**APPROVED**

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

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

**Wednesday, August 28, 2024 – 9:30 a.m.**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | |  | | |  | | |
| *TAC Representatives:* |  | | |  | | | |
| Barnes, Bill | Reliant Energy Retail Services (Reliant) | | |  | | | |
| Blakey, Eric | Pedernales Electric Cooperative (PEC) | | |  | | | |
| Bonskowski, Ned | Luminant Generation (Luminant) | | |  | | | |
| Carpenter, Jeremy | Tenaska Power Services (Tenaska) | | |  | | | |
| Coleman, Diana | CPS Energy | | | Alt. Rep. for David Kee | | | |
| Dreyfus, Mark | City of Eastland | | |  | | | |
| Fehrenbach, Nick | City of Dallas | | | Via Teleconference | | | |
| Franklin, Russell | Garland Power and Light (GP&L) | | | Via Teleconference | | | |
| Gaytan, Jose | Denton Municipal Electric (DME) | | |  | | | |
| Goff, Eric | Residential Consumer | | |  | | | |
| Haley, Ian | Morgan Stanley | | |  | | | |
| Harpole, Jay | APG&E | | | Via Teleconference | | | |
| Helton, Bob | ENGIE North America (ENGIE) | | |  | | | |
| Holt, Blake | Lower Colorado River Authority (LCRA) | | |  | | | |
| Kee, David | CPS Energy | | |  | | | |
| Kent, Garret | CMC Steel Texas (CMC Steel) | | |  | | | |
| Loving, Alicia | Austin Energy | | | Via Teleconference | | | |
| Martin, Collin | Oncor Electric Delivery (Oncor) | | |  | | | |
| Mercado, David | CenterPoint (CNP) | | |  | | | |
| Morais, Matt | National Grid Renewables (NG Renewables) | | | Via Teleconference | | | |
| Nix, Keith | Texas-New Mexico Power Company (TNMP) | | | Via Teleconference | | | |
| Packard, John | South Texas Electric Cooperative (STEC) | | | Via Teleconference | | | |
| Pokharel, Nabaraj | Office of Public Utility Counsel (OPUC) | | |  | | | |
| Ross, Richard | AEP Service Corporation (AEPSC) | | |  | | | |
| Sams, Bryan | Calpine Corporation (Calpine) | | |  | | | |
| Schmitt, Jennifer | Rhythm Ops | | |  | | | |
| Schubert, Eric | Lyondell Chemical | | | Via Teleconference | | | |
| Smith, Caitlin | Jupiter Power | | |  | | | |
| Surendran, Resmi | Shell Energy North America (SENA) | | |  | | | |
| Wilson, Joe Dan | Golden Spread Electric Cooperative (GSEC) | | | Alt. Rep for Mike Wise | | | |
|  | | |  | |  | |
|  | |  | | |  | |

The following proxy was assigned:

* Chris Hendrix to Jennifer Schmitt

*Guests:*

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| --- | --- | --- | --- | --- |
| Aldridge, Ryan | AB Power Advisors | | Via Teleconference | |
| Allen, Thresa | Avangrid Renewables | | Via Teleconference | |
| Alsup, Barry | Citadel | | Via Teleconference | |
| Amirazodi, Roozbeh | Got Rhythm | | Via Teleconference | |
| Anderson, Connor | AB Power Advisors | | Via Teleconference | |
| Anderson, Kevin | Customized Energy Solutions (CES) | | Via Teleconference | |
| Baldwin, Stephanie | ESG | | Via Teleconference | |
| Bansal, Apoorva | NextEra Energy | | Via Teleconference | |
| Barati, Camron | Potomac Economics | | Via Teleconference | |
| Beckman, Kara | NextEra Energy | |  | |
| Benson, Mariah | Texas Public Power Association (TPPA) | |  | |
| Berg, Justin | Equilibrium Energy | | Via Teleconference | |
| Bernier, Benjamin | Mercuria | | Via Teleconference | |
| Berry, Danny | LCRA | | Via Teleconference | |
| Bertin, Suzanne |  | | Via Teleconference | |
| Bevill, Rob | TNMP | | Via Teleconference | |
| Bezwada, Neelima | Potomac Economics | | Via Teleconference | |
| Bivens, Carrie | NextEra Energy | | Via Teleconference | |
| Blackburn, Don | Hunt Energy Network | | Via Teleconference | |
| Block, Laurie | L Block Consulting, LLC | | Via Teleconference | |
| Boggs, Callie | Eric Winters Goff, LLC | | Via Teleconference | |
| Boisseau, Heather | LCRA | | Via Teleconference | |
| Briggs, Lindsay | EPE Consulting | | Via Teleconference | |
| Bulzak, Jacob | Public Utility Commission of Texas (PUCT) | | Via Teleconference | |
| Buongiorno, Anna | Scout Clean Energy | | Via Teleconference | |
| Burkhead, Brett | Calpine | | Via Teleconference | |
| Campo, Curtis | Garland Power & Light | | Via Teleconference | |
| Chan, Vanessa | Enel | | Via Teleconference | |
| Clark, Jack | Spearmint Energy | | Via Teleconference | |
| Cockrell, Justin | DC Energy | | Via Teleconference | |
| Collins, C. | STEC | | Via Teleconference | |
| Cortez, Sarai | Trailstone | | Via Teleconference | |
| DeLeon, Seth | DME | | Via Teleconference | |
| Detelich, David | CPS Energy | | Via Teleconference | |
| Dharme, Neeraja | EDFT | | Via Teleconference | |
| Dietert, Cole | EPE Consulting | | Via Teleconference | |
| Frazier, Amanda | Treaty Oak Clean Energy | | Via Teleconference | |
| Gant, Jim | Priority Power | |  | |
| Gauldin, Julie | PUCT | | Via Teleconference | |
| Greer, Clayton | Cholla, Inc. | | Via Teleconference | |
| Hall, Matthew | Invenergy | | Via Teleconference | |
| Halland, Jessica |  | | Via Teleconference | |
| Headrick, Bridget | CES | |  | |
| Heith, Mattie | Calpine | | Via Teleconference | |
| Henson, Martha | Oncor | |  | |
| Hubbard, John Russ | Texas Industrial Energy Consumers (TIEC) | |  | |
| Jewell, Michael | Jewell and Associates | | Via Teleconference | |
| Jha, Monica | Vistra | | Via Teleconference | |
| John, Ebby | CNP | | Via Teleconference | |
| Kasali, Tosin | Hecate Grid | | Via Teleconference | |
| Keefer, Andrew | City of Denton | | Via Teleconference | |
| Kilroy, Taylor | TPPA | | Via Teleconference | |
| Kinser, Glenn | Total Energies | | Via Teleconference | |
| Kirby, Brandon | GEUS | | Via Teleconference | |
| Korde, Kshitij | National Grid Renewables | | Via Teleconference | |
| Koz, Brian |  | | Via Teleconference | |
| Kremling, Barry | GVEC | | Via Teleconference | |
| Lee, Jim | CNP | |  | |
| Levine, Jon | Baker Botts | | Via Teleconference | |
| Lewis, William | Payless Power | | Via Teleconference | |
| Lotter, Eric | GridMonitor | | Via Teleconference | |
| Lu, Bo | ENGIE | | Via Teleconference | |
| Macaraeg, Tad | Stem | | Via Teleconference | |
| Matks, Chris | Google | | Via Teleconference | |
| McClellan, Suzi | Good Company Associates | | Via Teleconference | |
| McDaniel Wyman, Constance |  | | Via Teleconference | |
| McKeever, Debbie | Oncor | |  | |
| McMichael, Richard | NG Renewables | | Via Teleconference | |
| McMurray, Creighton | Spencer Fane | |  | |
| Melaerts, Sebastien | 61Commodities | | Via Teleconference | |
