**APPROVED**

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

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

**Wednesday, February 14, 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) |  |
| Cochran, Adam | Tenaska | Alt. Rep. for Jeremy Carpenter Via Teleconference |
| Cochran, Seth | DC Energy | Via Teleconference |
| Dreyfus, Mark | City of Eastland | Via Teleconference |
| 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 |  |
| Haley, Ian | Morgan Stanley  |  |
| Harpole, Jay | AP Gas & Electric (APG&E) | Via Teleconference |
| Helton, Bob | ENGIE North America (ENGIE) |  |
| Hendrix, Chris | Demand Control 2 | Via Teleconference |
| Holt, Blake | Lower Colorado River Authority (LCRA) |  |
| Kee, David | CPS Energy | Via Teleconference |
| Kent, Garret | CMC Steel Texas (CMC Steel) | Via Teleconference |
| Loving, Alicia | Austin Energy |  |
| Martin, Collin | Oncor Electric Delivery (Oncor) |  |
| Mercado, David | CenterPoint Energy (CNP) |  |
| Nix, Keith | Texas-New Mexico Power Company (TNMP) | Via Teleconference |
| Packard, John | South Texas Electric Cooperative | 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 | Via Teleconference |
| Schubert, Eric | Lyondell Chemical | Via Teleconference |
| Smith, Caitlin | Jupiter Power |  |
| Wise, Mike | Golden Spread Electric Cooperative (GSEC) |  |
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The following proxies were assigned:

* Resmi Surendran to Seth Cochran
* Jay Harpole to Chris Hendrix
* Eric Goff to Nabaraj Pokharel for NOGRR245

