**APPROVED**

**Wholesale Market Subcommittee (WMS) Meeting**

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

**Wednesday, July 6, 2016 – 9:30 a.m.**

Attendance

*Members:*

|  |  |  |
| --- | --- | --- |
| Barnes, Bill | Reliant Energy Retail Services |  |
| Bierschbach, Erika | Austin Energy |  |
| Carpenter, Jeremy | Tenaska |  |
| Coleman, Diana | OPUC |  |
| Dumas, John | LCRA |  |
| Franklin, Russell | Garland Power and Light |  |
| Goff, Eric | Citigroup Energy |  |
| Greer, Clayton | Morgan Stanley |  |
| Gross, Blake | AEP Service Corporation |  |
| Haley, Ian | Luminant | Alt. Rep. for N. Bonskowski |
| Helton, Bob | GDF Suez |  |
| Kee, David | CPS Energy |  |
| Lindberg, Ken | Bryan Texas Utilities |  |
| Lyons, Chris | Exelon | Via Teleconference |
| Maduzia, Franklin | Dow Chemical |  |
| Messer, Tayaun | Brazos Electric Power |  |
| Morris, Sandy | Direct Energy |  |
| Schwarz, Brad | Sharyland Utilities |  |
| Smith, Mark | Nucor |  |
| Spankuch, Andrew | Source Power and Gas | Alt. Rep. for P. O’Hair |
| Such, Chris | E.ON |  |
| Thurnher, Greg | Shell Energy |  |
| Turner, Lucas | STEC | Alt. Rep. for C. Lange |
| Wall, Perrin | CenterPoint Energy |  |
| Wilson, Joe Dan | Golden Spread Electric Cooperative | Alt. Rep. for M. Moore |

The following proxies were assigned:

* Peter Dotson-Westphalen to Bill Barnes
* Mike Grimes to Bob Helton

*Guests:*

|  |  |  |
| --- | --- | --- |
| Abbott, Kristin | PUCT | Via Teleconference |
| Ainspan, Malcolm | NRG | Via Teleconference |
| Ballouz, Hala | EPE Consulting | Via Teleconference |
| Bern, Alan | Oncor |  |
| Bertin, Suzanne | Texas Advanced Energy | Via Teleconference |
| Bevill, Jennifer | CES | Via Teleconference |
| Brandt, Adrianne | CPS Energy |  |
| Bryant, Mark | PUCT | Via Teleconference |
| Bunch, Kevin | EDF Trading |  |
| Burke, Tom | Golden Spread Electric Cooperative |  |
| Chatlani, Varsha | LCRA | Via Teleconference |
| Chhajed, Pushkar | Luminant | Via Teleconference |
| Cobos, Lori | Talen Energy |  |
| Downey, Marty | Viridity Energy |  |
| Dyer, Jake | Texas Coalition for Affordable Power | Via Teleconference |
| Garza, Beth | Potomac Economics |  |
| Gleeson, Noreen | Austin Energy | Via Teleconference |
| Graham, Greg | Texas Reliability Entity | Via Teleconference |
| Hellinghausen, Bill | EDF Trading | Via Teleconference |
| Henson, Martha | Oncor |  |
| Hoatson, Tom | LS Power | Via Teleconference |
| Huang, Feiran | Luminant | Via Teleconference |
| Hughes, Lindsey | Competitive Power | Via Teleconference |
| Jones, Randy | Calpine |  |
| Juricek, Mike | Oncor | Via Teleconference |
| Kroskey, Tony | Brazos Electric | Via Teleconference |
| LaMarr, Emelia Durdin | E.ON |  |
| Li, Young | Potomac Economics | Via Teleconference |
| Matos, Chris | Golden Spread Electric Cooperative | Via Teleconference |
| McCamant, Frank | Blue Bonnet Electric Cooperative |  |
| Mena, Hugo | EPE Consulting |  |
| Moore, Sheri | CenterPoint Energy | Via Teleconference |
| O’Bryan, Drew | Sierra Club |  |
| Palen, John | NRG |  |
| Penney, David | Texas Reliability Entity | Via Teleconference |
| Peters, Patrick | CenterPoint Energy | Via Teleconference |
| Reed, Cyrus | Sierra Club | Via Teleconference |
| Reedy, Steve | Potomac Economics |  |
| Reid, Walter | Wind Coalition |  |
| Ricketts, David | Energy Future Holdings |  |
| Ryskoski, Michael | Calpine | Via Teleconference |
| Sandidge, Clint | Noble Energy Solutions |  |
| Shumate, Walt | Shumate & Associates |  |
| Siddiqi, Shams | Crescent Power | Via Teleconference |
| Slagel, Ron | MICS | Via Teleconference |
| Smith, Caitlin | CLEAResults |  |
| Stephenson, Randa | LCRA |  |
| Taylor, William | Calpine |  |
| Tijerina, Jonathan | CPS Energy | Via Teleconference |
| Townsend, Aaron | Austin Energy | Via Teleconference |
| Varnell, John | Tenaska | Via Teleconference |
| Vinson, Paul | CPS Energy |  |
| Watson, Mark | S & P Global Platts | Via Teleconference |
| White, Lauri | AEP | Via Teleconference |
| Whittle, Brandon | Megawatt Analytics |  |
| Whitworth, Doug | Texas Reliability Entity | Via Teleconference |
| Wittmeyer, Bob | DME |  |
| Woodruff, Taylor | Oncor |  |
| Zake, Diana | Lonestar Transmission | Via Teleconference |
| Zhang, Chunliang | Potomac Economics | Via Teleconference |
| Zhou, Feng | Direct Energy | Via Teleconference |
| Zilliox, Skylar | RES Americas | Via Teleconference |