| Miller, Alex | EDF Renewables | | Via Teleconference | |
| Morris, Sandy | WETT | | Via Teleconference | |
| Neel, Evan | Lancium | | Via Teleconference | |
| Nicholson, Tyler | PUCT | | Via Teleconference | |
| Pearson, Kelsey | Longhorn Power | |  | |
| Petajasoja, Ida | Stem Energy | | Via Teleconference | |
| Pietrucha, Doug | AEE | | Via Teleconference | |
| Reedy, Steve | CIM View Consulting | |  | |
| Rich, Katie | Luminant | |  | |
| Richmond, Michele | Texas Competitive Power Advocates (TCPA) | | Via Teleconference | |
| Ritch, John | Trafigura | | Via Teleconference | |
| Roybal, Tony | Tenaska | | Via Teleconference | |
| Safko, Trevor | LCRA | |  | |
| Sager, Brenden | Austin Energy | | Via Teleconference | |
| Scott, Kathy | CNP | |  | |
| Siddiqi, Shams | Crescent Power Consulting | | Via Teleconference | |
| Sirhan, Andrew | OCI Solar Power | | Via Teleconference | |
| Smith, Chase | Southern Power | | Via Teleconference | |
| Snyder, Bill | AEP Texas | | Via Teleconference | |
| Stephenson, Zach | Texas Electric Cooperatives (TEC) | | Via Teleconference | |
| Tay, Sing | AES | | Via Teleconference | |
| Teng, Shuye | Constellation | | Via Teleconference | |
| Thomas, Shane | Shell Energy | | Via Teleconference | |
| Uy, Manny | Hunt Energy | | Via Teleconference | |
| Velasquez, Ivan | Oncor | | Via Teleconference | |
| Watson, Markham |  | | Via Teleconference | |
| Williams, Mary Elen | OPUC | | Via Teleconference | |
| Williams, Wes | BTU | | Via Teleconference | |
| Withrow, David | AEP | |  | |
| Wittmeyer, Bob | Longhorn Power | |  | |
| Zang, Hailing | TC Energy | | Via Teleconference | |
| Zhang, Mandy | GEUS | | Via Teleconference | |
| Zito, David | Gabel Associates | | Via Teleconference | |
|  | |  | |  |
| *ERCOT Staff:* | |  | |  |
| Albracht, Brittney | |  | | Via Teleconference |
| Anderson, Troy | |  | |  |
| Arth, Matthew | |  | | Via Teleconference |
| Billo, Jeff | |  | |  |
| Boren, Ann | |  | |  |
| Carswell, Cory | |  | | Via Teleconference |
| Clifton, Suzy | |  | |  |
| Collins, Keith | |  | |  |
| Dashnyam, Sanchir | |  | | Via Teleconference |
| Day, Betty | |  | | Via Teleconference |
| Devadhas Mohanadha, Thinesh | |  | | Via Teleconference |
| Drake, Gordon | |  | |  |
| Du, Pengwei | |  | | Via Teleconference |
| Dwyer, Davida | |  | | Via Teleconference |
| Eedupuganti, Subbarao | |  | | Via Teleconference |
| El-Madhoun, Mohamed | |  | | Via Teleconference |
| Frosch, Colleen | |  | | Via Teleconference |
| Garcia, Freddy | |  | |  |
| Garza, Christian | |  | | Via Teleconference |
| Gnanam, Prabhu | |  | | Via Teleconference |
| Golen, Robert | |  | | Via Teleconference |
| González, Ino | |  | | Via Teleconference |
| Gravois, Patrick | |  | | Via Teleconference |
| Gross, Katherine | |  | |  |
| Guiyab, Rochie | |  | | Via Teleconference |
| Hailu, Ted | |  | | Via Teleconference |
| Hanson, Pamela | |  | |  |
| Herrera, Shane | |  | | Via Teleconference |
| Hinojosa, Luis | |  | | Via Teleconference |
| Huang, Fred | |  | | Via Teleconference |
| King, Ryan | |  | | Via Teleconference |
| Lee, Alex | |  | | Via Teleconference |
| Madam, Vamsi | |  | | Via Teleconference |
| Magarinos, Marcelo | |  | | Via Teleconference |
| Maggio, Dave | |  | | Via Teleconference |
| Mago, Nitika | |  | | Via Teleconference |
| MasannaGari, Abhilash | |  | | Via Teleconference |
| McGuire, Josh | |  | | Via Teleconference |
| Meier, Kennedy | |  | | Via Teleconference |
| Mereness, Matt | |  | |  |
| Miller, Megan | |  | | Via Teleconference |
| Moorty, Sai | |  | | Via Teleconference |
| Opheim, Calvin | |  | | Via Teleconference |
| Pedigo, Jake | |  | |  |
| Phillips, Cory | |  | |  |
| Ragsdale, Kenneth | |  | |  |
| Ravulapalli, Sridevi | |  | | Via Teleconference |
| Rosel, Austin | |  | | Via Teleconference |
| Shanks, Magie | |  | | Via Teleconference |
| Solis, Stephen | |  | | Via Teleconference |
| Troublefield, Jordan | |  | |  |
| Wasik-Gutierrez, Erin | |  | | Via Teleconference |
| Woodfin, Dan | |  | | Via Teleconference |
| Zhang, Bryan | |  | | Via Teleconference |

