summarized the intent of NPRR995 and ERCOT’s position on pricing for Settlement Only Energy Storage (SOES) resources, and reviewed metering issues. ERCOT Staff requested additional time to provide comments to NPRR995 and responded to Market Participants comments and questions. While WMS took no formal action on this item, no objections were raised to the decision points proposed by ERCOT Staff, as follows:

* SOES injections and withdrawals should be priced at nodal except when withdrawn energy is serving retail Load
* Wholesale Storage Load (WSL) should be extended to SOES; and
* Implementation should be timed so that there can never be a mix of zonal and nodal pricing.

Planning Guide Revision Request (PGRR) 077, DC Tie Planning Assumptions

Katie Rich noted PGRR077 will be reviewed at the July 13, 2020 CMWG meeting. Mr. Billo stated that ERCOT anticipated providing additional clarifications to PGRR077 before the meeting. WMS took no action on this item.

NOGRR215, Limit Use of Remedial Action Schemes

Mr. Caraway summarized the history of Remedial Action Schemes (RASs) in the ERCOT Market, presented discussion points for NOGRR215, and expressed support for review of the issues by CMWG and the Operations Working Group (OWG). Market Participants debated the issues, expressed a preference for the issues be reviewed in the workshop forum, and suggested that if viable solutions are not identified in the workshop then the issues be referred to CMWG and OWG. Mr. Kee noted this item was slated for inclusion in the [Combined Ballot](#Combined_Ballot).

Combined Ballot

**Mr. Greer moved to approve the Combined Ballot as follows:**

* **To approve the June 3, 2020 WMS meeting minutes as submitted**
* **To approve the 2020 WMS Goals as submitted**
* **To endorse OBDRR022 as submitted**
* **To request PRS continue to table NPRR994, referred the issue to a workshop, and confirmed WMS’ intent to consider NPRR994 after the workshop**
* **To request PRS continue to table NPRR1017 for further review by CMWG**
* **To request PRS continue to table NPRR1023 for further review by CMWG and then MCWG**
* **To table NPRR1024 for further review by WMWG**
* **To request ROS table NOGRR215 until after a workshop, and to request an opportunity to consider NOGRR215 after the workshop**

**Ian Haley seconded the motion. The motions carried unanimously via roll call vote. (***Please see ballot posted with Key Documents.)*

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

Christian Powell reviewed DSWG activities and noted that to maximize efficiencies DSWG would be meeting every other month for the remainder of 2020.

MCWG (see Key Documents)

Bill Barnes reviewed MCWG activities, presented the late payment enforcement concepts anticipated in a forthcoming ERCOT sponsored Revision Request, and noted that after reviewing ERCOT analysis there was limited benefit in shortening the Settlement timeline.

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

Caitlin Smith reviewed SAWG activities and responded to questions and comments from Market Participants. The main topics included Cost of New Entry (CONE) methodology review, net Load analysis for the Capacity, Demand and Reserves (CDR) and Seasonal Assessment of Resource Adequacy (SARA) Reports, and the interconnection process for planned restarts of retired units by a party other than the original owner.

NPRR1020, Add Definition of Integrated Battery Storage Systems (IBSS)

Market Participants discussed the metering issues related to NPRR1020. Mr. Kee requested the Metering Working Group (MWG) review the technical issues and any potential revisions to the Settlement Metering Operating Guide (SMOG) at the July 23, 2020 MWG meeting.

Other Business

*Review of Open Action Items*

No action was taken on this item.

*No Report*

* CMWG
* Market Settlement Working Group (MSWG)
* MWG
* Resource Cost Working Group (RCWG)

Adjournment

Mr. Kee adjourned the July 8, 2020 WMS meeting at 1:35 p.m.

1. Key Documents referenced in these minutes may be accessed on the ERCOT website at: http://www.ercot.com/calendar/2020/7/8/189338-WMS [↑](#footnote-ref-1)
2. http://www.ercot.com/mktrules/issues/NPRR1025#keydocs [↑](#footnote-ref-2)