*ERCOT Staff:*

|  |  |  |
| --- | --- | --- |
| Albracht, Brittney |  |  |
| Annab, Maggie |  | Via Teleconference |
| Bezwada, Neelima |  | Via Teleconference |
| Bivens, Carrie |  |  |
| Blevins, Bill |  |  |
| Bracy, Phillip |  | Via Teleconference |
| Borkar, Sandeep |  | Via Teleconference |
| Boswell, Bill |  | Via Teleconference |
| Butterfield, Lindsay |  | Via Teleconference |
| Chang, Sean |  | Via Teleconference |
| Chen, Jian |  | Via Teleconference |
| Clifton, Suzy |  |  |
| Day, Betty |  | Via Teleconference |
| Gnanam, Prabhu |  |  |
| Guo, Jack |  | Via Teleconference |
| Holt, Blake |  | Via Teleconference |
| Krein, Steve |  | Via Teleconference |
| Landry, Kelly |  |  |
| Lazarus, Dana |  | Via Teleconference |
| Moreno, Alfred |  | Via Teleconference |
| Opheim, Calvin |  | Via Teleconference |
| Ogelman, Kenan |  |  |
| Phillips, Cory |  | Via Teleconference |
| Pysh, Danya |  | Via Teleconference |
| Ragsdale, Kenneth |  |  |
| Raish, Carl |  | Via Teleconference |
| Rios, Diana |  | Via Teleconference |
| Solis, Stephen |  | Via Teleconference |
| Surendran, Resmi |  |  |
| Thompson, David |  | Via Teleconference |
| Townsend, Aaron |  | Via Teleconference |
| Warnken, Pete |  |  |
| Woodfin, Dan |  | Via Teleconference |
| Xiao, Hong |  | Via Teleconference |

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

2016 WMS Chair Jeremy Carpenter called the July 6, 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 Nodal Protocol Revision Request (NPRR) 784, Mitigated Offer Caps for RMR Units, although not formally referred to WMS, would be considered during the Reliability Must Run (RMR) discussion.

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

*June 8, 2016*

**Bob Helton moved to approve the June 8, 2016 WMS meeting minutes as submitted. Bill Barnes seconded the motion. The motion carried unanimously.**

Technical Advisory Committee (TAC) Update and Assignments

Mr. Carpenter reminded Market Participants that TAC did not meet in June 2016.

ERCOT Operations and Market Items (see Key Documents)

*Switchable Generation Resources Whitepaper*

Bill Blevins presented the Switchable Generation Resources Whitepaper, stating that recent additions to switchable generators in the ERCOT region prompted a relook at the Reliability Unit Commitment (RUC) process for these types of Resources. Mr. Blevins reviewed current challenges, potential changes and ERCOT recommendations described in the whitepaper. Market Participants discussed the concern that Switchable Generation Resources could experience lost opportunity costs due to a requirement to remain interconnected to a particular Independent System Operator (ISO), due to an emergency event, when they could benefit financially from being interconnected to another ISO.

Mr. Blevins requested that Market Participants submit written comments to the whitepaper. Mr. Carpenter requested that further review of the whitepaper be taken up by the Congestion Management Working Group (CMWG), Qualified Scheduling Entity (QSE) Managers Working Group (QMWG) and Resource Cost Working Group (RCWG) and noted that following the discussion at the July 7, 2016 Reliability and Operations Subcommittee (ROS) meeting, a workshop may be scheduled.

Verifiable Cost Manual Revision Request (VCMRR) 013, Clarifications to Verifiable Cost Appeals Process

This item remains referred to RCWG. WMS took no action on this item.

