**APPROVED**

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

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

**Wednesday, November 1, 2017 – 9:30 a.m.**

Attendance

*Members:*

|  |  |  |
| --- | --- | --- |
| Allen, Thresa | Avangrid Renewables | Via Teleconference |
| Bierschbach, Erika | Austin Energy |  |
| Coleman, Diana | OPUC |  |
| DeLeon, Amanda | Tenaska | Alt. Rep. for J. Carpenter |
| Downey, Marty | Viridity Energy |  |
| Franklin, Russell | Garland Power and Light |  |
| Goff, Eric | Citigroup Energy |  |
| Greer, Clayton | Morgan Stanley |  |
| Gross, Blake | AEP Service Corporation |  |
| Helton, Bob | Dynegy |  |
| Kee, David | CPS Energy |  |
| Lange, Clif | South Texas Electric Cooperative |  |
| Lindberg, Ken | Bryan Texas Utilities |  |
| Morris, Sandy | Direct Energy | Via Teleconference |
| Plunkett, Derenda | CenterPoint Energy |  |
| Powell, Christian | LCRA | Alt. Rep. for J. Dumas |
| Sams, Bryan | Reliant Energy Retail Services |  |
| Sandidge, Clint | Calpine Energy Solutions |  |
| Schwarz, Brad | Sharyland |  |
| Shaw, Marka | Exelon |  |
| Smith, Mark | Nucor |  |
| Such, Chris | E. ON |  |
| Surendran, Resmi | Shell Energy | Alt. Rep. for G. Thurnher |
| Troy, Roy | Brazos Electric Power Cooperative | Via Teleconference |
| Wilson, Joe Dan | Golden Spread Electric Cooperative |  |
| Woodruff, Taylor | Oncor |  |

The following proxies were assigned:

* Franklin Maduzia to Mark Smith
* Chris Brewster to Diana Coleman
* Bob Helton to Marka Shaw at 11:30 a.m.

*Guests:*

|  |  |  |
| --- | --- | --- |
| Abbott, Kristin | PUCT | Via Teleconference |
| Anderson, Kevin | CES Energy |  |
| Barnes, Bill | Reliant Energy Retail Services |  |
| Bruce, Mark | Cratylus Advisors |  |
| Bryant, Mark | PUCT | Via Teleconference |
| Bunch, Kevin | EDF Energy Services |  |
| Burke, Tom | GSEC |  |
| Clevenger, Josh | Brazos Electric Cooperative | Via Teleconference |
| Coleman, Katie | TIEC |  |
| Cripe, Ramsey | Schneider Engineering | Via Teleconference |
| Daigneault, Ralph | Potomac Economics |  |
| Eckhoff, Christina | Texas Reliability Entity | Via Teleconference |
| Elliott, Andrew | ENGIE North America | Via Teleconference |
| Elliott, Christopher | Bank of America Merrill Lynch | Via Teleconference |
| Farley, Jack | Apex CAES | Via Teleconference |
| Foos, Richard | Calpine | Via Teleconference |
| Garza, Beth | Potomac Economics |  |
| Gray, Stan | Southern Cross |  |
| Haley, Ian | Vistra Energy |  |
| Hall, Tim | Southern Power | Via Teleconference |
| Harvey, Julia | PUCT |  |
| Hastings, David | SESCO | Via Teleconference |
| Hourihan, Mike | CPower Energy | Via Teleconference |
| Hudis, Gabriella | Gabel Associates | Via Teleconference |
| Huynh, Thuy | Potomac Economics | Via Teleconference |
| Jansen, Sunny | MidAmerican Energy | Via Teleconference |
| Juricek, Michael | Oncor | Via Teleconference |
| Matos, Christopher | EON | Via Teleconference |
| McClellan, Suzi | Good Company Assoc. |  |
| McTyre, Nick | TIEC |  |
| Moss, Steven | EON |  |
| Paff, Tom | Duke Energy | Via Teleconference |
| Parker, Ryan | Calpine | Via Teleconference |
| Powell, Christian | LCRA |  |
| Reid, Walter | Wind Coalition |  |
| Ricketts, David | Vistra Energy | Via Teleconference |
| Robinson, Rhonda | Calpine | Via Teleconference |
| Rochelle, Jennifer | CES | Via Teleconference |
| Roth, Werner | PUCT | Via Teleconference |
| Shumate, Walt | Shumate and Assoc. |  |
| Siddiqi, Shams | Crescent Power |  |
| Smith, Caitlin | Jewell and Associates |  |
| Stanfield, Leonard | Invenergy |  |
| Thompson, David | PEC |  |
| Wallin, Shane | DME | Via Teleconference |
| Watson, Mark | SPGlobal | Via Teleconference |
| Whittle, Brandon | Megawatt Analytics |  |
| Whitworth, Doug | Texas Reliability Entity | Via Teleconference |
| Williams, Aundrea, | NextEra |  |
| Wittmeyer, Bob | DME |  |
| Zake, Diana | Lone Star Transmission | Via Teleconference |

