**APPROVED**

**Minutes of the Special Technical Advisory Committee (TAC) Meeting – Webex Only**

**Monday, April 10, 2023 – 9:30 a.m.**

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| Attendance |  |  |
| *Members:* |  |  |
| Barnes, Bill | Reliant Energy Retail Services (Reliant) |  |
| Blakey, Eric | Pedernales Electric Cooperative (PEC) | Alt. Rep. for Christian Powell |
| Cochran, Seth | DC Energy |  |
| 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 |  |
| Franklin, Russell | Garland Power and Light (GP&L) |  |
| Goff, Eric | Residential Consumer |  |
| Haley, Ian | Luminant Generation (Luminant) |  |
| Hanson, Kevin  | National Grid Renewables (NG Renewables) |  |
| Harpole, Jay | APG&E |  |
| Helton, Bob | ENGIE  |  |
| Hendrix, Chris | Demand Control 2 |  |
| Jolly, Emily | Lower Colorado River Authority (LCRA) |  |
| Kent, Garret | CMC Steel Texas (CMC Steel) |  |
| Lange, Clif | South Texas Electric Cooperative (STEC) |  |
| Loving, Alicia | Austin Energy |  |
| Martin, Collin | Oncor Electric Delivery (Oncor) |  |
| Mercado, David | CenterPoint Energy (CNP) |  |
| Nix, Keith | Texas-New Mexico Power (TNMP) |  |
| Pokharel, Nabaraj | Office of Public Utility Counsel (OPUC) |  |
| Powell, Christian | PEC |  |
| Ross, Richard | AEPSC  |  |
| Sams, Bryan | Calpine Corporation (Calpine) |  |
| Schmitt, Jennifer | Rhythm Ops |  |
| Smith, Bill | Air Liquide |  |
| Smith, Caitlin | Jupiter Power |  |
| Surendran, Resmi | Shell Energy North America (SENA) |  |
| Wise, Mike | Golden Spread Electric Cooperative (GSEC) |  |
| Wittmeyer, Bob | Denton Municipal Electric (DME) | Alt. Rep. for Jose Gaytan |

