**DRAFT**

**Minutes of the Wholesale Market Subcommittee (WMS) Meeting – Webex Only**

**Wednesday,** **May 3, 2023 – 9:30 a.m.**

Attendance

*Members:*

|  |  |  |  |
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|  |  |  | |
| Allen, Thresa | Avangrid Renewables (Avangrid) | |  |
| Barnes, Bill | Reliant Energy Retail Services (Reliant) | |  |
| Blakey, Eric | Pedernales Electric Cooperative (PEC) | |  |
| Burke, Tom | RWE Renewables (RWE) | |  |
| Campo, Curtis | Garland Power and Light (GP&L) | |  |
| Cochran, Seth | DC Energy | |  |
| DeLeon, Amanda | Tenaska Power Services (Tenaska) | |  |
| Detelich, David | CPS Energy | |  |
| Dreyfus, Mark | City of Eastland | |  |
| Farhangi, Anoush | Demand Control 2 | |  |
| Foster, Ashley | The Dow Chemical Company (Dow) | |  |
| Goff, Eric | Consumer – Residential | |  |
| Gross, Blake | AEP Service Corporation (AEPSC) | |  |
| Haley, Ian | Luminant Corporation (Luminant) | |  |
| Hanson, Kevin | National Grid Renewables (NG Renewables) | |  |
| Holt, Blake | Lower Colorado River Authority (LCRA) | | Alt. Rep. for Emily Jolly |
| Lee, Jim | CenterPoint Energy (CNP) | |  |
| Leon, Omar | Texas-New Mexico Power (TNMP) | | Alt. Rep. for Vincent Roberts |
| Lindberg, Ken | Bryan Texas Utilities (BTU) | |  |
| Nguyen, Andy | Constellation Energy Generation (Constellation) | |  |
| Packard, John | South Texas Electric Cooperative (STEC) | | Alt. Rep. for Lucas Turner |
| Smith, Mark | CMC Steel Texas (CMC Steel) | |  |
| Stafford, Will | Golden Spread Electric Cooperative (GSEC) | | Alt. Rep. for Katie Rich |
| Surendran, Resmi | Shell Energy North America (SENA) | |  |
| Velasquez, Ivan | Oncor Electric Delivery (Oncor) | |  |
| Xie, Fei | Austin Energy | | Alt Rep. for Erika Bierschbach |

