**APPROVED**

**Minutes of the Wholesale Market Subcommittee (WMS) Meeting**

**ERCOT Austin – 7620 Metro Center Drive – Austin, Texas 78744**

**Monday, October 17, 2016 – 9:30 a.m.**

Attendance

*Members:*

|  |  |  |
| --- | --- | --- |
| Barnes, Bill | Reliant Energy Retail Services |  |
| Bierschbach, Erika | Austin Energy |  |
| Carpenter, Jeremy | Tenaska |  |
| Coleman, Diana | OPUC |  |
| Franklin, Russell | Garland Power and Light |  |
| Frazier, Amanda | GDF Suez | Alt. Rep for Bob Helton |
| Goff, Eric | Citigroup Energy |  |
| Gross, Blake | AEP Service Corporation |  |
| Kee, David | CPS Energy |  |
| Lindberg, Ken | Bryan Texas Utilities |  |
| Maduzia, Franklin | Dow Chemical |  |
| Markham, Craig | Enerwise Global Technologies | Alt. Rep for P. Dotson-Westphalen - |
|  |  | Via Teleconference |
| Messer, Tayaun | Brazos Electric Power |   |
| Morris, Sandy | Direct Energy |  |
| O’Hair, Patrick | Source Power and Gas |  |
| Schwarz, Brad | Sharyland Utilities |  |
| Shaw, Marka | Exelon | Alt. Rep for C. Lyons |
| Smith, Mark | Nucor |  |
| Stephenson, Randa | LCRA | Alt. Rep for J. Dumas |
| Such, Chris | E.ON |  |
| Thurnher, Greg | Shell Energy |  |
| Turner, Lucas | South Texas Electric Cooperative | Alt. Rep for C. Lange |
| Wall, Perrin | CenterPoint Energy |  |
|  |  |  |

The following proxy was assigned:

* Chris Brewster to Diana Coleman

*Guests:*

|  |  |  |
| --- | --- | --- |
| Abbott, Kristin | PUCT | Via Teleconference |
| Ainspan, Malcolm | NRG | Via Teleconference |
| Alford, Anthony | CenterPoint Energy | Via Teleconference |
| Anderson, Kevin | CES  | Via Teleconference |
| Bevill, Jennifer | CES |  |
| Bevill, Rob | SPEER | Via Teleconference |
| Blevins, Chad | Butler Firm | Via Teleconference |
| Boisseau, Heather | LCRA | Via Teleconference |
| Bonskowski, Ned | Luminant |  |
| Brandt, Adrianne | CPS Energy |  |
| Bruce, Mark | Cratylus Advisors | Via Teleconference |
| Bryant, Mark | PUCT | Via Teleconference |
| Burke, Tom | Golden Spread Electric Cooperative | Via Teleconference |
| Carter, Tim  | MP2 Energy |  |
| Cripe, Ramsey | Schneider Engineering |  |
| Cunningham, Lance | DME | Via Teleconference |
| DeLaRosa, Lewis | Texas Reliability Entity | Via Teleconference |
| Denney, Kristi | Potomac Economics |  |
| Detelich, David | CPS | Via Teleconference |
| Downey, Marty | Viridity Energy |   |
| English, Barksdale | Austin Energy |   |
| Gomez, Gabe | CES | Via Teleconference |
| Graham, Greg | Texas Reliability Entity | Via Teleconference |
| Hellinghausen, Bill | EDF Energy | Via Teleconference |
| Henry, Mark | Texas Reliability Entity |  |
| Henson, Martha | Oncor | Via Teleconference |
| Herman, Tom | Shell Energy | Via Teleconference |
| Jewell, Michael | Jewell and Associates | Via Teleconference |
| Jones, Randy | Calpine |  |
| Jones, Liz | Oncor |  |
| Kolo, Elta | GTM Research | Via Teleconference |
| Kroskey, Tony | Brazos Electric Power | Via Teleconference |
| Maloy, Shelby | DME | Via Teleconference |
| McCamant, Frank | McCamant Consulting | Via Teleconference |
| Mercado, David | CenterPoint Energy | Via Teleconference |
| Mueller, Paula | Texas Reliability Entity | Via Teleconference |
| Parvathaneni, Sirisha | Oncor | Via Teleconference |
| Peters, Patrick | CenterPoint Energy | Via Teleconference |
| Ponce, Matt | Oncor | Via Teleconference |
| Reed, Cyrus | Sierra Club | Via Teleconference |
| Reedy, Steve | Potomac Economics |  |
| Reid, Walter | Wind Coalition |  |
| Roybal, Tony | DME | Via Teleconference |
| Rothschild, Eric | GDS | Via Teleconference |
| Sandidge, Clint | Noble Solutions | Via Teleconference |
| Seth, Cochran | DC Energy |  |
| Siddiqi, Shams | Crescent Power |  |
| Smyth, Scott | PUCT | Via Teleconference |
| Spankuch, Andrew | SPG Energy | Via Teleconference |
| Tessema, Biruk | Austin Energy | Via Teleconference |
| Tijerina, Jonathan | CPS Energy |  |
| Totten, Jess | Osprey Energy | Via Teleconference |
| Trefny, Floyd |  | Via Teleconference |
| Varnell, John | Tenaska | Via Teleconference |
| Vinson, Paul | CPS Energy |  |
| Wallin, Shane | DME Power |   |
| Watson, Mark | S & P Global Platts | Via Teleconference |
| Werner, Roth | PUCT | Via Teleconference |
| White, Lauri | AEP |   |
| Whittle, Brandon | Megawatt Analytics |  |
| Wilson, Joe Dan  | Golden Spread Electric Cooperative | Via Teleconference |
| Wittmeyer, Bob | DME |  |
| Woodruff, Taylor | Oncor |   |
| Zake, Diana | Lone Star  | Via Teleconference |

