**APPROVED**

**Minutes of the Technical Advisory Committee (TAC) Meeting**

**ERCOT Austin – 8000 Metropolis Drive (Building E), Suite 100– Austin, Texas 78744**

**Tuesday, June 27, 2023 – 9:30 a.m.**

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| *Members:* |  |  |
| Barnes, Bill | Reliant Energy Retail Services (Reliant) |  |
| Bonskowski, Ned | Luminant Generation (Luminant) |  |
| Carpenter, Jeremy | Tenaska Power Services (Tenaska) |  |
| Cochran, Seth | DC Energy |  |
| Coleman, Diana | CPS Energy |  |
| Dreyfus, Mark | City of Eastland |  |
| Fehrenbach, Nick | City of Dallas |  |
| Franklin, Russell | Garland Power and Light (GP&L) | Via Teleconference |
| Gaytan, Jose | Denton Municipal Electric (DME) | Via Teleconference |
| Goff, Eric | Residential Consumer |  |
| Harpole, Jay | AP Gas & Electric (APG&E) | Via Teleconference |
| Helton, Bob | ENGIE |  |
| Hendrix, Chris | Demand Control 2 | Via Teleconference |
| Henson, Martha | Oncor Electric Delivery (Oncor) | Alt. Rep. for Collin Martin |
| Holt, Blake | Lower Colorado River Authority (LCRA) | Alt. Rep. for Emily Jolly |
| Jolly, Emily | LCRA |  |
| Kent, Garret | CMC Steel Texas (CMC Steel) |  |
| Lange, Clif | South Texas Electric Cooperative (STEC) |  |
| Loving, Alicia | Austin Energy | Via Teleconference |
| Mercado, David | CenterPoint Energy (CNP) |  |
| Pokharel, Nabaraj | Office of Public Utility Counsel (OPUC) |  |
| Powell, Christian | Pedernales Electric Cooperative (PEC) |  |
| Ross, Richard | AEP Service Corporation |  |
| Sams, Bryan | Calpine Corporation (Calpine) |  |
| Schmitt, Jennifer | Rhythm Ops | Via Teleconference |
| Smith, Caitlin | Jupiter Power | Via Teleconference |
| Walcavich, Colin | National Grid Renewables (NG Renewables) | Alt. Rep. for Kevin Hanson |
| Whitehurst, Stacey | Texas-New Mexico Power Company (TNMP) | Alt Rep. for Keith Nix  Via Teleconference |
| Wise, Mike | Golden Spread Electric Cooperative (GSEC) |  |

The following proxies were assigned:

* Bill Smith to Garret Kent
* Resmi Surendran to Seth Cochran

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| *Guests:* | |  |  |
| Ainspan, Malcolm | | NRG | Via Teleconference |
| Aldridge, Ryan | | AB Power Advisors | Via Teleconference |
| Allen, Thresa | | Avangrid Renewables | Via Teleconference |
| Alozie, Okenzie | | Morgan Stanley | Via Teleconference |
| Anderson, Kevin | | CES | Via Teleconference |
| Ashley, Kristy | | CES | Via Teleconference |
| Bailey, Dan | |  | Via Teleconference |
| Barati, Camron | | Potomac Economics | Via Teleconference |
| Barr, Bill | | LCRA | Via Teleconference |
| Basaran, Harika | | PUCT | Via Teleconference |
| Batra-Shrader, Monica | | Enchanted Rock | Via Teleconference |
| Bell, Brad | | Solar Proponent | Via Teleconference |
| Benson, Mariah | | PUCT | Via Teleconference |
| Berry, Danny | | LCRA | Via Teleconference |
| Bezwada, Neelima | | Potomac Economics | Via Teleconference |
| Bivens, Carrie | | Potomac Economics |  |
| Blackburn, Don | | Hunt Energy Network | Via Teleconference |
| Block, Laurie | | LBlock Consulting, LLC | Via Teleconference |
| Bonner, Bob | | Satoshi Energy | Via Teleconference |
| Brown, Chris | | PUCT | Via Teleconference |
| Callender, Hudson | | CPS Energy | Via Teleconference |
| Campo, Curtis | | City of Garland | Via Teleconference |
| Caster, Andrew | | Constellation | Via Teleconference |
| Childress, John | |  | Via Teleconference |
| Clark, Jack | | Next Era Energy | Via Teleconference |
| Clifford, Brigid | | PG Renewables | Via Teleconference |
| Cooksey, Matthew | | OPUC | Via Teleconference |
| Cortez, Sarai | | Trailstone Group | Via Teleconference |
| Crist, Kelly | | ENGIE | Via Teleconference |
| Daigneault, Ralph | | Potomac Economics | Via Teleconference |
| Davis, Julie | | OPUC | Via Teleconference |
| Detelich, David | | CPS Energy | Via Teleconference |
| Dharme, Neeraja | | EDF Energy | Via Teleconference |
| Dollar, Zachary | | PUCT | Via Teleconference |
| Donohoo, Ken | | OwlERC, LLC | Via Teleconference |
| Fearing, Jared | | AES | Via Teleconference |
| Franchetti, Peter | | Morgan Stanley | Via Teleconference |
| Greer, Clayton | | Chollapetro | Via Teleconference |
| Grimes, Jordan | | Morgan Stanley | Via Teleconference |
| Gross, Blake | | AEPSC |  |
| Gursel, Deren | | Morgan Stanley | Via Teleconference |
| Haley, Ian | | Morgan Stanley |  |
| Harvey, Julia | | Texas Electric Cooperatives | Via Teleconference |
| Heck, Jess | | PUCT | Via Teleconference |
| Horstmyer, Reid | | Dynasty Power | Via Teleconference |
| Hubbard, John Russ | | TIEC |  |
| Hudis, Gabriella | | Gabel Associates | Via Teleconference |
| Hughes, Lindsey | | Broad Reach Power | Via Teleconference |
| Huynh, Thuy | | Potomac Economics | Via Teleconference |
| Inman, Grant | | BP | Via Teleconference |
| Jewell, Michael | | Jewell and Associates | Via Teleconference |
| Keller, Jenna | | PUCT | Via Teleconference |
| Kopp, Casey | | Broad Reach Power |  |
| Korde, Sky | | NG Renewables | Via Teleconference |
| Koz, Brian | |  | Via Teleconference |
| Kremling, Barry | | GVEC | Via Teleconference |
| Lacek, Mollie | | Talen Energy | Via Teleconference |
| Lee, Jim | | CNP |  |
| Leverett, Travis | | WETT | Via Teleconference |
| Lewis, William | | Payless Power | Via Teleconference |
| Lockerd, Patrick | |  | Via Teleconference |
| Lotter, Eric | | GridMonitor | Via Teleconference |
| Malik, Naureen | | Bloomberg News | Via Teleconference |
| Mayers, Sharon | | Worley | Via Teleconference |
| McKeever, Debbie | | Oncor |  |
| Mechler, Robert | | CTT | Via Teleconference |
| Mock, Christopher | | BP | Via Teleconference |
| Nicholson, Tyler | | PUCT | Via Teleconference |
| Nix, Emma | | Leeward Renewables | Via Teleconference |
| Noyes, Theresa | | LCRA |  |
| Ok, Brendan | | PUCT | Via Teleconference |
