

Market Implementation Committee
PJM Conference & Training Center, Audubon, PA
April 15, 2020
9:00 a.m. – 4:00 p.m. EPT

Administration

Ms. Bhavana Keshavamurthy reviewed the Antitrust, Code of Conduct, Public Meetings/Media Participation and the WebEx Participant Identification Requirements.

The Committee approved the draft minutes from the Mar. 11, 2020 Market Implementation Committee meeting with **0 objections and 0 abstentions**.

Ms. Melissa Pilog provided an announcement related to the information session scheduled for Apr.21 at the Tech Change Forum. The session will review the Operating Cost and Maintenance Adder (VOM) review process. The meeting is listed as the Tech Change Forum Special Session- Maintenance Adder & Operating Cost Submission Process on the PJM Calendar.

First Readings

2. **Manual 18 revisions related to Price Responsive Demand**

Ms. Terri Esterly reviewed conforming revisions to Manual 18: PJM Capacity Market related to Price Responsive Demand. **The committee will be asked to endorse the manual revisions at the May MIC meeting.**

3. **PMA Credit Requirements for NITS Charges**

Ms. Bridgid Cummings reviewed the Problem Statement and Issue Charge addressing the Peak Market Activity (PMA) credit requirements for Network Integration Transmission Service (NITS) charges.

The committee will be asked to approve the issue charge, which includes use of the Quick Fix process outlined in Section 8.6.1 of Manual 34 at the May MIC meeting.

4. **Five Minute Dispatch and Pricing**

Mr. Tim Horger provided an update on the Five Minute Dispatch and Pricing Issue Charge and impacts to the Fast-Start Pricing order. Mr. Joe Bowring from Monitoring Analytics detailed the IMM's position on the timelines for the implementation of the changes detailed in the proposals. Mr. Adam Keech provided additional background on PJM's position on the need for a short-term and intermediate-term timelines as detailed in the PJM proposal. Stakeholders provided feedback and requested that this issue return as a second read at the May MIC.

[Issue Tracking: Five Minute Dispatch and Pricing](#)

Working Items

5. **Stability Limits in Markets and Operations**

Mr. Keyur Patel and Mr. Joe Ciabattone provided an overview of the generator constraint concept and reviewed the PJM package. Stakeholders provided feedback on the proposal and requested PJM consider alternatives to the package including a combination of the thermal surrogate and generator constraints model.

Stakeholders are requested to provide additional proposals and feedback prior to the May MIC meeting.

[Issue Tracking: Stability Limits in Markets and Operations](#)

Additional Items

6. **ARR/FTR Market Task Force Update**

Mr. Dave Anders provided an update on the current status and next steps for the ARR FTR Market Task Force.

7. **nGEM Project Update**

Mr. Todd Keech provided an update on the nGEM project. As per stakeholder request, Mr. Keech will continue to provide periodic update on the nGEM project at the MIC.

8. **Performance Assessment Interval Report Update**

Ms. Danielle Croop provided an informational update on the Performance Assessment Interval (PAI) settlements report.

9. **Regulation Market Settlement Agreement**

Mr. Eric Hsia provided an overview of PJM's filing in Docket No. ER19-1651-001, in compliance with the Commission's directive in its March 26, 2020 order approving the April 23, 2019 Regulation Market Settlement Agreement.

Informational Section

Tools Security Update

The presentation provides an overview of the PKI based authentication PJM plans to implement for the OASIS/Exschedule tools. Materials are posted as informational only.

Manual 03 Changes

Materials provide an overview of changes made to Manual 3 as part of the periodic review. Materials are posted as informational only.

Manual 03 Attachment E Automatic Sectionalizing Schemes

This document is posted in accordance with requirements stated in Manual 3, Section 5. Materials are posted as informational only.

Interregional Coordination Update

Materials are posted as informational only.

Credit Subcommittee (CS)

Meeting materials will be posted to the [CS website](#).