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| *Guests:* |  |  |
| Ainspan, Malcolm | NRG |  |
| Aldridge, Ryan | AB Power |  |
| Allen, Thresa | Avangrid Renewables |  |
| Alsup, Barry | Citadel |  |
| Anderson, Kevin | CES |  |
| Arnett, Rick |  |  |
| Ashley, Kristy | CES |  |
| Bailey, Dan |  |  |
| Barati, Camron | Potomac Economics |  |
| Basaran, Harika | PUCT |  |
| Batra-Shrader, Monica | Enchanted Rock |  |
| Bell, Brad | Solar Proponent |  |
| Benson, Mariah | PUCT |  |
| Bernier, Benjamin | Mercuria |  |
| 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 |  |
| Bonskowski, Ned | Luminant Generation |  |
| Booth, Daniel | TexGen Power |  |
| Bunch, Kevin | EDF Trading |  |
| Burkhead, Brett | Calpine |  |
| Burke, Tom | RWE |  |
| Callender, Hudson | CPS Energy |  |
| Camet, Brooke | PUCT |  |
| Campo, Curtis | GP&L |  |
| Clifford, Brigid | PG Renewables |  |
| Coleman, Katie | TIEC |  |
| Cortez, Sarai | Trailstone Group |  |
| Cox, Jason | EQ Energy Advisors |  |
| Crist, Kelly | Engie North America |  |
| Daigneault, Ralph | Potomac Economics |  |
| D’Andrea, Craig | Citadel |  |
| DeLeon, Seth | DME  |  |
| Dharme, Neeraja | EDFT |  |
| Dollar, Zachary | PUCT |  |
| Duensing, Allison | Sarac Energy |  |
| Ghosh, Josh | CC Renew |  |
| Gross, Blake | AEPSC |  |
| Guermouche, Sid | Austin Energy |  |
| Hall, Matthew | Invenergy |  |
| Hankins, Laura | LCRA |  |
| Headrick, Bridget | CES |  |
| Hennings, Peter | Roscommon |  |
| Henson, Martha | Oncor |  |
| Holt, Blake |  |  |
| Horstmyer, Reid | Dynasty Power |  |
| Hubbard, John  | TIEC |  |
| Huynh, Thuy | Potomac Economics |  |
| Inman, Grant | BP |  |
| Johnson, Stephen | DME Power |  |
| Jones, Dan | DLJ Consulting, LLC |  |
| Jones, Randy | Mountaineer Market Advisors |  |
| Kilroy, Taylor | TPPA |  |
| King, Robert | Good Company |  |
| Kirby, Brandon | GEUS |  |
| Kleckner, Tom | RTO Insider |  |
| Koz, Brian | Alpha Taraxia |  |
| Kremling, Barry | GVEC |  |
| Lacek, Mollie | Talen Energy |  |
| Lasher, Warren | Lasher Energy Consulting |  |
| Lee, Jim | CNP |  |
| Lewis, Coleman | Pioneer Natural Resources |  |
| Lotter, Eric | GridMonitor |  |
| Macaraeg. Tad | Stem |  |
| Macias, Jessie | AEP Texas |  |
| Mack, Natalia | Repsol |  |
| Martin, Brandon | IGS Energy |  |
| Martin, Loretto | NRG |  |
| Mayers, Sharon | Worley |  |
| McIntyre, Ken | Plus Power |  |
| Mickey, Joel | Broad Reach Power |  |
| Mindham, David | EDP |  |
| Minero, Juan | Just Energy |  |
| Mock, Christopher | BP |  |
| Morris, Sandy | WETT |  |
| Nix, Emma | Leeward Energy |  |
| Noyes, Theresa | LCRA |  |
| Nguyen, Andy | Constellation Energy Generation |  |
| Okenfuss, James | Savion Energy |  |
| Oliver, Jon | PUCT |  |
| Orr, Rob | Lone Star Transmission |  |
| Palani, Ananth | GP&L |  |
| Reedy, Steve | CIM View Consulting |  |
| Pietrucha, Doug | Texas Advanced Energy |  |
| Ramaswamy, Ramya | PUCT |  |
| Rao, Anish | Apex Clean Energy |  |
| Rich, Katie | GSEC |  |
| Roybal, Tony | DME |  |
| Sager, Brenden | Austin Energy |  |
| Sandidge, Clint | Calpine |  |
| Sersen, Juliana | Baker Botts |  |
| Shaffer, Jarred  | Office of the Texas Governor |  |
| Showalter, Dana | Plus Power |  |
| Sickafoose, Lauren | EDF  |  |
| Siddiqi, Shams | Crescent Power Consulting |  |
| Sims, Chris | LP&L |  |
| Smith, Chase | Southern Power |  |
| Smith, Mark |  |  |
| Snyder, Bill | AEP |  |
| Stanton, Spencer | Orsted |  |
| Stephenson, Zach | Texas Electric Cooperatives |  |
| Teng, Shuye | LCRA |  |
| Thompson, Marie | Southern Power |  |
| Trevino, Melissa | Oxy |  |
| True, Roy | ACES  |  |
| Turner, Lucas | STEC |  |
| Varnell, John | Tenaska |  |
| Velasquez, Ivan | Oncor |  |
| Walcavich, Colin | NG Renewables |  |
| Walker, Floyd | PUCT |  |
| Wall, Perrin | CNP |  |
| Watson, Mark |  |  |
| Werner, Roth | PUCT |  |
| White, Laurie | AEP |  |
| Wu, Tiffany | PUCT |  |
| Xie, Fei | Austin Energy |  |
| Younger, Joseph | Texas Reliability Entity |  |
| Yu, Joel | Enchanted Rock |  |
| Zang, Hailing | TC Energy |  |
| Zang, James | Austin Energy |  |
| Zang, Wen | Potomac Economics |  |
| Zarnikau, Jay | University of Texas at Austin |  |
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| *ERCOT Staff:* |  |  |
| Albracht, Brittney |  |  |
| Anderson, Troy |  |  |
| Arth, Matt |  |  |
| Billo, Jeff |  |  |
| Boren, Ann |  |  |
| Chen, Jian |  |  |
| Clifton, Suzy |  |  |
| Day, Betty |  |  |
| Du, Pengwei |  |  |
| Fohn, Doug |  |  |
| Gonzalez, Ino |  |  |
| Hailu, Ted |  |  |
| Hobbs, Kristy |  |  |
| Huang, Fred |  |  |
| Kersulis, Jonas |  |  |
| Kettlewell, Bill  |  |  |
| Khodabakhsh, Fred |  |  |
| King, Ryan |  |  |
| Maggio, Dave |  |  |
| Mago, Nitika |  |  |
| Mantena, Dan |  |  |
| Matlock, Robert |  |  |
| Mereness, Matt |  |  |
| Moreno, Alfredo |  |  |
| Ögelman, Kenan |  |  |
| Parakkuth, Jayapal |  |  |
| Patterson, Mark |  |  |
| Phillips, Cory |  |  |
| Rosel, Austin |  |  |
| Rainwater, Kim |  |  |
| Roberts, Randy |  |  |
| Shaw, Pamela |  |  |
| Thompson, Chad |  |  |
| Tirupat, Venkat |  |  |
| Troublefield, Jordan |  |  |
| Urquhart, Thomas |  |  |
| Wasik-Gutierrez, Erin |  |  |
| Zerwas, Rebecca |  |  |

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

Caitlin Smith called the April 10, 2023 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.