*ERCOT Staff:*

|  |  |  |
| --- | --- | --- |
| Albracht, Brittney |  | Via Teleconference |
| Annab, Magie |  | Via Teleconference |
| Bezwada, Neelima |  | Via Teleconference |
| Billo, Jeff |  |   |
| Bivens, Carrie |  |  |
| Bracy, Phil |  | Via Teleconference |
| Butterfield, Lindsay |  | Via Teleconference |
| Chen, Jian |  | Via Teleconference |
| Chu, Zhengguo |  | Via Teleconference |
| Clifton, Suzy |  |  |
| Coon, Patrick |  | Via Teleconference |
| Daniels, Steve |  |  |
| Du, Pengwei |  | Via Teleconference |
| Gonzalez, Ino |  |  |
| Gnanam, Prabhu |  | Via Teleconference |
| Guo, Jack |  | Via Teleconference |
| Hailu, Ted |  |  |
| Hanson, Kevin |  | Via Teleconference |
| Holt, Blake |  | Via Teleconference |
| Jin, Julie |  | Via Teleconference |
| Jones, Dan |  |  |
| Krein, Steve |  | Via Teleconference |
| Landry, Kelly |  |  |
| Lasher, Warren |  | Via Teleconference |
| Lee, Alex |  | Via Teleconference |
| Li, Weifeng |  | Via Teleconference |
| Maggio, Dave |  |  |
| Mantena, Dan |  | Via Teleconference |
| Moreno, Alfredo |  | Via Teleconference |
| Opheim, Calvin  |  |  |
| Pabbisetty, Suresh |  | Via Teleconference |
| Phillips, Cory |  | Via Teleconference |
| Reed, Bobby |  | Via Teleconference |
| Roberts, Randy |  | Via Teleconference |
| Ruane, Mark |  |  |
| Searcy, Robbie |  | Via Teleconference |
| Sharma, Sandip |  |  |
| Shaw, Pamela |  | Via Teleconference |
| Surendran, Resmi |  |  |
| Thompson, David |  | Via Teleconference |
| Townsend, Aaron |  | Via Teleconference |
| Wattles, Paul |  | Via Teleconference |
| Woodfin, Dan |  |  |
| Wu, Jian |  | Via Teleconference |
| Xiao, Hong |  | Via Teleconference |

***Unless otherwise indicated, all Market Segments were present for a vote.***

2016 WMS Chair Jeremy Carpenter called the October 17, 2016 WMS meeting to order at 9:30 a.m.

Antitrust Admonition

Mr. Carpenter directed attention to the Antitrust Admonition, which was displayed.

Agenda Review

Mr. Carpenter noted that should WMS consider new Protocol Revision Subcommittee (PRS) referrals, a successful motion to waive notice would first be required.

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

*September 7, 2016*

**Chris Such moved to approve the September 7, 2016 WMS meeting minutes as submitted. Brad Schwarz seconded the motion. The motion carried with one abstention from the Independent Generator (GDF Suez) Market Segment.**

Technical Advisory Committee (TAC) Update and Assignments

Mr. Carpenter reviewed the disposition of items considered at the September 29, 2016 TAC meeting.

*WMS Open Action Items for TAC*

*9/25/14 – Voltage Reduction – assess cost issues and applicability to loads as well as market impacts*

Market Participants took no action on this item.