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| *Guests:*  |  |  |
| Ainspan, Malcom | NRG | Via Teleconference |
| Aldridge, Ryan | AB Power Advisors | Via Teleconference |
| Allen, Thresa | Avangrid Renewables | Via Teleconference |
| Anderson, Connor | AB Power Advisors | Via Teleconference |
| Anderson, Kevin | CES | Via Teleconference |
| Anderson, Lyrae | Akuo Energy | Via Teleconference |
| Arnett, Rick |  | Via Teleconference |
| Ashley, Kristy | CES | Via Teleconference |
| Azari, David | Invenergy | Via Teleconference |
| Bansal, Apoorva | NextEra Energy | Via Teleconference |
| Barati, Camron | Potomac Economics | Via Teleconference |
| Barr, Bill | LCRA | Via Teleconference |
| Batra-Shrader, Monica | Enchanted Rock | Via Teleconference |
| Benson, Mariah | TPPA | Via Teleconference |
| Bernier, Benjamin | Mercuria | Via Teleconference |
| Berry, Danny | LCRA | Via Teleconference |
| Bertin, Suzanne |  | Via Teleconference |
| Bezwada, Neelima | Potomac Economics | Via Teleconference |
| Bivens, Carrie | NextEra Energy |  |
| Blackburn, Don | Hunt Energy Network | Via Teleconference |
| Block, Laurie | L Block Consulting, LLC | Via Teleconference |
| Boggs, Callie | Eric Winters Goff, LLC | Via Teleconference |
| Bonner, Bob | Satoshi Energy | Via Teleconference |
| Bunch, Kevin | EDF Trading | Via Teleconference |
| Campo, Curtis | Garland Power & Light | Via Teleconference |
| Chwialkowski, Todd | EDF Renewable Energy | Via Teleconference |
| Chmiel, Gary | GE | Via Teleconference |
| Clark, Jack | NextEra Energy | Via Teleconference |
| Coffee, Jennifer | Texas Pipelines | Via Teleconference |
| Colaco, Elibia | Serena | Via Teleconference |
| Coleman, Diana | CPS Energy |  |
| Cox, Jason |  | Via Teleconference |
| Cripe, Ramsey | Schneider Engineering | Via Teleconference |
| Dernulc, Lawrence | Invenergy | Via Teleconference |
| Dharme, Neeraja | EDFT | Via Teleconference |
| Dietert, Cole | EPE Consulting | Via Teleconference |
| Donohoo, Ken | OwlERC | Via Teleconference |
| Duensing, Allison | Sarac Energy | Via Teleconference |
| Easton, Angela | NextEra Energy  | Via Teleconference |
| Escala roque, Carlos | NextEra Energy | Via Teleconference |
| Fleming, Jacki | Talen Energy | Via Teleconference |
| Freeland, Lauren |  | Via Teleconference |
| Ghoshal, Orijit | esVolta | Via Teleconference |
| Gibbs, Dale | Just Energy | Via Teleconference |
| Goff, Eric | NextEra Energy Resources for NOGRR245 Only  |  |
| Griffith, Scott | Deriva Energy | Via Teleconference |
| Hale, Josh | Southern Power | Via Teleconference |
| Hall, Matthew | Invenergy |  |
| Hankins, Laura | LCRA | Via Teleconference |
| Harvey, Julia | Texas Electric Cooperatives | Via Teleconference |
| Henry, Mark | Texas Reliability Entity (Texas RE) | Via Teleconference |
| Henson, Martha | Oncor | Via Teleconference |
| Hubbard, John Russ | TIEC |  |
| Ingraham, Deborah | Acciona | Via Teleconference |
| Johnson, Shannon | PEC | Via Teleconference |
| Jones, Randy | Mountaineer Market Advisors | Via Teleconference |
| Leverett, Travis | WETT | Via Teleconference |
| Loarie Jessica | Invenergy | Via Teleconference |
| Jewell, Michael |   | Via Teleconference |
| Keefer, Andrew | City of Denton | Via Teleconference |
| Keller, Jenna | Potomac Economics | Via Teleconference |
| Kilroy, Taylor | Texas Public Power Association (TPPA) | Via Teleconference |
| Kimbrough, Mandy | NRG | Via Teleconference |
| Koz, Brian |   | Via Teleconference |
| Kurthakoti, Divya | Orsted | Via Teleconference |
| Lasher, Warren | Lasher Consulting | Via Teleconference |
| Lee, Jim | CenterPoint Energy | Via Teleconference |
| Lin, Blake | Potomac Economics | Via Teleconference |
| Lotter, Eric | GridMonitor | Via Teleconference |
| Luukkonen, Paul | Enbridge | Via Teleconference |
| Macias, Jesse | AEP Texas | Via Teleconference |
| Mareddy, Mahendhar | DNV | Via Teleconference |
| Martin, Loretto | NRG | Via Teleconference |
| Maxymillian, Kris | Morgan Lewis | Via Teleconference |
| McClellan, Suzi | Good Company Associates |  |
| McIntyre, Ken | Plus Power | Via Teleconference |
| McKeever, Debbie | Oncor | Via Teleconference |
| McMurray, Mark | BTU | Via Teleconference |