*Guests:*

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| Ainspan, Malcolm | NRG | |  |
| Aldridge, Ryan | AB Power Advisors | |  |
| Anderson, Connor | AB Power Advisors | |  |
| Anderson, Kevin | CES | |  |
| Arnett, Rick |  | |  |
| Ashley, Kristy | CES | |  |
| Barati, Camron | Potomac Economics | |  |
| Basaran, Harika | PUCT | |  |
| Benson, Mariah | PUCT | |  |
| Berry, Danny | LCRA | |  |
| Bertin, Suzanne |  | |  |
| Bezwada, Neelima | Potomac Economics | |  |
| Bivens, Carrie | Potomac Economics | |  |
| Blackburn, Don | Hunt Energy Network Power Marketing | |  |
| Block, Laurie | L Block Consulting, LLC | |  |
| Boisseau, Heather | LCRA | |  |
| Boyce, Raymond | NRG | |  |
| Callender, Hudson | CPS Energy | |  |
| Caster, Andrew | Constellation | |  |
| Cheng, Yong | LCRA | |  |
| Coleman, Diana | CPS Energy | |  |
| Conant, Portia | Yes Energy | |  |
| Cortez, Sarai | Trailstone | |  |
| Cripe, Ramsey | Schneider Engineering | |  |
| De La Rosa, Lewis | Texas Reliability Entity | |  |
| DeLeon, Seth | DME | |  |
| Dharme, Neeraja | EDFT | |  |
| Donohoo, Ken | OwlERC, LLC | |  |
| Foos, Richard | Citadel | |  |
| Gonzalez, Emmanuel | Adapt 2 | |  |
| Hall, Matthew | Invenergy | |  |
| Headrick, Bridget | CES | |  |
| Hendrix, Chris | Demand Control 2 | |  |
| Henson, Martha | Oncor | |  |
| Hubbard, John Russ | TIEC | |  |
| Huynh, Thuy | Potomac Economics | |  |
| Jewell, Michael | Jewell and Associates | |  |
| Jones, Dan | DLJ Consulting, LLC | |  |
| Kirby, Brandon | GEUS | |  |
| Koz, Brian |  | |  |
| Kroskey, Tony | Brazos Electric Cooperative | |  |
| Lacek, Mollie | Talen Energy | |  |
| Lotter, Eric | GridMonitor | |  |
| Macaraeg, Tad | Stem | |  |
| McClellan, Suzi | Good Company Associates | |  |
| McDonald, Mike | NRG | |  |
| Mendoza, Albert | Occidental | |  |
| Noyes, Theresa | LCRA | |  |
| Ok, Brendan | PUCT | |  |
| Okenfuss, James | Savion | |  |
| Penagos, Stavros | BPPUS | |  |
| Pfefferle, Ryan | Oxy | |  |
| Pickens, Mike |  | |  |
| Pietrucha, Doug | Texas Advanced Energy | |  |
| Pokharel, Nabaraj | OPUC | |  |
| Powell, Christian | PEC | |  |
| Ramaswamy, Ramya | PUCT | |  |
| Reedy, Steve | CIM View Consulting | |  |
| Ritch, John | NextEra Energy | |  |
| Ritter, Colin | NRG | |  |
| Rodrigo, Dilhan | TC Energy | |  |
| Sams, Bryan | Calpine | |  |
| Schwarz, Brad | Sharyland | |  |
| Sersen, Juliana | Baker Botts | |  |
| Siddiqi, Shams | Crescent Power | |  |
| Snyder, Bill | AEP | |  |
| Stover, Andrea | Baker Botts | |  |
| Teng, Shuye | LCRA | |  |
| True, Roy | ACES Power | |  |
| Varnell, John | Tenaska | |  |
| Villasana, Kristi | NBU | |  |
| Varnell, John | Tenaska | |  |
| Walke, Pranil | Calpine | |  |
| Walker, Floyd | PUCT | |  |
| Wang, Ping | CFEX | |  |
| Wilson, Joe Dan | GSEC | |  |
| Wittmeyer, Bob | Longhorn Power | |  |
| Zarnikau, Jay | University of Texas at Austin | |  |
| Zhang, Kevin | Austin Energy | |  |
| Zhang, Wen | Potomac Economics | |  |

*ERCOT Staff:*

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|  |  |  |
| Albracht, Brittney |  |  |
| Azeredo, Chris |  |  |
| Bigbee, Nathan |  |  |
| Billo, Jeff |  |  |
| Boren, Ann |  |  |
| Clifton, Suzy |  |  |
| Du, Pengwei |  |  |
| Dwyer, Davida |  |  |
| Fohn, Doug |  |  |
| Garcia, Freddy |  |  |
| Gonzalez, Ino |  |  |
| Gross, Katherine |  |  |
| Haesler, Jameson |  |  |
| Hahne, Cynthia |  |  |
| Hailu, Ted |  |  |
| Hunsaker, Brett |  |  |
| Khodabakhsh, Fred |  |  |
| Lee, Alex |  |  |
| Magarinos, Marcelo |  |  |
| Maggio, Dave |  |  |
| Mago, Nitika |  |  |
| Mantena, Dan |  |  |
| Mereness, Matt |  |  |
| McGuire, Joshua |  |  |
| Modarresi, Sadegh |  |  |
| Moorty, Sai |  |  |
| Neel, Evan |  |  |
| Phillips, Cory |  |  |
| Ragsdale, Kenneth |  |  |
| Raish, Carl |  |  |
| Rosel, Austin |  |  |
| Shanks, Magie |  |  |
| Shaw, Pamela |  |  |
| Stice, Clayton |  |  |
| Thuerwaechter, Kashia |  |  |
| Troublefield, Jordan |  |  |
| Urquhart, Thomas |  |  |
| Vickery, Tyler |  |  |
| Young, Matt |  |  |
| Zerwas, Rebecca |  |  |
| Zhengguo, Chu |  |  |
| Zhou, Emily |  |  |

*Unless otherwise indicated, all Market Segments participated in the votes.*

Eric Blakey called the May 3, 2023 WMS meeting to order at 9:30 a.m.