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

Caitlin Smith called the August 28, 2024 meeting to order at 9:30 a.m.

Antitrust Admonition

Ms. Smith 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)

*July 31, 2024*

Ms. Smith noted this item could be considered in the [Combined Ballot](#Combined_Ballot).

Meeting Updates

*August Board / Public Utility Commission of Texas (PUCT) Meetings*

Ms. Smith reviewed the disposition of items considered at the August 15, 2024 PUCT meeting and August 20, 2024 ERCOT Board (Board) meeting. Ms. Smith stated that the Board tabled Nodal Protocol Revision Request (NPRR) 1190, High Dispatch Limit Override Provision for Increased Load Serving Entity Costs. Keith Collins highlighted the 8/8/24 ERCOT comments to NPRR1190 and stated that the intent of filing the comments was to be responsive to the Board request to provide additional information to enable them to better understand the issues and actions taken. TAC members expressed concerns with ERCOT communicating TAC members’ positions on matters before the Board and requested additional written information about ERCOT’s proposed process for the additional reporting to the Board for discussion at the forthcoming workshop on stakeholder processes.

*Inverter-Based Resources (IBRs) Bifurcated Nodal Operating Guide Revision Request (NOGRR) Related to NOGRR245, Inverter-Based Resource (IBR) Ride-Through Requirements Update*

Ms. Smith stated that at the August 20, 2024 Board meeting the Board recommended approval of NOGRR245 and designated a subsequent NOGRR as a Board Priority Revision Request, to be filed after PUCT approval of NOGRR245 and to address the remaining details of the exemption process; requested consideration of the subsequent NOGRR at the February 4, 2025 Board meeting; and instructed TAC leadership to provide detailed updates on the subsequent NOGRR at the ERCOT Board’s October and December 2024 meetings. TAC members discussed concerns about the feasibility of meeting that timeline given that the expected subsequent NOGRR would not occur until after Commission approval of NOGRR245 (in late September), and the possibility that the Commission may take the issues embedded in the expected subsequent NOGRR as a rulemaking.

*Board Remand of NPRR1215, Clarifications to the Day-Ahead Market (DAM) Energy-Only Offer Calculation*

Austin Rosel reminded Market Participants of the discussion at the July 31, 2024 TAC meeting, reviewed the 8/1/24 ERCOT comments, and requested tabling of NPRR1215 for additional time to review questions raised by stakeholders which might require additional revisions to NPRR1215. Ms. Smith noted this item could be considered in the [Combined Ballot](#Combined_Ballot).

Review of Revision Request Summary/ERCOT Market Impact Statement/Opinions (See Key Documents)

Ann Boren presented a Revision Request Summary, including the ERCOT Market Impact Statements, ERCOT Opinions, Credit Finance Subgroup (CFSG) Review, budgetary impacts, and reasons for revisions for Revision Requests to be considered by TAC. Ms. Boren noted the Independent Market Monitor (IMM) opinions for Revision Requests to be considered by TAC.

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

Diana Coleman reviewed PRS activities and presented Revision Requests for TAC consideration.

*NPRR1221, Related to NOGRR262, Provisions for Operator-Controlled Manual Load Shed*

Ms. Smith noted this item could be considered in the [Combined Ballot](#Combined_Ballot).

Shane Herrera provided an update on ERCOT's final readiness process to ensure ERCOT, as the Balancing Authority, meets the implementation timeframe and obligation for the North American Electric Reliability Corporation (NERC) Reliability Standard, EOP-011-4, Emergency Operations, R2, Operating Plan, Part 2.2.9, which becomes enforceable on October 1, 2024; and stated that ERCOT would be distributing a notice to NERC-registered Transmission Operators (TOPs), within the ERCOT Interconnection, to inform them that NPRR1221 and NOGRR262, Provisions for Operator-Controlled Manual Load Shed, TAC-approved language makes up part of ERCOT's Operating Plan until both Revision Requests complete the stakeholder process and enter the binding documents. Ms. Smith noted this item could be considered in the [Combined Ballot](#Combined_Ballot).

*NPRR1236, RTC+B Modifications to RUC Capacity Short Calculations*

Ms. Smith noted this item could be considered in the [Combined Ballot](#Combined_Ballot).

Revision Requests Tabled at TAC (See Key Documents)

*Other Binding Document Revision Request (OBDRR) 046, Related to NPRR1188, Implement Nodal Dispatch and Energy Settlement for Controllable Load Resources*

TAC took no action on this item.

*NPRR1227, Related to RMGRR181, Alignment of Defined Term Usage and Resolution of Inconsistencies*

Ms. Smith noted this item and Retail Market Guide Revision Request (RMGRR) 181 could both be considered in the [Combined Ballot](#Combined_Ballot).

OBDRR052, Related to NPRR1246, Energy Storage Resource Terminology Alignment for the Single-Model Era (see Key Documents)

Kenneth Ragsdale reviewed OBDRR052, noted the related Revision Requests still under consideration by the relevant subcommittees, and requested tabling of OBDRR052. Ms. Smith noted that this item could be considered in the [Combined Ballot](#Combined_Ballot).