*ERCOT Staff:*

|  |  |  |
| --- | --- | --- |
| Albracht, Brittney |  | Via Teleconference |
| Bivens, Carrie |  |  |
| Boswell, Bob |  | Via Teleconference |
| Bracy, Phil |  | Via Teleconference |
| Butterfield, Lindsay |  | Via Teleconference |
| Change, Sean |  | Via Teleconference |
| Chen, Jian |  | Via Teleconference |
| Chu, Zhengguo |  | Via Teleconference |
| Clifton, Suzy |  | Via Teleconference |
| Gonzalez, Ino |  |  |
| Guo, Jack |  | Via Teleconference |
| Hamann, James |  | Via Teleconference |
| Hanson, Kevin |  | Via Teleconference |
| Holt, Blake |  | Via Teleconference |
| Jones, Dan |  |  |
| Kane, Erika |  | Via Teleconference |
| Krein, Steve |  | Via Teleconference |
| Landry, Kelly |  |  |
| Maggio, Dave |  |  |
| Mago, Nitika |  | Via Teleconference |
| Mickey, Joel |  |  |
| Morehead, Juliana |  | Via Teleconference |
| Moreno, Alfredo |  | Via Teleconference |
| Opheim, Calvin |  |  |
| Phillips, Cory |  |  |
| Sharma, Sandip |  |  |
| Shaw, Pam |  | Via Teleconference |
| Stice, Clayton |  |  |
| Thomas, Shane |  | Via Teleconference |
| Townsend, Aaron |  | Via Teleconference |
| Warnken, Pete |  | Via Teleconference |
| Woodfin, Dan |  |  |
| Xia, Hong |  | Via Teleconference |
| Zhang, Wen |  | Via Teleconference |

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

Antitrust Admonition

David Kee directed attention to the Antitrust Admonition, which was displayed.

Agenda Review

There were no changes to the agenda.

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

*September 27, 2017*

**Bob Helton moved to approve the September 27, 2017 WMS meeting minutes as submitted. Resmi Surendran seconded the motion. The motion carried unanimously.**

Technical Advisory Committee (TAC) Update and Assignments see (Key Documents)

Mr. Kee reviewed the disposition of items considered at the September 28, 2017 TAC meeting.

*Market Education on Real-Time Co-optimization*

Mr. Kee reviewed the TAC assignment for market education on Real-Time co-optimization. Market Participants requested future discussions take place in the afternoon of WMS meetings. Some Market Participants requested inclusion of market education on marginal losses. Other Market Participants objected to consideration of the issues until further direction from the Public Utility Commission of Texas (PUCT). Mr. Kee stated the issues will be considered at the December 6, 2017 WMS meeting.

ERCOT Operations and Market Items (see Key Documents)

*Proposed Changes to AS Methodology for 2018*

Sandip Sharma presented the proposed changes to the ERCOT Methodologies for Determining Minimum Ancillary Service Requirements for 2018. In response to Market Participant questions on the concerns of inertia and the recent Notifications of Suspension of Operations of several Generation Resources, Mr. Sharma stated that based on analysis of historical data and limited inertia contributions by these Resources, ERCOT anticipates minimal adjustments in procurement of Responsive Reserve (RRS) quantities. Dan Woodfin stated that ERCOT intends to host an inertia workshop within the next few months with the goal of providing education on the current process and requesting Market Participants’ input on using new and alternative Ancillary Service products that could address decreases in inertia. Mr. Sharma reviewed the proposed changes for determining Non-Spinning Reserve (Non-Spin)for 2018. Eric Goff requested further review of Non-Spin procurement. Mr. Kee assigned the issue of procuring Non-Spin and the alignment of Ancillary Services to the Qualified Scheduling Entity (QSE) Managers Working Group (QMWG).