| Miller, Alexandra | EDF Renewables | Via Teleconference |
| Morris, Sandy | WETT | Via Teleconference |
| Munter, Megan |  | Via Teleconference |
| Nicholson, Tyler | PUCT | Via Teleconference |
| Nigro, Andrew | Invenergy | Via Teleconference |
| Nguyen, Andy | Constellation Energy Generation | Via Teleconference |
| Oxendine, Helen | CPS Energy | Via Teleconference |
| Pappu, Aja | Invenergy | Via Teleconference |
| Pearson, Kelsey | Longhorn Power | Via Teleconference |
| Petersen, Brock | Satoshi Energy |  |
| Pfefferle, Ryan | Occidental Chemical | Via Teleconference |
| Pietrucha, Doug |  | Via Teleconference |
| Pyka, Greg | Schneider Engineering | Via Teleconference |
| Quezada, Robert | ACES | Via Teleconference |
| Ramaswamy, Ramya | PUCT | Via Teleconference |
| Rich, Katie | Vistra |  |
| Richmond, Michele | Texas Competitive Power Advocates (TCPA) | Via Teleconference |
| Ritch, John | Trafigura | Via Teleconference |
| Sager, Brenden | Austin Energy | Via Teleconference |
| Schatz, John | Luminant Generation  | Via Teleconference |
| Schwarz, Brad | Sharyland |  |
| Scott, Kathy | CNP |  |
| Sersen, Juliana | Baker Botts |  |
| Siddiqi, Shams | Crescent Power Consulting | Via Teleconference |
| Singh, Vikramjit |  | Via Teleconference |
| Smith, Chase  | Southern Power |  |
| Smith, Mark | CMC Steel  | Via Teleconference |
| Snyder, Bill | AEP Texas | Via Teleconference |
| Stice, Clayton |  | Via Teleconference |
| Tay, Sing | AES | Via Teleconference |
| True, Roy | ACES | Via Teleconference |
| Uy, Manny | Hunt Energy | Via Teleconference |
| Van Winkle, Kim | PUCT | Via Teleconference |
| Velasquez, Ivan | Oncor | Via Teleconference |
| Walker, Floyd | PUCT | Via Teleconference |
| White, Lauri | AEP Texas | Via Teleconference |
| Withrow, David | AEP |  |
| Xie, Fei | Austin Energy | Via Teleconference |
| Zang, Bryan | Potomac Economics | Via Teleconference |
| Zhang, Mandy | GEUS | Via Teleconference |
| Zhang, Wen | Potomac Economics | Via Teleconference |
| Zito, David | Gabel Associates | Via Teleconference |
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| *ERCOT Staff:* |  |  |
| Albracht, Brittney |  |  |
| Anderson, Troy |  |  |
| Arth, Matt |  | Via Teleconference |
| Azeredo, Chris |  | Via Teleconference |
| Bigbee, Nathan |  | Via Teleconference |
| Billo, Jeff |  | Via Teleconference |
| Boren, Ann |  |   |
| Carswell, Cory |  | Via Teleconference |
| Chen, Jian |  | Via Teleconference |
| Clifton, Suzy |  |   |
| Day, Betty |  | Via Teleconference |
| Du, Pengwei |  | Via Teleconference |
| Fohn, Doug |  |  |
| Gallo, Andrew |  | Via Teleconference |
| Garcia, Freddy |  | Via Teleconference |
| Gillmore, Gina |  | Via Teleconference |
| Gonzalez, Ino |  | Via Teleconference |
| Hailu, Ted |  | Via Teleconference |
| Hanson, Pamela |  |   |
| Holden, Curry |  | Via Teleconference |
| House, Julie |  | Via Teleconference |
| Huang, Fred |  | Via Teleconference |
| Jenkins, Darrell |  | Via Teleconference |
| Jirasek, Shawna |  | Via Teleconference |
| Levine, Jonathan |  | Via Teleconference |
| Lofton, Amy |  | Via Teleconference |
| Magarinos, Marcelo |  | Via Teleconference |
| Maggio, Dave |  | Via Teleconference |
| Mago, Nitika |  | Via Teleconference |
| Matlock, Robert |  | Via Teleconference |
| Maul, Donal |  | Via Teleconference |
| McGuire, Joshua |  | Via Teleconference |
| Mereness, Matt |  |  |
| Miner, Mark |  |  |
| Ögelman, Kenan |  |  |
| Opheim, Calvin |  | Via Teleconference |
| Parakkuth, Jayapal |  | Via Teleconference |
| Pedigo, Jake |  | Via Teleconference |
| Phillips, Cory |  | Via Teleconference |
| Rickerson, Woody |  |  |
| Ravulapalli, Sridevi |  | Via Teleconference |
| Rosel, Austin |  | Via Teleconference |
| Sanchez, Daniel |  | Via Teleconference |
| Scheel, Richard |  | Via Teleconference |
| Schmall, John |  | Via Teleconference |
| Shaw, Pamela |  | Via Teleconference |
| Solis, Stephen |  | Via Teleconference |
| Thomas, Shane |  | Via Teleconference |
| Thomson, Chad |  | Via Teleconference |
| Troublefield, Jordan |  |  |
| Wasik-Gutierrez, Erin |  |  |
| Woodfin, Dan |  |  |
| You, Haibo |  | Via Teleconference |
| Zhou, Emily |  | Via Teleconference |

