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

**Webex Only**

**Wednesday, March 5, 2021 – 1:00 p.m.**

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Attendance |  |  |
| *Members:* |  |  |
| Allen, Thresa | Avangrid Renewables |  |
| Bailey, Dan | Garland Power and Light |  |
| Barnes, Bill | Reliant Energy Retail Services |  |
| Blakey, Eric | Just Energy |  |
| Boyd, Phillip | City of Lewisville |  |
| Carpenter, Jeremy | Tenaska Power Services |  |
| Claiborn-Pinto, Shawnee | OPUC |  |
| Cochran, Seth | DC Energy |  |
| Easton, Eric | CenterPoint Energy |  |
| Gaytan, Jose | Denton Municipal Electric |  |
| Goff, Eric | Residential Consumer |  |
| Greer, Clayton | Morgan Stanley |  |
| Haley, Ian | Luminant Generation |  |
| Helton, Bob | ENGIE |  |
| Jolly, Emily | Lower Colorado River Authority | Alt. Rep. for John Dumas |
| Kee, David | CPS Energy |  |
| Kent, Garret | CMC Steel Texas |  |
| Lange, Clif | South Texas Electric Cooperative |  |
| Loving, Alicia | Austin Energy |  |
| Martin, Collin | Oncor Electric Delivery |  |
| McClendon, Shannon | Demand Control 2 |  |
| Nam, Young | Chariot Energy |  |
| Nix, Keith | Texas-New Mexico Power Company |  |
| Ross, Richard | AEP Service Corporation |  |
| Sams, Bryan | Calpine Corporation |  |
| Smith, Bill | Air Liquide |  |
| Surendran, Resmi | Shell Energy |  |
| True, Roy | Brazos Electric Cooperative |  |
| Wise, Mike | Golden Spread Electric Cooperative |  |