| Okenfuss, James | | Savion | Via Teleconference |
| Orr, Rob | | Lone Star Transmission |  |
| Paxon, Robert | |  | Via Teleconference |
| Proffer, Erica | | KVUE News | Via Teleconference |
| Pyka, Greg | | Schneider Engineering | Via Teleconference |
| Ramaswamy, Ramya | | PUCT | Via Teleconference |
| Ratliff, Shannon | | Policy Design | Via Teleconference |
| Reimers, Andrew | | Lancium | Via Teleconference |
| Rich, Katie | | GSEC |  |
| Richmond, Michele | | Competitive Power | Via Teleconference |
| Ritch, John | | NextEra Energy | Via Teleconference |
| Rodrigo, Dilhan | | TC Energy | Via Teleconference |
| Rosenthal, Peter | |  | Via Teleconference |
| Ryall, Jean | |  | Via Teleconference |
| Sager, Brenden | | Austin Energy | Via Teleconference |
| Scott, Kathy | | CNP |  |
| Sisk, Linden | |  | Via Teleconference |
| Siddiqi, Shams | | Crescent Power Consulting | Via Teleconference |
| Sims, Chris | | LP&L | Via Teleconference |
| Smith, Lana | |  | Via Teleconference |
| Stephenson, Zach | | Texas Electric Cooperatives | Via Teleconference |
| Suazo, Miguel | | BW Energy Law | Via Teleconference |
| Trefny, Floyd | |  | Via Teleconference |
| True, Roy | | ACES | Via Teleconference |
| Turner, Lucas | | STEC | Via Teleconference |
| Wall, Perrin | | CNP | Via Teleconference |
| Wallenstrom, Alia | | Satoshi Energy | Via Teleconference |
| Williams, Wes | | BTU | Via Teleconference |
| Wittmeyer, Bob | | Longhorn Power |  |
| Wyman, Constance | |  | Via Teleconference |
| Xie, Fei | | Austin Energy | Via Teleconference |
| Zang, Hailing | | TC Energy | Via Teleconference |
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|  |  | |  |
| *ERCOT Staff:* |  | |  |
| Adadjo, Fred |  | | Via Teleconference |
| Albracht, Brittney |  | |  |
| Anderson, Troy |  | |  |
| Arth, Matt |  | | Via Teleconference |
| Blevins, Bill |  | | Via Teleconference |
| Boren, Ann |  | |  |
| Carswell, Cory |  | | Via Teleconference |
| Castillo, Leo |  | | Via Teleconference |
| Clifton, Suzy |  | |  |
| Dashnyam, Sanchir |  | | Via Teleconference |
| Day, Betty |  | | Via Teleconference |
| Du, Pengwei |  | | Via Teleconference |
| Dwyer, Davida |  | | Via Teleconference |
| Garcia, Freddy |  | | Via Teleconference |
| Gnanam, Prabhu |  | | Via Teleconference |
| Golen, Robert |  | | Via Teleconference |
| Green, Alex |  | | Via Teleconference |
| Hahne, Cynthia |  | | Via Teleconference |
| Holden, Curry |  | | Via Teleconference |
| Kevil-Yeager, Scott |  | | Via Teleconference |
| Lee, Alex |  | | Via Teleconference |
| Li, Ying |  | | Via Teleconference |
| Loera, Amy |  | | Via Teleconference |
| Magarinos, Marcelo |  | | Via Teleconference |
| Maggio, Dave |  | | Via Teleconference |
| Mago, Nitika |  | | Via Teleconference |
| Mallu, Varalakshmi |  | | Via Teleconference |
| Mantena, Dan |  | | Via Teleconference |
| Matlock, Robert |  | | Via Teleconference |
| McGuire, Joshua |  | | Via Teleconference |
| McKinney, Colten |  | | Via Teleconference |
| Meier, Kennedy |  | |  |
| Meiners, Catherine |  | | Via Teleconference |
| Mereness, Matt |  | |  |
| Moreno, Alfredo |  | | Via Teleconference |
| Neel, Evan |  | | Via Teleconference |
| Ögelman, Kenan |  | |  |
| Parakkuth, Jayapal |  | | Via Teleconference |
| Penders, Christy |  | | Via Teleconference |
| Phillips, Cory |  | |  |
| Sanchez, Daniel |  | | Via Teleconference |
| Schmidt, Matthew |  | | Via Teleconference |
| Shanks, Magie |  | | Via Teleconference |
| Shaw, Pamela |  | | Via Teleconference |
| Solis, Stephen |  | | Via Teleconference |
| Springer, Agee |  | | Via Teleconference |
| Stice, Clayton |  | | Via Teleconference |
| Teixeira, Jay |  | |  |
| Troublefield, Jordan |  | |  |
| Vanella, Amie |  | |  |
| Wasik-Gutierrez, Erin |  | |  |
| You, Haibo |  | | Via Teleconference |
| Zhou, Emily |  | | Via Teleconference |