*4/24/14 – Evaluate concerns with bringing RUC units earlier than required because of start-up failures*

Market Participants discussed resolution of this open action item with implementation of Nodal Protocol Revision Request (NPRR) 744, Reliability Unit Commitment (RUC) Trigger for the Reliability Deployment Price Adder and Alignment with RUC Settlement; that the project is about to be initiated; and that new concerns have been raised regarding economic impacts of telemetry, RUC units starting up in extreme weather, and the RUC buyback process. Mr. Carpenter referred the evaluation of the new concerns to the QSE Managers Working Group (QMWG).

ERCOT Operations and Market Items

*SCED Failures Update*

Steve Daniels reviewed recent outages that occurred from July through October 2016 that impacted Security-Constrained Economic Dispatch (SCED). Mr. Daniels stated that ERCOT completed analysis of the events, identified the root causes and lessons learned, and would implement changes for future releases.

Inertia Presentation

Dan Woodfin provided an overview of system inertia including the inertia effect, solutions and impacts.

New Protocol Revision Subcommittee (PRS) Referrals

*NPRR798, Additional CRR Accounts Request*

*NPRR799, Updates to Outages of Transmission Facilities*

Seth Cochran reviewed NPRR799 and stated that the benefits of accurate and timely Outage Scheduler reporting includes an improvement in price forecasting, and the Resource owner’s ability to manage risk in the deliverability of energy and Ancillary Services. Market Participants expressed the concern that one hour may not be a sufficient time period with which to enter all outage types into the Outage Schedule, and that applying these reporting requirements only to outages that affect pricing may be satisfactory alternative. Market Participants agreed that further review of this issue by the Congestion Management Working Group (CMWG) and QMWG was needed.

*NPRR802, Settlements Clean-up*

Market Participants discussed the merits of NPRR802.

*NPRR804, Remove Posting Requirement for One-Line Diagram*

Carrie Bivens reviewed NPRR804 and requested additional time for ERCOT to develop alternative changes through a System Change Request (SCR) for WMS consideration.

**Eric Goff moved to waive notice in order to consider NPRR802 and NPRR804. Greg Thurnher seconded the motion. The motion carried unanimously.**

**Randa Stephenson moved to request PRS continue to table NPRR798 to allow additional time for review by the CMWG; NPRR799 to allow additional time for review by QMWG and CMWG; NPRR802 to allow additional time for review by QMWG; and NPRR804 to allow additional time for review by WMS. Mr. Goff seconded the motion. The motion carried unanimously.**

Revision Requests Tabled at PRS, Referred to WMS (see Key Documents)

*NPRR768, Revisions to Real-Time On-Line Reliability Deployment Price Adder Categories*

*NPRR776, Voltage Set Point Communication*

WMS took no action on these items.

*NPRR777, ERCOT-directed Dispatch of Price-Responsive Distributed Generation (DG)*

Mr. Thurnher continued his review of the concepts of NPRR777 and the shortcomings identified by Market Participants. Market Participants continued discussion of the possible Ancillary Service markets distributed Resources could be allowed to participate in and how such Resources should be dispatched and paid. Mr. Thurnher stated that he intended to propose revisions to NPRR777 that would include an option for price-responsive distributed Resources participation in SCED, streamline the ERCOT interconnection process, and leverage current Emergency Response Service (ERS) Resource telemetry requirements for distributed Resources. WMS took no action on this item.

CMWG (see Key Documents)

Mr. Thurnher reviewed recent CMWG activities and the Open Action Items for WMS. Market Participants discussed removing from the list: Monitor bid results upon implementation of SCR779 increase in bid limits, Pricing and Stability Limits, Dynamic Ratings in Off-Peak CRR Models, and Switchable Generation Resource Whitepaper. There were no objections.

Demand Side Working Group (DSWG) (see Key Documents)

Tim Carter reviewed recent DSWG activities.

*2016 DSWG Leadership*

**Ms. Stephenson moved to confirm David Goza as 2016 DSWG Vice Chair. Mr. Goff seconded the motion. The motion carried unanimously.**

*DSWG Procedures*

**Bill Barnes moved to approve the DSWG Procedures as submitted. Blake Gross seconded the motion. The motion carried unanimously.**

Market Credit Working Group (MCWG)

Mr. Barnes reviewed recent MCWG activities.

QMWG (see Key Documents)

Mr. Goff reviewed recent QMWG activities. Mr. Goff noted that QMWG continued its review of Ancillary Service enhancement options and that there was general consensus regarding changes to Responsive Reserve (RRS). He noted however that consensus was not reached for other proposed concepts, including changes to the timing for Non-Spinning Reserve (Non-Spin), and the creation of an inertia service. Market Participants debated the merits of the Ancillary Service enhancement options, but did not reach agreement. Mr. Carpenter requested Market Participants be prepared to again consider the topic of Ancillary Service enhancement options at the November 2, 2016 WMS meeting.