|  |  |  |
| --- | --- | --- |
|  |  |  |
| *Guests:* |  |  |
| Al-Nahhas, Jadd | Entergy |  |
| Alford, Anthony | CenterPoint Energy |  |
| Anderson, Kevin | Customized Energy Solutions |  |
| Arnold, Jonathan | Vertical Research Partners |  |
| Basaran, Harika | PUCT |  |
| Bedortha, Christian | Texpo Energy |  |
| Bell, Brad | Solar Proponent |  |
| Benoit, Jeff | PSM |  |
| Benson, Mariah | PUCT |  |
| Bhuiyan, Faruque | Austin Energy |  |
| Bivens, Carrie | Potomac Economics |  |
| Blackburn, Don | Hunt Utility |  |
| Blevins, Chad | Eco Smart Solutions |  |
| Bonskowski, Ned | Vistra Energy |  |
| Boratko, Daniel | Entergy |  |
| Brandin, Samuel | Able Grid Energy |  |
| Bridges, Robert | CenterPoint Energy |  |
| Broussard, Rick | Calpine Solutions |  |
| Bruce, Mark | Cratylus Advisors |  |
| Brunkenhoefer, Ken | Oncor |  |
| Buchheister, Bevin | NGA |  |
| Bunch, Kevin | EDF Trading |  |
| Burke, Tom | Invenergy |  |
| Burnett, Ben | CenterPoint Energy |  |
| Capuano, Linda | Rice University |  |
| Carroll, Pati | Entergy |  |
| Chamberlin, Jennifer | CPower Energy Management |  |
| Chatlani, Varasha | Boston Energy Trading and Marketing |  |
| Chediak, Mark | Bloomberg |  |
| Coleman, Diana | CPS Energy |  |
| Coultas, Ann | Enel |  |
| Cripe, Ramsey | Schneider Engineering |  |
| Crouch, Clif | PUCT |  |
| Cunningham, Lance | Pedernales Electric Cooperative |  |
| Daigneault, Ralph | Potomac Economics |  |
| De La Rosa, Lewis | Texas Reliability Entity |  |
| Detelich, David | CPS Energy |  |
| DeWitt, Charles | Pedernales Electric Cooperative |  |
| Donohoo, Kenneth | EPE Consulting |  |
| Downey, Marty | Jupiter Power |  |
| Downing, James | Modern Markets Intelligence |  |
| Dreyfus,Mark | MD Energy Consulting |  |
| Evans, Doug | South Texas Electric Cooperative |  |
| Foy, Ryan | Macquarie Group |  |
| Frazier, Amanda | Vistra |  |
| Garza, Beth | Potomac Economics |  |
| Geske, Robyn | KWTX |  |
| Gonzalez, Cesar | CPS Energy |  |
| Graham, Sophie | Adapt 2 Solutions |  |
| Gross, Blake | AEP Service Corporation |  |
| Guy, James | Eversheds Sutherland |  |
| Hackman, Richard | NERC |  |
| Hale, Josh | Southern Power Company |  |
| Hamilton, Brooks | TNMP |  |
| Hammons, Daniela | CenterPoint Energy |  |
| Hanson, Kevin | National Grid |  |
| Hasan, Prusha | Advanced Energy Economy |  |
| Hemmeline, Charlie | Texas Solar Power |  |
| Hendrix, Chris | Demand Control 2 |  |
| Henry, Mark | Texas Reliability Entity |  |
| Henson, Martha | Oncor |  |
| Hopley, George | Morgan Stanley |  |
| Hourihan, Mike | CPower Energy Management |  |
| Hudson, John | CenterPoint Energy |  |
| Huynh, Thuy | Potomac Economics |  |
| Jewell, Michael | Jewell and Associates |  |
| Johnson, Anthony | CenterPoint Energy |  |
| Jones, Liz | Oncor |  |
| Jones, Randy | Mountaineer Consulting |  |
| Khan, Amir | Chariot Energy |  |
| Khayat, Maribel | CenterPoint Energy |  |
| Kleckner, Tom | RTO Insider |  |
| Klump, Edward |  |  |
| KLTV |  |  |
| KPRCTV |  |  |
| Krajecki, Jim | Customized Energy Solutions |  |
| Kroskey, Tony | Brazos |  |
| KSAT News |  |  |
| Kun, Louise | Quantitative Business Analytics |  |
| KXAN |  |  |
| Leahy, Patrick | Just Energy |  |
| Leal, Mario | KENS 5 |  |
| Lee, Billy | Garland Power and Light |  |
| Lewis, Coleman | Pioneer Natural Resources |  |
| Lee, Jim | AEP TX |  |
| Li, Jialin | Swiss Re |  |
| Malik, Naureen | Bloomberg |  |
| Marsh, Rob | Monolith Energy |  |
| McCamant, Frank | McCamant Consulting |  |
| McKeever, Debbie | Oncor |  |
| Mendoza, Albert | Oxy |  |
| Mercado, David | CenterPoint Energy |  |
| Morehouse, Catherine | Industry Dive |  |
| Musher, Danny | Key Capture Energy |  |
| Naeher, Heather | Entergy |  |
| Nagarajan, Ramya | CTT |  |
| Neeraj, Gurpreet | Active Power Investments |  |
| Norris, Jim | LCRA |  |
| Nguyen, Andy | LCRA |  |
| Palani, Ananth | Garland Power and Light |  |
| Parks, Eva | NBC Universal |  |
| Pelletier, Eveline | Hydroquebec |  |
| Pickens, Mike | IHS Markit |  |
| Pilcher, Todd | ACES Power |  |
| Pokharel, Nabaraj | PUCT |  |
| Powell, Christian | Pedernales Electric Cooperative |  |
| Pressler, Glenn | CPS Energy |  |
| Price, Daniel | Hunt Energy Network |  |
| Pritchard, Jeff | Avangrid |  |
| Rainwater, Kim | LCRA |  |
| Randolph, Patrick | KXAS |  |
| Read, Brent | Navigant |  |
| Reed, Carolyn | CenterPoint Energy |  |
| Reedy, Steve | Potomac Economics |  |
| Reid, Walter | Advanced Power Alliance |  |
| Reinhart, Patrick | CenterPoint Energy |  |
| Rich, Katie | Golden Spread Electric Cooperative |  |
| Richardson, Gracie | KHOU |  |
| Richardson, Riley | Just Energy |  |
| Richmond, Michele | TCPA |  |
| Rickard, Stacy | Spectrum News 1 |  |
| Ritch, John | GEXA Energy |  |
| Rivera, Eli | CenterPoint Energy |  |
| Rivera, Imelda | CPS Energy |  |
| Robson, Matt | SESCO |  |
| Rogers, Arie | Active Power Investments |  |
| Roth, Werner | PUCT |  |
| Saha, Amlan | MJ Bradley & Associates |  |
| Santucci, Kristee | Volt |  |
| Sauter, Megan | Oncor |  |
| Schatz, John | Vistra |  |
| Schwarz, Brad | Sharyland |  |
| Scott, Kathy | CenterPoint Energy |  |
| Schauer, Trent | AB Power Advisors |  |
| Siddiqi, Shams | Crescent Power Consulting |  |
| Sing Rastogi, Rama | PUCT |  |
| Sithuraj, Murali | Austin Energy |  |
| Simpson, Lori | Exelon |  |
| Slaughter, Jeff | Just Energy |  |
| Smith, Caitlin | AB Power Advisors |  |
| Smith, Chase | Southern Power |  |
| Smith, Chris | Austin Energy |  |
| Smith, Dan | LCRA |  |
| Smith, Ellen | FTI Consulting |  |
| Smith, Mark | Mark Smith Law, LLC |  |
| Stuver, Doug | Avangrid |  |
| Sung, Ben | Point 72 |  |
| Taylor, Jennifer | RWE |  |
| Thomas, Josh | ACES Power |  |
| Tibbetts, Maeve | Pierce Atwood, LLP |  |
| Tipton, John | NRG |  |
| Toomey, Megan | Talen Energy |  |
| Trefney, Floyd |  |  |
| Traywick, Catherine | Bloomberg |  |
| Turner, Lucas | South Texas Electric Cooperative |  |
| Turner, Mina | AEP |  |
| Van Booven, Ashley | NBU |  |
| Velasquez, Ivan | Oncor |  |
| Villasana, Kristi | NBU |  |
| Viswanathan, Jay | PNT Financial |  |
| Walke, Pranil | Calpine |  |
| WFAA |  |  |
| Whalen, Emma | Community Impact |  |
| White, Lauri | AEP |  |
| Wittmeyer, Bob | Longhorn Power |  |
| Woitt, Wesley | CenterPoint Energy |  |
| Woods, Brad | Texas Reliability Entity |  |
| Yu, Joel | Enchanted Rock |  |
| Zarnikau, Jay | Frontier Energy |  |
| Zitkus, Anastasia Rachel | Entergy |  |