New Protocol Revision Subcommittee (PRS) Referrals (see Key Documents)

*NPRR772, Clarification of Process for Transmission Outages Related to a Service Disconnection Request for a Generation Resource*

*NPRR775, Enhanced Implementation of Limits for Fast Responding Regulation Service*

*NPRR776, Voltage Set Point Communication*

**Clayton Greer moved to request PRS continue to table NPRR772, NPRR775, and NPRR776 to allow additional time for review by QMWG. Mr. Helton seconded the motion. The motion carried unanimously.**

*NPRR773, Broadening Scope of Acceptable Letter of Credit Issuers*

**Mr. Greer moved to endorse NPRR773 as amended by the 6/22/16 Credit Work Group (CWG) comments. Mr. Barnes seconded the motion. The motion carried with one abstention from the Independent Power Marketer (IPM) (Citigroup Energy) Market Segment.**

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

Greg Thurnher presented NPRR777, stating additional vetting was needed for formulating the best path forward for Distributed Generation.

**Mr. Thurnher moved to request PRS continue to table NPRR777 for four additional months to allow further discussion by WMS of the following items:**

* **Settlement: Does the current mapped distribution Resource treatment as a Resource align with current Resource Settlement practices?**
* **RUC: Does the current mapped distribution Resource treatment make a mapped distribution Resource eligible for RUC? Inclusion in transmission studies?**
* **Telemetry: Is telemetry adequate for ERCOT and achievable by mapped distribution Resources?**
* **Performance Metrics: Are existing Resource performance metrics appropriate and achievable for mapped distribution Resources?**
* **Other**

**Mr. Greer seconded the motion. The motion carried unanimously.**

*NPRR782 – Settlement of Infeasible Ancillary Services Due to Transmission*

**Ken Lindberg moved to endorse NPRR782 as submitted. Mr. Barnes seconded the motion.**

Market Participants discussed unresolved Settlement concerns and requested additional review by QMWG. Eric Goff stated that QMWG has reviewed the NPRR numerous times and could not reach consensus, however, QMWG could provide WMS with the potential opportunities and obstacles posted by NPRR782. **The motion carried unanimously.**

Mr. Carpenter requested QMWG review the related issues of clawback and Make-Whole Payments, and provide to WMS the potential opportunities and obstacles posed by NPRR782.

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

*NPRR759, Segmentation of the Total New Capacity Estimate in the ERCOT CDR (SAWG 05/04/16)*

WMS took no action on this item.

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

WMS took no action on this item.

*NPRR769, Alignment with VCMRR013, Clarifications to Verifiable Cost Appeals Process (RCWG 06/08/16)*

WMS took no action on this item.

RRGRR010, Seasonal Net Max Sustainable Rating Definitions (see Key Documents)

John Palen presented language changes in Resource Registration Glossary Revision Request (RRGRR) 010

and stated the Resource Data Working Group (RDWG) requested market input in identifying potential unintended consequences posed by the proposed ambient condition assumptions by Weather Zone for various groups that use the Seasonal net max sustainable rating data. Mr. Carpenter requested QMWG review.

CMWG (see Key Documents)

Mr. Thurnher reviewed recent CMWG activities.

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

Mr. Barnes reviewed recent DSWG activities and reported completion of the WMS assignment to investigate Demand response deployment impacts on Security-Constrained Economic Dispatch (SCED) after implementation of NPRR626, Reliability Deployment Price Adder. He noted that, for the May 1, 2016 under-frequency event, no reliability adder was calculated. Market Participants expressed concerns with technical issues and validations for telemetry; Mr. Carpenter directed QMWG and DSWG to follow up on these issues.

Market Credit Working Group (MCWG)

Mr. Barnes reviewed recent MCWG activities.

RCWG (see Key Documents)

Paul Vinson reviewed recent RCWG activities.

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

Brandon Whittle reviewed recent SAWG activities including the draft Long Term Reliability Assessment data link. Mr. Whittle conveyed ERCOT’s request for stakeholder input and directed comments to Pete Warnken. Mr. Whittle provided an update on NPRR759, Segmentation of the Total New Capacity Estimate in the ERCOT CDR. Market Participants discussed the various approaches, including the current Report on the Capacity, Demand and Reserves (CDR) in the ERCOT Region with additional forecasting data for changes in Load, capacity and reserves; reducing the time horizon of three to five years versus ten years; and how the CDR is used. Mr. Whittle encouraged Market Participants to attend SAWG meetings to help develop the SAWG recommendation.

QSE Managers Working Group (QMWG) (see Key Documents)

Mr. Goff reviewed recent QMWG activities.