Demand Response Subcommittee (DRS)

Meeting materials will be posted to the [DRS web site](#).

Intermittent Resources Subcommittee (IRS)

Meeting materials will be posted to the [IRS web site](#).

Market Settlements Subcommittee (MSS)

Meeting materials are posted to the [MSS web site](#).

Report on Market Operations

The Report on Market Operations will be reviewed during the [MC Webinar](#).

Future Meeting Dates

| | | |
|-------------------|-----------|---|
| May 13, 2020 | 9:00 a.m. | PJM Conference & Training Center/ WebEx |
| June 3, 2020 | 9:00 a.m. | PJM Conference & Training Center/ WebEx |
| July 8, 2020 | 9:00 a.m. | PJM Conference & Training Center/ WebEx |
| August 5, 2020 | 9:00 a.m. | PJM Conference & Training Center/ WebEx |
| September 2, 2020 | 9:00 a.m. | PJM Conference & Training Center/ WebEx |

Author: Bhavana Keshavamurthy

Webex Meeting Attendees

| Names | Company Name | Sector |
|------------------------------------|---------------------------------------|--------------------|
| Morelli, Lisa (Chair) | PJM Interconnection, LLC | Not Applicable |
| Keshavamurthy, Bhavana (Secretary) | PJM Interconnection, LLC | Not Applicable |
| Abdur-Rahman, Muhsin | ABB | Not Applicable |
| Abramowitz, Jeremy | FERC | Not Applicable |
| Anders, David | PJM Interconnection, LLC | Not Applicable |
| Baizman, Aaron | PJM Interconnection, LLC | Not Applicable |
| Barker, Jason | Exelon Business Services Company, LLC | Transmission Owner |
| Benckek, Jim | American Transmission Systems, Inc. | Transmission Owner |
| Bernstein, Matthew | PJM Interconnection, LLC | Not Applicable |
| Bleiweis, Bruce | DC Energy LLC | Other Supplier |
| Boyle, Glen | PJM Interconnection, LLC | Not Applicable |
| Branch, John | NAES | Not Applicable |
| Bresler, Stu | PJM Interconnection, LLC | Not Applicable |
| Brodbeck, John | EDP Renewables North America, LLC | Other Supplier |
| Bruno, Patrick | PJM Interconnection, LLC | Not Applicable |
| Budney, Dave | PJM Interconnection, LLC | Not Applicable |
| Callaghan, Chris | PJM Interconnection, LLC | Not Applicable |
| Campbell, Bruce | EnergyConnect, Inc. | Other Supplier |
| Canchi, Devendra | Monitoring Analytics, LLC | Not Applicable |
| Canter, David | Appalachian Power Company | Transmission Owner |
| Carmean, Greg | OPSI | Not Applicable |
| Carrier, Ron | Direct Energy Business, LLC | Other Supplier |
| Carroll, Rebecca | PJM Interconnection, LLC | Not Applicable |