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

Caitlin Smith called the February 14, 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)

*January 24, 2024*

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

Meeting Updates

*February 1, 2024 Public Utility Commission of Texas (PUCT) Meetings*

Ms. Smith reviewed the disposition of items considered at the February 1, 2024 PUCT meeting.

2024 TAC Goals (see Key Documents)

Market Participants offered clarifications to the draft 2024 TAC Goals. 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 IMM opinions for Revision Requests to be considered by TAC.

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

*Nodal Protocol Revision Request (NPRR) 1199, Implementation of Lone Star Infrastructure Protection Act (LSIPA) Requirements – URGENT (Waive Notice)*

*NPRR1210, Next Start Resource Test and Load-Carrying Test Frequency (Waive Notice)*

*NPRR1213, Allow DGRs and DESRs on Circuits Subject to Load Shed to Provide ECRS (Waive Notice)*

Ms. Smith noted that due to the rescheduling of the February TAC meeting, a successful motion to waive notice would be required for TAC to take action on NPRRs 1199, 1210, 1213 and Other Binding Document Revision Request (OBDRR) 051, Related to NPRR1216, Implementation of Emergency Pricing Program.

**Bob Helton moved to waive notice on NPRRs 1199, 1210, 1213 and OBDRR 051. Mike Wise seconded the motion.** **The motion carried unanimously.** *(Please see ballot posted with Key Documents.)*

Ms. Smith yielded the TAC Chair to Collin Martin for discussion of NPRR1199. Diana Coleman summarized NPRR1199. Doug Fohn reviewed the 2/13/24 ERCOT comments and responded to Market Participant questions and concerns regarding NPRR1199 requirements and potential scenarios. Mr. Martin noted this item could be considered for inclusion in the [Combined Ballot](#Combined_Ballot).

Ms. Coleman summarized NPRR1210. Ms. Smith noted this item could be considered for inclusion in the [Combined Ballot](#Combined_Ballot).

Ms. Coleman summarized NPRR1213. Market Participants reviewed the 2/12/24 Revised Impact Analysis and the Justification of Reason for Revision and Market Impacts for NPRR1213. Ms. Smith noted this item could be considered for inclusion in the [Combined Ballot](#Combined_Ballot).

Revision Requests Tabled at TAC (See Key Documents)

*OBDRR046, Related to NPRR1188, Implement Nodal Dispatch and Energy Settlement for Controllable Load Resources*

*Planning Guide Revision Request (PGRR) 105, Deliverability Criteria for DC Tie Imports*

TAC took no action on these items.

*NPRR1193, Related to SMOGRR027, Move OBD to Settlement Metering Operating Guide – EPS Metering Design Proposal*

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

*Nodal Operating Guide Revision Request (NOGRR) 245, Inverter-Based Resource (IBR) Ride-Through Requirements – URGENT*

Ms. Smith highlighted NOGRR245 discussion at the January 24, 2024 TAC meeting and noted that commenters were requesting additional time to continue to build consensus on the issues.

*Joint Commenters Presentation*

Eric Goff, representing NextEra Energy Resources, noted the 1/23/24 Joint Commenters comments and highlighted the productive ongoing discussions with ERCOT Staff.

*ERCOT Presentation*

In response to Market Participant questions and concerns, Stephen Solis provided an overview of the differing perspectives on NOGRR245.

Ms. Smith stated that NOGRR245 would be considered at the March 27, 2024 TAC, requested interested parties provide timely comments on NOGRR245, and noted that if consensus was not reached, Katie Rich would provide a comparison of the different options. TAC took no action on this item.

OBDRRs (See Key Documents)

*OBDRR051 (Waive notice)*

The successful motion to waive notice on OBDRR051was considered above with NPRRs 1199, 1210 and 1213. Market Participants discussed the possibility of moving Value of Lost Load (VOLL) language out of the Methodology for Implementing ORDC to Calculate Real-Time Reserve Price Adder and into the Protocols alongside other parameters and values proposed by NPRR1216, Implementation of Emergency Pricing Program, and requested tabling OBDRR051, awaiting NPRR1216. Ms. Smith noted this item could be considered for inclusion in the [Combined Ballot](#Combined_Ballot). Matt Mereness noted opportunities for further NPRR1216 discussions at the February 21, 2024 Real-Time Co-optimization plus Batteries Task Force (RTCBTF) meeting and March 6, 2024 Wholesale Market Subcommittee (WMS) meeting.

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

John Schatz reviewed RMS activities, highlighted the Lubbock Power and Light (LP&L) competitive market integration status, and presented a Revision Request for TAC consideration.