Other Business

*Review of Open Action Items*

Mr. Carpenter updated the QMWG assignment, Ancillary Service enhancements, to include Load Resource percentage in Responsive Reserves (RRS).

*No Report*

* Emerging Technologies Working Group (ETWG)
* Meter Working Group (MWG)
* Outage Coordination Improvement Task Force (OCITF)

Reliability Must-Run (RMR) Discussion (see Key Documents)

*Must Run Alternative – Request for Proposal for Greens Bayou #5*

Prabhu Gnanam presented the Request for Proposal (RFP) Update on Must Run Alternative (MRA) for Greens Bayou #5, reviewed the background of events, and explained the RMR study, analysis and conclusions. Mr. Ragsdale reviewed the exit strategy from an RMR Agreement and the potential alternatives to RMR and stated that the goal for an MRA is to provide an acceptable solution that will provide savings.

Market Participants expressed concerns regarding Load Resource participation, Settlement, the RFP process timeline, and the MRA evaluation process. Mr. Gnanam referred Market Participants to the Final Determination Analysis posted on the MIS. Mr. Ragsdale stated that ERCOT intends to provide a detailed RFP for MRAs, and suggested that one or more Protocol revisions would be needed to change how the Real-Time energy price is calculated. Mr. Kenan Ögelman noted that there are standards to validate performance and recalled the MRA language was intentionally left imprecise during Protocol development to provide maximum flexibility and the ability to have alternatives to RMR. Mr. Ragsdale stated that he would address the issues of performance and Settlement in the RFP.

General Reliability Must Run (RMR) Concerns

Mr. Barnes presented NRG concern that requests for additional RMR Units, beyond Greens Bayou #5, may be forthcoming. Mr. Barnes opined that the current RMR process poses a threat to market principles both from a locational aspect and a Resources adequacy aspect, and will result in a historically inefficient deployment of capital if left unchanged. He further noted that RMR Units impact price signal and shift significant cost from the market to Loads; and presented short and long term solutions. John Dumas proposed creating “reserve zones” to help with local congestion, suggested exploring reserve requirements, and noted that different pricing might create the right incentives to alleviate some of the problem. Market Participants discussed the potential requirement that retirement announcements be greater than 90 days. Some participants suggested that this requirement could provide more time for study and adjustments. Beth Garza stated that all alternatives should be considered to provide the right incentives.

*Prioritized RMR Issues List (QMWG)*

Mr. Goff presented the Prioritized RMR Issues List developed by the QMWG. Market Participants discussed the issues, offered revisions, and confirmed the assignments to the WMS Open Action Items list as follows:

|  |  |  |
| --- | --- | --- |
| **Issues List Number** | **Description** | **Comment/Priority/Assignment** |
| 9 | SCED dispatch for transmission constraint issues   1. Mitigation | NPRR 784 to address this issue |
| 10 | Capital Contribution Claw back | ERCOT developing NPRR |
| 11 | Capital Contribution definition | ERCOT developing NPRR |
| 16 | Contract language clean up | ERCOT developing NPRR |
| 1 | NSO Notification Timeline (in 25.502 Substantive Rule?)   * 1. Is 90 day notice enough? | 1 (QMWG) |
| 2 | Obligation or Incentive For Early Notification | 1 (QMWG) |
| 3 | Transmission Planning Assumptions – should ERCOT forecast retirements?   * 1. Develop potential alternatives to potential retirements | 1 (CMWG/PLWG) |
| 5 | RMR Study case assumptions and Risk Analysis (less conservative for RMR than for transmission planning studies?); RMR for transmission constraint criteria | 2 (LCRA) (see also PGRR 42?) |
| 12/13/15/17 | MRA Issues | 3 (reconsider in September) |
| 8 | RMR commitment and dispatch transparency | 4 (ERCOT) |
| 4 | Get rid of transmission exit strategy for RMRs? | 5 |
| 6 | RMR for capacity criteria? | 5 (ROS/WMS chair discussion) |
| 14 | Contract length   * 1. “significant investment” language | 6 (RCWG) |
| 7 | Remove Output Schedule Option? | 7 (ERCOT) |
| New | Locational Reserves? | (discuss at next WMS for assignment) |
| New | Value of Lost Load as Cost Benefit | (LCRA/Suez) |
| New | ORDC capacity calculation | QMWG |

Priority scale: 1 - highest

Adjournment

Mr. Carpenter adjourned the July 6, 2016 WMS meeting at 3:25 p.m.

1. <http://www.ercot.com/calendar/2016/7/6/77700-WMS> [↑](#footnote-ref-1)