**Ms. Surendran moved to endorse the ERCOT Methodologies for Determining Minimum Ancillary Service Requirements for 2018, as proposed by ERCOT. Clayton Greer seconded the motion. The motion carried with unanimously.**

*Review of Reliability Unit Commitment (RUC) Activity*

Mr. Woodfin reviewed the current RUC process, RUC instructions and July 17, August 4, August 5, and August 6, 2017 events. Market Participants expressed a concern for the inconsistencies in the reliability tool and the design of scarcity pricing. Mr. Woodfin explained the use of the forecasts and mechanisms in place to mitigate forecasting errors. Some Market Participants expressed a concern with a perceived lack of flexibility by ERCOT in its responses to uncertainty in Load forecasts and Current Operating Plans (COPs) and suggested that ERCOT’s RUC actions should be more market–based. Mr. Woodfin noted that ERCOT’s actions are constrained by its reliability obligations. Dave Maggio reviewed the reliability issues as seen by the RUC tool for the specified events. Market Participants requested ERCOT update the presentation to include the available capacity for different time slots and QMWG consider the following specific issues regarding RUC:

* Identify specific North American Electric Reliability Corporation (NERC) obligations to justify a RUC
* Limitations for delay of decision to RUC
* If tipping scale in favor of delay, what is mechanism
* Should Ancillary Services penalty curves for RUC be modified
* Prescreen information for operators
* Impacts to market and mechanisms to mitigate impacts

*Greens Bayou RMR Final Update*

Ino Gonzalez reviewed the Greens Bayou Reliability Must-Run (RMR) Agreement final costs and reminded Market Participants that the claw back provisions will be different on future RMR Agreements with the implementation of NPRR795, Provisions for Refunds of Capital Contributions Made in Connection with an RMR Agreement. Market Participants requested ERCOT provide an update on the capital contributions at the December 6, 2017 WMS meeting.

New Protocol Revision Subcommittee (PRS) Referrals

*Nodal Protocol Revision Request (NPRR) 848, Separate Clearing Prices for RRS*

Mr. Greer reviewed NPRR848 and stated by creating separate pricing for Load Resources and Primary Frequency Response capable Resources providing RRS, this NPRR meets the Independent Market Monitor (IMM) recommendation for Ancillary Service pricing. Katie Coleman reminded Market Participants of the timeline of the recommendation, that the 50% limit on Load Resources was a compromise solution, and that the Texas Industrial Energy Consumers (TIEC) oppose revisiting the concepts in NPRR667, Ancillary Service Redesign.

**Bryan Sams moved to request PRS continue to table NPRR848 to allow additional time for review by QMWG. Erika Bierschbach seconded the motion. The motion carried unanimously.**

*NPRR850, Market Suspension and Restart*

**Marty Downey moved to request PRS continue to table NPRR850 to allow additional time for review by QMWG. Mr. Sams seconded the motion. The motion carried unanimously.**

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

*NPRR807, Day-Ahead Market Price Correction*

*NPRR832, Disallow PTP Obligation Bids and DAM Energy Bids that Sink at Private Use Network Settlement Points Without a Load Distribution Factor - Urgent*

*NPRR835, Removing the Capacity Limits from Resources Providing Fast Responding Regulation Service (FRRS)*

*NPRR837, Regional Planning Group (RPG) Process Reform*

*NPRR838, Updated O&M Cost for RMR Resources*

*NPRR845, RMR Process and Agreement Revisions*

*NPRR847, Exceptional Fuel Cost Included in the Mitigated Offer Cap*

WMS took no action on these items.

*NPRR819, Resettlement Clean-Ups*

**Mr. Goff moved to endorse NPRR819 as amended by the 8/30/17 ERCOT comments. Mr. Sams seconded the motion. The motion carried unanimously.**

*NPRR828, Include Fast Frequency Response as a Subset of Responsive Reserve*

**Chris Such moved to endorse NPRR828 as amended by the 10/4/17 E.ON comments. Mr. Downey seconded the motion.** Market Participants discussed the merits of NPRR828. Aundrea Williams stated NextEra, as an owner of a 30 Megawatt (MW) battery, needed additional time to consider the potential impacts of NPRR828 and to confirm the requirements could be met. Market Participants that opposed NPRR828 stated it was not equitable to require existing Load and Generation Resources providing RRS to meet additional obligations absent an associated reliability concern and suggested that NPRR828 merely creates a new product around a particular technology type.