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

*RMGRR181*

Debbie McKeever reviewed RMS activities, including RMGRR181 and Transmission and/or Distribution Service Provider (TDSP) updates on Hurricane Beryl. RMGRR181 was considered with NPRR1227.

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

*NOGRR262*

Katie Rich reviewed ROS activities and presented NOGRR262 for TAC consideration. Ms. Smith noted that this item could be considered in the [Combined Ballot](#Combined_Ballot).

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

Eric Blakey reviewed WMS activities, including the Large Load Interconnection Status update.

CFSG Report (See Key Documents)

*Approval of CFSG Membership*

Brenden Sager reviewed CFSG activities and presented the following designated CFSG member for TAC approval:

* Mark Price, DC Energy, Independent Power Marketer (IPM)

Ms. Smith noted that this item could be considered in the [Combined Ballot](#Combined_Ballot).

Real-Time Co-optimization plus Batteries Task Force (RTCBTF) (see Key Documents)

Matt Mereness reviewed RTCBTF activities, including the timeline for ERCOT to release the potential Real-Time Co-optimization plus Batteries (RTC+B) go-live schedule, proposed sequence and potential market trial dates, and presented next steps. QSE attestations were reviewed, demonstrating widespread awareness of ERCOT’s proposed sequence and market trial dates – recognizing that QSEs were not committing to the specific timeline through their attestations. Mr. Mereness noted that the first review of parameters for Ancillary Service proxy offers is at the September 13, 2024 RTCBTF meeting. Mr. Collins summarized Ancillary Service Demand Curves discussion at the August 19, 2024 Reliability and Markets Committee meeting and August 20, 2024 Board meeting regarding potential opportunities to consider holistic changes brought forward by the IMM and/or stakeholders that would not impact the implementation timeline of RTC+B. Mr. Mereness encouraged interested stakeholders to attend the September 13, 2024 RTCBTF meeting to further discuss the issues. TAC members expressed a growing need for market training on RTC+B, asked questions about the simulator functionality and assumptions, and the need to review simulator results to evaluate whether RTC+B is likely to yield pricing outcomes that, while consistent with the ORDC, may not align with ERCOT’s conservative operations preferences.

ERCOT Reports (see Key Documents)

*ERCOT 2025 Membership Application and Agreement Updates*

Katherine Gross presented updates made to ERCOT’s Public Portal (ServiceNow) Annual Membership request form for the 2025 ERCOT Membership Application and Agreement period, highlighted Lessons Learned, reviewed the submission timeline, and responded to participant questions and concerns. TAC members expressed some concerns about the need for a separate invoice to support internal processing and the inability for Authorized Representatives or any other email address associated with a weatherization inspection notice to complete the Annual Membership request form.

Other Business (see Key Documents)

*September 5, 2024 TAC Workshop for Stakeholder Process*

Participants debated the issues to take up at the September 5, 2024 TAC Workshop for Stakeholder Process Improvement, reiterated the need for an issue statement, and discussed the appropriate forum(s) for reviewing the issues. Ms. Smith highlighted TAC leadership, ERCOT Staff, and Subcommittee leadership discussions in developing a draft agenda, and offered to further review next steps with ERCOT Staff.

*Congestion Revenue Rights (CRRs) Performance Update*

Mr. Mereness highlighted bid transaction scenarios impacting performance in the CRR auction, noted that ERCOT Staff would be reviewing potential solutions to maintain liquidity but not impact performance at the September 11, 2024 WMS meeting, and stated that an update on the issue would be provided at a future TAC meeting.

Combined Ballot

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

* **To approve the July 31, 2024 TAC meeting minutes as presented**
* **To table NPRR1215**
* **To recommend approval of NPRR1221 as recommended by PRS in the 8/8/24 PRS Report**
* **To recommend approval of NPRR1236 as recommended by PRS in the 8/8/24 PRS Report**
* **To recommend approval of NPRR1227 as recommended by PRS in the 7/18/24 PRS Report**
* **To table OBDRR052**
* **To recommend approval of RMGRR181 as recommended by RMS in the 8/6/24 RMS Report**
* **To recommend approval of NOGRR262 as recommended by ROS in the 8/1/24 ROS Report**
* **To approve the CFSG membership addition as presented (Mark Price, DC Energy, IPM)**

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

Ms. Smith adjourned the August 28, 2024 TAC meeting at 11:44 a.m.

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

   <https://www.ercot.com/calendar/08282024-TAC-Meeting> [↑](#footnote-ref-2)