| | | |
|--------------------|---|----------------------|
| Chang, Sean | Shell Energy North America (US), LP | Other Supplier |
| Chen,Hong | PJM Interconnection, LLC | Not Applicable |
| Chmielewski, Brian | PJM Interconnection, LLC | Not Applicable |
| Christopher,Mahila | Ohio Public Utility Commission | Not Applicable |
| Chu, George | PJM Interconnection, LLC | Not Applicable |
| Ciabattoni, Joe | PJM Interconnection, LLC | Not Applicable |
| Cocco, Michael | Old Dominion Electric Cooperative | Electric Distributor |
| Coyne, Suzanne | PJM Interconnection, LLC | Not Applicable |
| Croop,Danielle | PJM Interconnection, LLC | Not Applicable |
| Crystle, Gil | UGI Development Company | Transmission Owner |
| Cummings, Bridgid | PJM Interconnection, LLC | Not Applicable |
| D'Alessandris, Lou | FirstEnergy Solutions Corp. | Transmission Owner |
| D'Antonio, Phil | PJM Interconnection, LLC | Not Applicable |
| Dasher, Brett | Energy Authority, Inc. (The) | Other Supplier |
| Dailey, Mike | Northern Virginia Electric Cooperative | Electric Distributor |
| Davis, Elizabeth | PJM Interconnection, LLC | Not Applicable |
| Davis, Jim | Dominion Energy | Transmission Owner |
| DeLosa, Joe | NJ Board of Public Utilities | Not Applicable |
| Denby,Brett | Northern Virginia Electric Cooperative | Electric Distributor |
| DeVita, Thomas | PJM Interconnection, LLC | Not Applicable |
| DePillo, Ray | PSEG Energy Resources and Trade LLC | Transmission Owner |
| Diiorio, Michelle | PSEG Energy Resources and Trade LLC | Transmission Owner |
| Dillon, Matt | UGI Development Company | Generation Owner |
| DiNicola, Laura | FirstEnergy Solutions Corp. | Transmission Owner |
| Dixon, Chad | Customized Energy Solutions. Ltd | Not Applicable |
| Dolan, Jim | PJM Interconnection, LLC | Not Applicable |
| Dorko, Keri | Monitoring Analytics, LLC | Not Applicable |
| Duensing, Allison | Saracen Energy | Other Supplier |
| Dugan, Chuck | East Kentucky Power Cooperative, Inc. | Transmission Owner |
| Egan, Amanda | PJM Interconnection, LLC | Not Applicable |
| Ejebe,Gabriel | OATI | Not Applicable |
| Ernst, Andrew | Archer Energy | Other Supplier |
| Esterly, Theresa | PJM Interconnection, LLC | Not Applicable |
| Everngam, Scott | Blue Horse Shoe Energy | Not Applicable |
| Fabiano, Janell | PJM Interconnection, LLC | Not Applicable |
| Fan, Zhenyu | PJM Interconnection, LLC | Not Applicable |
| Fazio,Danielle | Engelhart CTP (US) LLC | Other Supplier |
| Fernandez, Ray | PJM Interconnection, LLC | Not Applicable |
| Filomena, Guy | Customized Energy Solutions, Ltd. | Not Applicable |
| Fink, Sari | American Wind Energy Management Corporation | Not Applicable |
| Fitch, Neal | NRG Power Marketing LLC | Generation Owner |
| Fitzpatrick, Brian | PJM Interconnection, LLC | Not Applicable |
| Foldare, Kenneth | Tangible | Not Applicable |
| Ford, Adrien | Old Dominion Electric Cooperative | Electric Distributor |
| Frogg, Darrell | PJM Interconnection, LLC | Not Applicable |
| Fuess, Christian | PBF Power Marketing | Generation Owner |
| Gagen, Rod | Dominion Energy Generation Marketing, Inc. | Generation Owner |
| Gates, Terry | Appalachian Power Company | Transmission Owner |
| Garnett, Bryan | Duke Energy | Transmission Owner |
| Genuario,Gabrielle | PJM Interconnection, LLC | Not Applicable |