**Mr. Goff moved to table NPRR828 until December 2017. Clif Lange seconded the motion.** Steven Moss reminded Market Participants of the extensive vetting of NPRR828 at various stakeholder meetings, and that the intent of NPRR828 was to allow voluntary participation. Some Market Participants objected to tabling NPRR828 and opined that Fast Frequency Response (FFR), as proposed in NPRR828, was not the best solution and it did not meet a reliability need. **Mr. Goff withdrew his motion.**

Mr. Sharma reviewed the reliability benefits of NPRR828 and stated that FFR was designed to respond to a frequency event before Load Resources are triggered, enabling Load Resources to be available for the absolute worst event. Some Market Participants opined a better solution would be to create a Primary Frequency Response product separate from RRS, providing a place for batteries to participate and open up other opportunities for other Resources; and requested QMWG review the issue.

**The motion failed via roll call vote with 17 objections from the Consumer (3) (OPUC, Dow Chemical, Nucor), Cooperative (3) (LCRA, STEC, GSEC), Independent Generator (Dynegy), Independent Power Marketer (IPM) (3) (Tenaska, Citigroup, Morgan Stanley), Independent Retail Electric Provider (IREP) (3) (Reliant Energy Retail Services, Direct Energy, Calpine Energy Solutions), Investor Owned Utility (IOU) (AEPSC), and Municipal (3) (Austin Energy, CPS Energy, Bryan Texas Utilities) Market Segments; and six abstentions from the Consumer (City of Eastland), Independent Generator (2) (Exelon, Avangrid), and IOU (3) (Oncor, Sharyland, CenterPoint) Market Segments.** (*Please see ballot posted with Key Documents.)*

**Mr. Goff moved to recommend PRS reject NPRR828. Christian Powell second the motion. The motion carried with two objections from the Independent Generator (E.ON) and IPM (Shell Energy) Market Segments, and three abstentions from the IOU (Oncor, CenterPoint, Sharyland) Market Segment.**

Mr. Kee assigned the issue of the incorporation of energy storage resources into the current Ancillary Services portfolio to QMWG.

*NPRR841, Real-Time Adjustments to Day-Ahead Make Whole Payments due to Ancillary Services Infeasibility Charges*

**Mr. Goff moved to endorse NPRR841 as submitted with a recommended implementation date in 2019. Mr. Greer seconded the motion. The motion carried unanimously.**

*NPRR842, Study Area Load Information*

**Mr. Goff moved to endorse NPRR842 as submitted. Ms. Surendran seconded the motion. The motion carried unanimously.**

*NPRR844, Clarification to Outage Report*

**Mr. Goff moved to endorse NPRR844 as submitted. Mr. Sams seconded the motion. The motion carried unanimously.**

Congestion Management Working Group (CMWG) (see Key Documents)

Ian Haley reviewed recent CMWG activities, including the recommendation for the process for economic consideration for Outage scheduling assignment. This item was removed from the Open Action Items list.

Demand Side Working Group (DSWG)

**Mr. Greer moved to endorse Mona Tierney-Lloyd, EnerNOC, as 2017 DSWG Vice-Chair. Mark Smith seconded the motion. The motion carried unanimously.**

Market Credit Working Group (MCWG)

Bill Barnes reviewed recent MCWG activities.

QMWG

Mr. Goff reviewed recent QMWG activities.

Supply Analysis Working Group (SAWG) (see Key Documents)

*NERC process for updating Reserve Margin*

Mr. Sams reviewed recent SAWG activities, including the concept of a Target Reserve Margin. Mr. Sams reminded Market Participants that the Winter 2017 Final and Spring 2018 Preliminary Seasonal Assessment of Resource Adequacy (SARA) reports are now visible on the ERCOT website.

Other Business

*Protocol Section 6.5.1.1 and the Procedure for Procuring Emergency Capacity*

Mr. Barnes requested ERCOT Staff present a review of Protocol Section 6.5.1.1, ERCOT Control Area Authority, and the procedure for procuring emergency capacity at the December 6, 2017 WMS meeting.

*Review of Open Action Items*

This item was moved to the December 6, 2017 WMS meeting.

*2018 Membership/Segment Elections*

ERCOT Staff reminded Market Participants that the membership date of record is Friday, November 10, 2017 and stated that 2018 Segment Representative Elections would begin on Monday, November 13, 2107.

*2018 Market Meetings*

ERCOT Staff encouraged Working Group leadership to consider 2018 meeting schedules and forward their request to Stakeholder Services.

*No Report*

* Emerging Technologies Working Group (ETWG)
* Metering Working Group (MWG)
* Resource Cost Working Group (RCWG)

Adjournment

Mr. Kee adjourned the November 1, 2017 WMS meeting at 12:54 p.m.

1. <http://www.ercot.com/calendar/2017/11/1/108845-WMS>

   [↑](#footnote-ref-1)