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

Clif Lange called the June 27, 2023 meeting to order at 9:30 a.m.

Antitrust Admonition

Mr. Lange directed attention to the displayed Antitrust Admonition and noted that the Antitrust Guidelines are available for review on the ERCOT website.

Approval of TAC Meeting Minutes (see Key Documents)[[1]](#footnote-2)

*May 23, 2023*

*June 5, 2023*

Mr. Lange noted these items could be considered in the [Combined Ballot](#Combined_Ballot_2).

Meetings Update

*June 19 – 20 Board Meetings*

Mr. Lange reviewed the disposition of items considered at the June 19, 2023 Board Committee Meetings and the June 20, 2023 Board of Directors Meeting.

Meeting Administration Discussion

*Working Group and Task Force Agendas*

*Changes to Working Group/Task Force Meetings*

*Abstentions on Combo Ballots*

Mr. Lange summarized recent discussion between Public Utility Commission of Texas (PUCT) Staff, TAC Leadership, and PRS Leadership regarding meeting administration, including the PUCT Staff request that working group and task force agendas and materials be posted seven days prior to the meeting date, any meeting cancellations or changes to hybrid or Webex only meetings be communicated to the appropriate ERCOT listserv, and combined ballots be used for unanimous items only.

Review of ERCOT Market Impact Statements/Opinions and Independent Market Monitor (IMM) Opinion (see Key Documents)

Ann Boren presented the ERCOT Market Impact Statements and ERCOT Opinions for Revision Requests to be considered by TAC, and noted the IMM opinions.

Protocol Revision Subcommittee (PRS) Report (see Key Documents)

Martha Henson reviewed PRS activities and presented Revision Requests for TAC consideration.

*Nodal Protocol Revision Request (NPRR) 1150, Related to NOGRR230, WAN Participant Security*

Mr. Lange noted this item could be considered in the [Combined Ballot](#Combined_Ballot_2).

*NPRR1173, Changes Consistent With the Options Available to an MOU and EC Entering Retail Competition in the ERCOT Market*

Market Participants discussed tabling NPRR1173 to allow TAC to consider NPRR1173 and Retail Market Guide Revision Request (RMGRR) 174, Related to NPRR1173, Changes Consistent With the Options Available to an MOU and EC Entering Retail Competition in the ERCOT Market, together. Mr. Lange noted this item could be considered in the [Combined Ballot](#Combined_Ballot_2).

*NPRR1176, Update to EEA Trigger Levels*

Market Participants discussed tabling NPRR1176 to allow TAC to consider NPRR1176 and Nodal Operating Guide Revision Request (NOGRR) 252, Related to NPRR1176, Update to EEA Trigger Levels, together. Mr. Lange noted this item could be considered in the [Combined Ballot](#Combined_Ballot_2).

Revision Requests Tabled at TAC (See Key Documents)

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

Market Participants reviewed the 5/4/23 WMS comments and 7/7/23 RMS comments to OBDRR045. Mr. Lange noted this item could be considered in the [Combined Ballot](#Combined_Ballot_2).

*NPRR1163, Related to LPGRR070, Discontinuation of Interval Data Recorder (IDR) Meter Weather Sensitivity Process*

Mr. Lange noted this item could be considered in the [Combined Ballot](#Combined_Ballot_2).

Retail Market Subcommittee (RMS) Report (See Key Documents)

*Load Profiling Guide (LPGRR) 070, Discontinuation of Interval Data Recorder (IDR) Meter Weather Sensitivity Process*

Debbie McKeever reviewed RMS activities, noted that RMS would be seeking TAC consideration of suspending the 2024 Residential and Consumer Annual Profile Validation at the July 25, 2023 TAC Meeting, and presented LPGRR070 for TAC consideration. Mr. Lange noted this item could be considered in the [Combined Ballot](#Combined_Ballot_2).

Reliability and Operations Subcommittee (ROS) Report (see Key Documents)

Katie Rich reviewed ROS activities, presented Revision Requests for TAC consideration, and noted the July 6, 2023 ROS meeting will be Webex Only.

*NOGRR230, WAN Participant Security*

*NOGRR251, Add Cold Weather Conditions to Template for Emergency Operations Plan*

*Planning Guide Revision Request (PPGRR) 103, Establish Time Limit for Generator Commissioning Following Approval to Synchronize*

Mr. Lange noted these items could be considered in the [Combined Ballot](#Combined_Ballot_2).

Wholesale Market Subcommittee (WMS) Report (see Key Documents)

Jim Lee reviewed WMS activities. In response to Market Participant requests for WMS review of the 2022 State of the Market Report for the ERCOT Electricity Markets, Mr. Lee offered to coordinate with IMM Staff to confirm this item for a future WMS meeting.