|  |  |  |
| --- | --- | --- |
|  |  |  |
| *ERCOT Staff:* |  |  |
| Albracht, Brittney |  |  |
| Anderson, Connor |  |  |
| Bernecker, John |  |  |
| Borachok, Bill |  |  |
| Boren, Ann |  |  |
| Bracy, Phil |  |  |
| Boswell, Bill |  |  |
| Butler, Luke |  |  |
| Chan Wu, Vanessa |  |  |
| Chen, Yong |  |  |
| Cheng, Yunzhi |  |  |
| Clifton, Suzy |  |  |
| Comstock, Read |  |  |
| Conto, Jose |  |  |
| Covington, Austin |  |  |
| Crawford, Richard |  |  |
| Daryabak, Mehdi |  |  |
| Devadhas Mohanadhas, Thinesh |  |  |
| Du, Pengwei |  |  |
| Ganjoo, Shalesh |  |  |
| Garcia, Freddy |  |  |
| Gnanam, Prabhu |  |  |
| Gonzalez, Ino |  |  |
| Haesler, Jameson |  |  |
| Hailu, Ted |  |  |
| House, Donald |  |  |
| Huang, Fred |  |  |
| Hughes, Lindsey |  |  |
| Hui, Hailong |  |  |
| Hull, Gibson |  |  |
| Jasper, Madeline |  |  |
| Jenkins, Darrell |  |  |
| Jin, Julie |  |  |
| Jones, Dan |  |  |
| Jowlabar, Nicholas |  |  |
| Khodabakhsh, Fred |  |  |
| Kersulis, Jonas |  |  |
| Lasher, Warren |  |  |
| Magarinos, Marcelo |  |  |
| Maggio, Dave |  |  |
| Mago, Nitika |  |  |
| Mantena, Dan |  |  |
| Martinez, Adam |  |  |
| Matlock, Robert |  |  |
| McGuire, Josh |  |  |
| Mereness, Matt |  |  |
| Morehead, Juliana |  |  |
| Ngai, Chris |  |  |
| Ögelman, Kenan |  |  |
| Orr, Rob |  |  |
| Phillips, Cody |  |  |
| Phillips, Cory |  |  |
| Reich, Zach |  |  |
| Rickerson, Woody |  |  |
| Rosel, Austin |  |  |
| Ruane, Mark |  |  |
| Scott, Vicki |  |  |
| Sharma, Sandip |  |  |
| Shaw, Pamela |  |  |
| Tamby, Jeyant |  |  |
| Teixeira, Jay |  |  |
| Tirupati, Venkata |  |  |
| Upadhyay, Aditi |  |  |
| Villanueva, Leo |  |  |
| Wattles, Paul |  |  |
| White, Steve |  |  |
| Woodfin, Dan |  |  |
| Wu, Jian |  |  |
| Yan, Ping |  |  |
| Zhengguo, Chu |  |  |