*2017 Ancillary Service Methodology*

Sandip Sharma presented proposed revisions for the 2017 Ancillary Service Methodology.

**Mr. Thurnher moved to endorse the 2017 ERCOT Methodologies for Determining Ancillary Service Requirements, as proposed by ERCOT. Ken Lindberg seconded the motion. The motion carried unanimously.**

Resource Cost Working Group RCWG (see Key Documents)

Paul Vinson reviewed recent RCWG activities and presented options for changes to the approval process for future RMR agreements. Market Participants discussed that all future RMR contracts should require ERCOT Board approval. Mr. Vinson offered to draft language for WMS consideration.

*Switchable Generation Resources Concept; Option 1 - Optional Switch and Option 2 - Required Switch and Settlement*

Mr. Vinson provided an update on the Switchable Generation Resources concept and stated that ERCOT has requested additional time to develop a new proposal to address concerns expressed at RCWG. Market Participants requested that the Switchable Generation Resources concept be noticed for a vote at the November 2, 2016 WMS Meetings.

Supply Analysis Working Group (SAWG)

Brandon Whittle reviewed recent SAWG activities.

Outage Coordination Working Group (OCWG) (see Key Documents)

*High Impact Transmission Elements (HITE) List*

Liz Jones presented an update on the High Impact Transmission Elements (HITEs) list stating that as the list proceeded through the stakeholder process, Market Participants realized additional analysis of congestion events was needed to better understand which elements were associated with a particular event. Market Participants discussed the HITE methodology and the Major Transmission Element (MTE) list, modifications to the list, and STEC and NRG comments. Ms. Jones stated the Outage Coordination Improvements Task Force (OCITF) is evolving to the Outage Coordination Working Group (OCWG), and with ERCOT would continue to review the annual list for improvements. Ms. Jones requested WMS consider the MTE list so that it could be effective March 1, 2017, with Outages reported by Transmission and/or Distribution Service Providers (TDSPs) by December 31, 2016.

**Mr. Barnes moved to endorse the 2017 MTE List as presented, inclusive of proposed changes per Column P and exclusive of additions requested by NRG. Mr. Lindberg seconded the motion. The motion carried unanimously.**

Other Business

*Review of Open Action Items*

Updates to the Open Action Items list were provided by WMS Working Groups.

*CRR Deration Issue*

Mr. Cochran reviewed the Congestion Revenue Right (CRR) deration process and opined that the proposed enhancements would further reduce inefficiency in the market between CRR and Day-Ahead Market (DAM) positions. Some Market Participants expressed support for Option 2, for hedging purposes. Steve Reedy expressed the concern that the current deration process does not eliminate the incentive for gaming, and stated that the Independent Market Monitor (IMM) supports incentives based on behavior. Mr. Carpenter referred the CRR deration issue to CMWG.

*2017 ERCOT Membership*

ERCOT Staff reminded Market Participants of the November 11, 2016 deadline for 2017 ERCOT Membership.

*No Report*

* Emerging Technologies Working Group (ETWG)
* Meter Working Group (MWG)

RMR Issues (see Key Documents)

*ERCOT Update Greens Bayou #5 – Market Notice*

Warren Lasher provided an update on the RMR agreement for Greens Bayou #5 stating that based on new criteria, ERCOT has determined the unit is still needed for reliability and that the current agreement remains in effect. Mr. Lasher noted that when Colorado Bend Unit #2 is operational, ERCOT could re-evaluate the agreement. Market Participants expressed concern regarding budget planning for RMR costs, and requested ERCOT provide additional clarity on the timeline and best path forward, and report monthly to WMS on the status of the RMR agreement.

*Analysis of Mitigated Offer Cap Curve Proposals for RMR Resources*

Dave Maggio presented the methodology and analysis for two concepts, each compared to NPRR784, Mitigated Offer Cap for RMR Units. Market Participants and Mr. Reedy expressed support for Approach 2, however Market Participants expressed concern for volatility when evaluated for SCED, the frequency of calculations, and implementation methods. Market Participants requested WMS consider the two methodologies at the November 2, 2016 meeting.

*Concept of Regional Reserves*

WMS took no action on this item.

Adjournment

Mr. Carpenter adjourned the October 17, 2016 WMS meeting at 4:05 p.m.

1. <http://www.ercot.com/calendar/2016/10/17/103694-WMS> [↑](#footnote-ref-1)