*Load Planning Guide Revision Request (LPGRR) 074, Align Definitions of IDRRQ, LRG, and LRGDG*

Mr. Martin noted this item could be considered for inclusion in the [Combined Ballot](#Combined_Ballot).

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

*ROS Chair – Ms. Rich, Luminant*

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

*NOGRR261, Move OBD to Section 8 – Procedure for Calculating RRS Limits for Individual Resources*

Ms. Rich summarized NOGRR261. Ms. Smith noted this item could be considered for inclusion in the [Combined Ballot](#Combined_Ballot).

WMS Report (see Key Documents)

Eric Blakey reviewed WMS activities and presented Revision Requests for TAC consideration.

*Settlement Metering Operating Guide Revision Request (SMOGRR) 027, Move OBD to Settlement Metering Operating Guide – EPS Metering Design Proposal*

*SMOGRR030, Move OBD to Settlement Metering Operating Guide – EPS Metering Facility Temporary Exemption Request Application Form*

Ms. Smith noted these items could be considered for inclusion in the [Combined Ballot](#Combined_Ballot).

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

*CFSG Charter*

Brenden Sager reviewed CFSG activities and presented the CFSG for TAC consideration. Ms. Smith noted these items could be considered for inclusion in the [Combined Ballot](#Combined_Ballot).

ERCOT Reports (see Key Documents)

*Forecast Adequacy of the Budgeted System Administration Fee*

Richard Scheel stated that the current budgeted System Administration Fee is forecasted to be adequate for 2025 and noted that the forecast would be presented at the February 26, 2024 Finance and Audit Committee meeting.

Other Business (see Key Documents)

*ERCOT Board/Stakeholder Engagement*

Ms. Boren provided an overview of the plan for TAC representatives to optionally engage in pre-scheduled small-group meetings with members of the Board, reviewed logistics, noted that the first Board engagement would be on February 27, 2024, and responded to Market Participant questions and concerns.

*Input on ERCOT Mobile App and ERCOT.com (Market Notice M-B012924-01)*

Mark Miner stated that ERCOT is requesting participants feedback on the redesign of the ERCOT mobile app and website, referenced the January 29, 2024 Market Notice M-B012924-01, reviewed the expected interaction and encouraged interested individuals to email: userexperience@ercot.com. Amy Lofton reviewed the anticipated timeline information gathering activities.

*Special TAC Meeting*

Ms. Smith noted the potential for an August 7, 2024 Special TAC meeting at 1:00 p.m. to consider the Ancillary Services Methodology prior to the August 20, 2024 Board meeting.

*RTCBTF Meeting*

Mr. Mereness stated that the March 19, 2024 RTCBTF meeting has been rescheduled to March 21, 2024.

Combined Ballot

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

* **To approve the January 24th Meeting Minutes as presented**
* **To approve the 2024 TAC Goals as revised by TAC**
* **To recommend approval of NPRR1199 as recommended by PRS in the 2/8/24 PRS Report as amended by the 2/13/24 ERCOT comments**
* **To recommend approval of NPRR1210 as recommended by PRS in the 2/8/24 PRS Report**
* **To recommend approval of NPRR1213 as recommended by PRS in the 2/8/24 PRS Report; and the 2/12/24 Revised Impact Analysis**
* **To recommend approval of NPRR1193 as recommended by PRS in the 10/12/23 PRS Report**
* **To table OBDRR051**
* **To recommend approval of LPGRR074 as recommended by RMS in the 2/6/24 RMS Report**
* **To approve the 2024 ROS Chair, Katie Rich**
* **To recommend approval of NOGRR261 as recommended by ROS in the 2/1/24 ROS Report**
* **To recommend approval of SMOGRR027 as recommended by WMS in the 2/7/24 WMS Report**
* **To recommend approval of SMOGRR030 as recommended by WMS in the 2/7/24 WMS Report**
* **To approve the CFSG Charter as presented**

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

Ms. Smith adjourned the February 14, 2024 TAC meeting at 11:24 a.m.

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

<https://www.ercot.com/calendar/02142024-TAC-Meeting> [↑](#footnote-ref-2)