Credit Finance Sub Group (CFSG) Report (see Key Documents)

*Approval of CFSG Membership*

Brenden Sager reviewed CFSG activities. Market Participants discussed CFSG member requirements and requested review of the CFSG membership approval process for efficiencies. TAC took no action on this item. Mr. Lange requested CFSG provide an update at the July 25, 2023 TAC Meeting.

Large Flexible Load Task Force (LFLTF) Report (See Key Documents)

Bill Blevins reviewed LFLTF activities, including developing concepts for Revision Requests to cover defined terms, registration, interconnection process, operations, operations and markets, and manual Load Shed in an Energy Emergency Alert (EEA). Mr. Blevins presented the potential timeline and next steps and responded to Market Participant questions and concerns. In response to some Market Participants concerns for addressing Settlement of price sensitive flexible Loads, Kenan Ögelman encouraged Market Participants interested in pursuing these concepts to file a Revision Request.

ERCOT Reports (see Key Documents)

*Real-Time Cooptimization (RTC) Update*

Matt Mereness stated that the RTC project update was presented at the June 20, 2023 ERCOT Board of Directors Meeting, summarized the scope of the RTC program and concepts to improve monitoring and/or modeling of Energy Storage Resources (ESRs) discussed at the June 22, 2023 Workshop, reviewed the implementation costs and resource constraints, and presented next steps.

*ERCOT Contingency Reserve Service (ECRS) Go-Live Update*

Mr. Mereness summarized the ECRS project update, including communication and cut-over activities and observations in ECRS Day-Ahead Market (DAM) procurement and deployment since go-live. Market Participants and ERCOT Staff discussed the appropriate procurement of ECRS, concerns for deployment obligations, State of Charge (SOC) expectations around ECRS, and the 2024 Ancillary Service Methodology. Mr. Lange requested ROS review the issues of including setting appropriate volumes for ECRS; duration concerns and battery participation; and providing reasoning for ECRS deployments in operations communications. WMS was asked to work with ERCOT on providing data on an aggregate basis prior to 60-day disclosure.

*Dispatchable Reliability Reserve Service (DRRS) Implementation Process*

Mr. Ögelman summarized DRRS requirements and presented next steps to meet the legislative delivery

deadline of December 1, 2024. Mr. Ögelman responded to Market Participants’ questions and concerns and encouraged Stakeholders to attend the July 27, 2023 DRRS Discussion Workshop.

Other Business (see Key Documents)

*2024 Stakeholder Meeting Calendar*

Ms. Boren presented the draft 2024 Stakeholder Meeting Calendar. Market Participants discussed meeting efficiencies and proposed alternate meeting dates. Ms. Boren offered to provide alternate drafts at the July 25, 2023 TAC Meeting.

*ERCOT Load Forecasts*

Some Market Participants expressed concern for the dissemination of ERCOT information, specifically the usefulness of publishing high Load forecasts and potential confusion for the public. Mr. Ögelman encouraged Market Participants to provide feedback for dashboard improvements/efficiencies. Mr. Lange requested ROS review the issues.

Combined Ballot

**Bill Barnes moved to approve the Combined Ballot as follows:**

* **To approve the May 23, 2023 TAC Meeting Minutes as presented**
* **To approve the June 5, 2023 TAC Meeting Minutes as presented**
* **To recommend approval of NPRR1150 as recommended by PRS in the 6/14/23 PRS Report**
* **To table NPRR1173**
* **To table NPRR1176**
* **To recommend approval of OBDRR045 as submitted and the Impact Analysis**
* **To recommend approval of NPRR1163 as recommended by PRS in the 5/10/23 PRS Report**
* **To recommend approval of LPGRR070 as recommended by RMS in the 6/6/23 RMS Report**
* **To recommend approval of NOGRR230 as recommended by ROS in the 6/8/23 ROS Report**
* **To recommend approval of NOGRR251 as recommended by ROS in the 6/8/23 ROS Report**
* **To recommend approval of PGRR103 as recommended by ROS in the 6/8/23 ROS Report**

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

Mr. Lange adjourned the June 27, 2023 TAC meeting at 12:35 p.m.

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

   <https://www.ercot.com/calendar/06272023-TAC-Meeting> [↑](#footnote-ref-2)