| | | |
|----------------------|---|----------------------|
| Gilani, Rehan | ConEdison Energy, Inc. | Other Supplier |
| Gorman, Kevin | Highlands Energy Group LLC (The) | Other Supplier |
| Greening, Michele | PJM Interconnection, LLC | Not Applicable |
| Greiner, Gary | PSEG Energy Resources and Trade LLC | Transmission Owner |
| Guntle, Vince | UGI Development Company | Generation Owner |
| Haque, Asim | PJM Interconnection, LLC | Not Applicable |
| Hanser, Erik | Michigan Public Service Commission | Not Applicable |
| Hastings, David | Market Interconnection LLC | Not Applicable |
| Hauske, Thomas | PJM Interconnection, LLC | Not Applicable |
| Heidorn, Richard | RTO Insider | Not Applicable |
| Helms, Joe | Rainbow Energy Marketing Corporation | Other Supplier |
| Herel, Suzanne | PJM Interconnection, LLC | Not Applicable |
| Hoang, Liem | PJM Interconnection, LLC | Not Applicable |
| Hoatson, Tom | LS Power | Not Applicable |
| Holdbrook, Ruth | Northern Virginia Electric Cooperative | Electric Distributor |
| Horning, Lynn Marie | Customized Energy Solutions, Ltd.* | Not Applicable |
| Horstmann, John | Dayton Power & Light Company (The) | Transmission Owner |
| Horton, Dana | Appalachian Power Company | Transmission Owner |
| Hsia, Eric | PJM Interconnection, LLC | Not Applicable |
| Huang, Jamie | ConEdison Energy, Inc. | Other Supplier |
| Hudis, Gabriella | Jersey Green Energy LLC | Other Supplier |
| Hull, Gerit | American Municipal Power, Inc. | Electric Distributor |
| Hurwich, Mark | Elliott Bay Energy Trading, LLC | Other Supplier |
| Hyzinski, Tom | GT Power Group | Not Applicable |
| Janicki, Diane | Boston Energy Trading & Marketing, LLC | Generation Owner |
| Jens, Tom | Blackoak Capital | Other Supplier |
| Jett, William | Duke Energy Business Services LLC | Generation Owner |
| Jha, Monica | PCI | Not Applicable |
| Johnson, Carl | Customized Energy Solutions, Ltd.* | Not Applicable |
| Josyula, Siva | Monitoring Analytics, LLC | Not Applicable |
| Kazerooni, Hamid | Invenergy, LLC | Generation Owner |
| Keech, Adam | PJM Interconnection, LLC | Not Applicable |
| Keegan, Jack | Just Energy | Other Supplier |
| Keenan, Mathew | Elwood Energy | Generation Owner |
| Kelly, Stephen | Brookfield Energy Marketing LP | Other Supplier |
| Kilgallen, Kevin | Avangrid Renewables, LLC | Generation Owner |
| Kogut, George | New York Power Authority | Other Supplier |
| Kozhuharov, Dimitar | Delaware Municipal Electric Corporation, Inc. | Electric Distributor |
| Kuo, David | DC Energy LLC | Other Supplier |
| LaRocque, Matthew | PJM Interconnection, LLC | Not Applicable |
| Leasure, Jill | Keystone-Conemaugh Projects, LLC | Other Supplier |
| Lejcar, Jamie | Allegheny Electric Cooperative, Inc. | Electric Distributor |
| Liang-Nicol, Cecilia | Monongahela Power Company d/b/a Allegheny Power | Transmission Owner |
| Libbos, Robin | FirstEnergy Solutions Corp. | Transmission Owner |
| Lieberman, Steve | American Municipal Power, Inc. | Electric Distributor |
| Lowe, Connie | Dominion Virginia Power | Not Applicable |
| Lu, Chenchao | PJM Interconnection, LLC | Not Applicable |
| Luna, Joel | Monitoring Analytics, LLC | Not Applicable |
| Mabry, David | McNees Wallace & Nurick LLC | Not Applicable |
| Marcino, Angelo | PJM Interconnection, LLC | Not Applicable |