Antitrust Admonition

Mr. Blakey directed attention to the Antitrust Admonition, which was displayed.

Agenda Review

Mr. Blakey reviewed the agenda.

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

*April 5, 2023*

Mr. Blakey noted that the April 5, 2023 WMS Meeting Minutes could be considered for inclusion in the [Combined Ballot.](#Combined_Ballot)

Technical Advisory Committee (TAC) Update

Mr. Blakey reviewed the disposition of items considered at the April 10, 2023 Special TAC meeting.

Resource Cost Working Group (RCWG)

*RCWG Leadership*

*Dana Showalter, Plus Power*

Mr. Blakey noted this item could be considered for inclusion in the [Combined Ballot.](#Combined_Ballot) Mr. Blakey stated that RCWG Vice Chair nominations had not yet been received and encouraged Market Participants to consider this leadership opportunity.

ERCOT Operations and Market Items

*2023 Q1 Settlement Stability Report*

Magie Shanks presented the 1st Quarter 2023 Settlement Stability Report.

*Protocol Required Reporting on Compensation for High Dispatch Limit (HDL)/Low Dispatch Limit (LDL) Overrides*

Ms. Shanks summarized the October 6, 2021 HDL/LDL Manual Override Report to WMS, stated that the Alternative Dispute Resolutions (ADRs) regarding two of those Resources was resolved, noted the Market Notices distributed, and reviewed the calculated costs.

*2023 Q1 and 2022 Annual Unregistered Distributed Generation (DG) Report*

Dan Mantena presented the 2022 Annual Unregistered DG and 2023 1st Quarter Unregistered DG reports.

*Price Response for December 23, 2022 (Winter Storm Elliott)*

Carl Raish presented the methodology and detailed Price Response analysis of the two pricing events on December 23, 2022 during Winter Storm Elliott.

*Demand/Price Response for Crypto Mining Load*

Mr. Raish reviewed the methodology, presented highlights of the 2021 through 2023 Analysis of the Demand/Price Response for Crypto Mining Load, and responded to Market Participant questions and concerns.

Other Binding Document Revision Request (OBDRR) 045, Additional Revisions to Demand Response Data Definitions and Technical Specifications (see Key Documents)

Thomas Urquhart summarized OBDRR045. Mr. Blakey noted this item could be considered for inclusion in the [Combined Ballot.](#Combined_Ballot)

WMS Revision Requests (see Key Documents)

*Impact Analysis*

*Verifiable Cost Manual Revision Request (VCMRR) 031, Clarification Related to Variable Costs in Fuel Adders*

**Eric Goff moved to endorse and forward to TAC the 4/5/23 WMS Report and the 8/3/21 Revised Impact Analysis for VCMRR031. Mark Dreyfus seconded the motion. The motion carried with 12 abstentions from the Cooperative (2) (STEC, PEC), Independent Generator (3) (Luminant, Avangrid, Constellation), Independent Power Marketer (IPM) (3) (DC Energy, Tenaska, NG Renewables), Investor Owned Utility (IOU) (3) (AEPSC, CNP, TNMP) and Municipal (Austin Energy) Market Segments.** *(Please see ballot posted with Key Documents.)*

*Language Review*

*VCMRR037 Related to NPRR1172, Fuel Adder Definition, Mitigated Offer Caps, and RUC Claw back*

Mr. Goff summarized VCMRR037, Nodal Protocol Revision Request (NPRR) 1172, and the 4/12/23 IMM comments to NPRR1172. Market Participants discussed awaiting the Protocol Revision Subcommittee (PRS) direction on NPRR1172 before considering VCMRR037. Mr. Blakey noted this item could be considered for inclusion in the [Combined Ballot.](#Combined_Ballot)

NPRR1172, Fuel Adder Definition, Mitigated Offer Caps, and RUC Clawback (see Key Documents)

This item was considered with VCMRR037. WMS took no action on NPRR1172.