Credit Finance Sub Group (CFSG)

*Confirmation of CFSG Members*

Brenden Sager presented the following designated CFSG Members for TAC approval:

* Jacqui Runholt, National Grid Renewables Energy Marketing LLC, Independent Power Marketer (IPM)
* Jimmy Kuo, CPS Energy, Municipal

**Ian Haley moved to approve the CFSG Membership additions as presented. Bob Wittmeyer seconded the motion. The motion carried unanimously.** *(Please see ballot posted with Key Documents.)*

Phase 2 Bridging Options (see Key Documents)[[1]](#footnote-2)

*TAC Recommendation*

Clif Lange reminded Market Participants of the Phase 2 Bridging Options discussion at the March 31, 2023 Special TAC meeting and reviewed the process to develop a TAC recommendation.

*Discussion on Enhancement of Operating Reserve Demand Curve (ORDC)*

*TAC-Requested ORDC Analysis*

Dave Maggio noted that the ERCOT recommendation for a preferred bridge solution is a multi-step floor to On-Line ORDC price adders and stated that at the first step, when Operating Reserve levels are equal to or less than 6,500 megawatts (MW), the price would be $20 per megawatt hour (MWh) and at the second step, when Operating Reserve levels are equal to or less than 7,000 MW and greater than 6,500 MW, the price would be $10 per MWh. Mr. Maggio presented back-cast analyses for potential modifications to ORDC, including Option 1 with an alternate multi-step floor and Option 2 with a Value-of-Lost-Load (VOLL) adjustment to $5,670 MWh, and reviewed the average fuel mix by Resource types and incremental revenue adjustments for all options. Mr. Maggio presented the key takeaways; summarized the benefits of the ERCOT preferred solution, including that it aligns with the Performance Credit Mechanism (PCM), targets the right resources at the right time, and helps address the Reliability Unit Commitment (RUC) issues. Mr. Maggio and Kenan Ögelman responded to Market Participant concerns and questions.

*Discussion on Procurement of Ancillary Services*

*Consumer Protection*

Eric Goff summarized the 4/7/23 Joint Comments of Consumers on TAC Recommended Bridge Solutions. Ned Bonskowski summarized the 4/9/23 Luminant Generation Response to the Joint Consumers’ 4/7/23 comments. Market Participants opposed to the ERCOT-recommended solution expressed concern for not exploring Dispatchable Reliability Reserve Service (DRRS) as a new Ancillary Service procured by ERCOT and believed the recommended approach would simply transfer wealth from the demand side to the supply side and the have potential for unintended consequences. They were also concerned about a potential lack of transparency and reporting.

**Bob Helton moved to endorse the ERCOT-preferred ORDC enhancement as a bridging solution. Kevin Hanson seconded the motion. The motion carried with six objections from the Consumer (City of Eastland, City of Dallas, CMC Steel, Air Liquide, Residential Consumer, OPUC) Market Segment and two abstentions from the Cooperative (PEC) and Independent Retail Electric Provider (IREP) (Rhythm Ops) Market Segment.** *(Please see ballot posted with Key Documents.)*

*TAC Communication to Reliability and Markets Committee*

Market Participants discussed presenting the TAC recommendation along with opposing views, support for publishing Indicative PCM, and the request for reporting, to the Reliability and Market Committee. Carrie Bivens (Independent Market Monitor (IMM)) requested ERCOT consider transparency measures and continued evaluation of the appropriateness of the 6500 MW floor. Mr. Ögelman reminded Market Participants that if this solution is implemented ERCOT would continue to evaluate it and offered to provide TAC additional analysis when observable functional data is available, in the appropriate forum. Mr. Ögelman also noted that any future changes would be at the direction of the Public Utility Commission of Texas (PUCT) and encouraged Market Participants to file comments there. Mr. Lange stated that TAC leadership would provide the TAC-endorsed recommendation and summarize the minority’s and IMM’s concerns.

Other Business

There was no Other Business.

Mr. Lange adjourned the April 10, 2023 TAC meeting at 12:19 p.m.

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

<https://www.ercot.com/calendar/04102023-Special-TAC-Meeting> [↑](#footnote-ref-2)