| | | |
|---------------------|--|--------------------|
| Markiewicz, Cindy | FirstEnergy Solutions Corp. | Transmission Owner |
| McDaniel, John | Baltimore Gas and Electric Company | Transmission Owner |
| McGlynn, Paul | PJM Interconnection, LLC | Not Applicable |
| Meadors, Mandy | Duke Energy Ohio, Inc | Transmission Owner |
| Messina, Emmy | PJM Interconnection, LLC | Not Applicable |
| Midgley, Sharon | Exelon Business Services Company, LLC | Transmission Owner |
| Militello, Nicole | PJM Interconnection, LLC | Not Applicable |
| Monzon, Stephanie | PJM Interconnection, LLC | Not Applicable |
| Morelli, Lisa | PJM Interconnection, LLC | Not Applicable |
| Neubrandner, Kerry | DC Energy | Other Supplier |
| Nix, Emma | Gable Associates | Not Applicable |
| Olaleye, Michael | PJM Interconnection, LLC | Not Applicable |
| Ondayko, Brock | Appalachain Power Company | Transmission Owner |
| Pakela, Gregory | DTE Energy Trading, Inc. | Other Supplier |
| Patel, Keyurbhai | PJM Interconnection, LLC | Not Applicable |
| Pelletier, Eveline | Hydro-Quebec | Not Applicable |
| Peoples, John | Duquesne Light Company | Transmission Owner |
| Philips, Darlene | PJM Interconnection, LLC | Not Applicable |
| Pilong, Chris | PJM Interconnection, LLC | Not Applicable |
| Pilong, Melissa | PJM Interconnection, LLC | Not Applicable |
| Poulos,Greg | CAPS | Not Applicable |
| Price, Ruth | Division of the Public Advocate of the State of Delaware | End User Customer |
| Rajan , Abhijit | Dominion Resources | Not Applicable |
| Rayhorn, Carolyn | Dominion Virginia Power | Not Applicable |
| Reeping, Bob | Ohio Edison Company | Transmission Owner |
| Robinson, Becky | Vistra Energy | Not Applicable |
| Rohrbach, John | ACES Power | Not Applicable |
| Sasser, Jonathan | Customized Energy Solutions, Ltd.* | Not Applicable |
| Scheidecker, Paul | PJM Interconnection, LLC | Not Applicable |
| Schmitt, Jeff | PJM Interconnection, LLC | Not Applicable |
| Schuyler, Ken | PJM Interconnection, LLC | Not Applicable |
| Shah, Vijay | PJM Interconnection, LLC | Not Applicable |
| Shanker , Roy | H.Q. Energy Services (U.S.), Inc. | Other Supplier |
| Sillin, John | The Federal Energy Regulatory Commission | Not Applicable |
| Sotkiewicz, Paul | E-Cubed Policy Associates LLC | Not Applicable |
| Squibb, Bill | Ohio Valley Electric Corporation | Generation Owner |
| Sterling, John | First Solar, Inc | Not Applicable |
| Stern,Alex | PSEG Energy Resources and Trade LLC | Transmission Owner |
| Stone, Andy | PJM Interconnection, LLC | Not Applicable |
| Sturgeon, John | Duke Energy Carolinas, LLC | Other Supplier |
| Swalwell, Brad | Tangent Energy | Other Supplier |
| Sweeney, Rory | GT Power Group | Not Applicable |
| Tangirala, Subha | ABB | Not Applicable |
| Thompson, Matthew | XO Energy MA | Other Supplier |
| Tibbetts, Maeve | Pierce Atwood | Not Applicable |
| Toomey, Megan | Talen Energy Marketing, LLC | Generation Owner |
| Tribulski, Jennifer | PJM Interconnection, LLC | Not Applicable |
| Tyler, Catherine | Monitoring Analytics, LLC | Not Applicable |
| VanAmburg, Cari | Recurrent Energy | Generation Owner |
| Wadsworth, Joseph | Vitol Inc. | Other Supplier |



Draft Minutes

Walter, Laura
Ward, Michael
Warshel, Kim
Whitehead, Jeffrey
Yoder, Michael
Zemanek, Kevin

PJM Interconnection, LLC
PJM Interconnection, LLC
PJM Interconnection, LLC
GT Power Group
RTO Insider
Buckeye Power, Inc.

Not Applicable
Not Applicable
Not Applicable
Not Applicable
Not Applicable
Electric Distributor