NPRR1177, Enhance Exceptional Fuel Cost Process (see Key Documents)

Andy Nguyen reviewed NPRR1177 and the request for Urgent Status, and highlighted the benefits of this

interim solution. Some Market Participants opined that NPPRR1172 and NPRR1177 are related, and proposed considering the issues within the construct of a holistic review of Exceptional Fuel Costs and Reliability Unit Commitments (RUCs). Ino Gonzalez contrasted system impacts in an interim solution verses a long term permanent solution. Market Participants discussed the appropriate forum to discuss the issues and the consideration of NPRR1172 and NPRR1177 at the May 10, 2023 PRS Meeting. WMS took no action on NPRR1177. Mr. Blakey encouraged the Wholesale Market Working Group (WMWG) and RCWG leadership to coordinate discussion of the issues.

Revision Requests Tabled at PRS or ROS and Referred to WMS (see Key Documents)

*Nodal Operating Guide Revision Request (NOGRR) 215, Limit Use of Remedial Action Schemes*

*NPRR1070, Planning Criteria for GTC Exit Solutions*

*NPRR1146, Credit Changes to Appropriately Reflect TAO Exposure*

*NPRR1162, Single Agent Designation for a QSE and its Sub-QSEs for Voice Communications over the ERCOT WAN*

WMS took no action on these items.

*NPRR1143, Provide ERCOT Flexibility to Determine When ESRs May Charge During an EEA Level 3*

Mr. Blakey noted that at the April 13, 2023 PRS meeting, PRS voted to recommend approval of NPRR1143 as amended by the 9/29/22 ERCOT comments. WMS took no action on this item.

*NPRR1167 Improvements to Firm Fuel Supply*

Pamela Shaw summarized the 4/28/23 ERCOT comments to NPRR1167 and responded to Market Participants questions and concerns.

WMS Revision Requests Tabled at WMS (see Key Documents)

*VCMRR033, Excluding Exceptional Fuel Costs from Fuel Adders*

*VCMRR034, Excluding RUC Approved Fuel Costs from Fuel Adders*

*VCMRR035, Allow Verified Contractual Costs in Fuel Adder Calculation*

Market Participants discussed the appropriate forum to consider VCMRR033, VCMRR034, and VCMRR035 in consideration of confirmed RCWG leadership. Mr. Blakey directed the WMWG and RCWG leadership to coordinate discussion of the issues.

Combined Ballot

**Kevin Hanson moved to approve the Combined Ballot as follows:**

* **To approve the April 5, 2023 WMS Meeting Minutes as submitted**
* **To endorse Dana Showalter, Plus Power, as RCWG Chair**
* **To endorse OBDRR045 as submitted**
* **To table VCMRR037**

**Andy Nguyen seconded the motion. The motion carried unanimously.** *(Please see ballot posted with Key Documents.)*

Other Business

*Review Open Action Items*

Market Participants reviewed the Open Action Items List.

*No Report*

* Congestion Management Working Group (CMWG)
* Demand Side Working Group (DSWG)
* Market Settlement Working Group (MSWG)
* Meter Working Group (MWG)
* Supply Analysis Working Group (SAWG)
* WMWG

Adjournment

Mr. Blakey adjourned the May 3, 2023 WMS meeting at 12:22 p.m.

1. Key Documents referenced in these minutes may be accessed on the ERCOT website at:

   <https://www.ercot.com/calendar/05032023-WMS-Meeting-_-Webex> [↑](#footnote-ref-1)