*Unless otherwise indicated, all Market Segments were participating.*

Clif Lange called the March 5, 2021 Special meeting to order at 1:00 p.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.

February 24, 2021 Board Update

Mr. Lange summarized the February 24, 2021 Urgent Board of Directors meeting, including the February 2021 Extreme Cold Weather event presentation by Bill Magness, ERCOT President and Chief Executive Officer (CEO), and the Market Financial Matters presentation by Carrie Bivens, Independent Market Monitor (IMM) Director.

Discussion of February Winter Event (see Key Documents)

Mr. Lange reminded Market Participants that the TAC discussion should focus on identifying and categorizing market issues from the 2021 Extreme Cold Weather event that fall under the purview of TAC and TAC Subcommittees, summarized the ERCOT priority items identified in the March 2, 2021 email sent to TAC Representatives from Mr. Magness regarding “ERCOT Initial Priorities for February 2021 Extreme Winter Weather Event Issues”, and expressed appreciation to TAC Subcommittee leadership for developing their lists.

*Retail Market Subcommittee (RMS) Update*

Jim Lee summarized the RMS February 2021 Winter Storm Lessons Learned and noted that Transmission Distribution Utility (TDU) communication issues were outside the scope of RMS. Market Participants and ERCOT Staff discussed the communication issues.

*Reliability and Operations Subcommittee (ROS) Update*

Chase Smith summarized ROS related items from the February 2021 Weather event, noted that the Load-related items were a high priority, and reviewed the prioritization process. Market Participants requested ERCOT develop a review matrix for seasonal Load shed responsibility. In regard to Market Participants’ questions on overlapping issues Mr. Lange encouraged TAC Subcommittee Working Groups and Task Forces to collaborate in reviewing the issues.

*Wholesale Market Working Group (WMS) Update*

Resmi Surendran summarized WMS Winter Storm related items from the February 2021 event and presented three priority categories: requiring immediate attention, process review, and performance review. Market Participants expressed support for TAC consideration of items requiring immediate attention.

Action Items

Mr. Ruane provided an update on financial issues and stated that ERCOT was continuing to develop a more

detailed reconciliation of the impact of short pays to provide to Qualified Scheduling Entities (QSEs) and Congestion Revenue Right Account Holders (CRRAHs). Mr. Ruane summarized the short payment and default allocation processes as discussed at the March 3, 2021 WMS meeting and described in the March 2, 2021 Market Notice, W-A030221-01 Short Payments for Failure to Make Invoice Payments. Mr. Ruane noted that ERCOT has collected all the letters of credit and other collateral available to cover short pays, and that although there could be additional defaults, ERCOT also anticipates additional resettlements due to timing and metering issues. Market Participants requested ERCOT provide a more detailed Market Notice on reimbursements to enable them to track short pay issues and invoices. Kenan Ögelman reviewed the current process and timelines to file for Settlement and Billing disputes and Alternative Dispute Resolution (ADR), encouraged Market Participants to file timely to preserve their rights, and stated that if the Public Utility Commission of Texas (PUCT) extends the timeline, ERCOT will distribute a Market Notice.

Mr. Lange stated that TAC Leadership and ERCOT will develop the master list of issues to be considered at the March 24, 2021 TAC meeting.

Mr. Lange adjourned the March 5, 2021 Special TAC meeting at 2:45 p.m.