



Market Implementation Committee PJM Conference & Training Center, Audubon, PA March 7, 2018 8:30 a.m. – 12:00 p.m. EPT

Administration

- 1. Ms. Christina Stotesbury and Ms. Chantal Hendrzak provided announcements; reviewed the Antitrust, Code of Conduct, and Public Meetings/Media Participation Guidelines, and Issue Tracking.
- 2. The committee approved the draft minutes from the February 7, 2018 Market Implementation Committee meeting by acclamation with 0 objections and 0 abstentions.

3. Administrative Updates

- A. Mr. Ray Fernandez, PJM, provided an update on the 5-minute settlements implementation scheduled for April 1, 2018.
- B. Mr. Hal Loomis, PJM, provided an update on behalf of the Credit Subcommittee.
- C. Mr. Todd Keech, PJM, provided an update on the Day-Ahead Market solve time performance.

Endorsements/Approvals

4. FTR Forfeiture Rule - Problem Statement & Issue Charge

- A. Ms. Sharon Midgley, Exelon, presented a problem statement and issue charge to address the FTR Forfeiture Rule. The committee approved the problem statement and issue charge by acclamation with 1 objection and 18 abstentions.
- B. Mr. Howard Haas, Monitoring Analytics, presented an alternate problem statement for discussion.

5. Must Offer Exemption Process - Problem Statement & Issue Charge

Ms. Midgley, Exelon, also presented a problem statement and issue charge to address the Must Offer Exemption process. The committee approved the problem statement and issue charge with 0 objections and 0 abstentions.

First Readings

6. Variable Operations & Maintenance Packages

Mr. Tom Hauske, PJM, provided a first read of three solution packages to address Variable Operations & Maintenance (VOM) Costs that were proposed in the VOM Special Session meetings. Additional information on the cost transition process will be presented at the MIC Special Session on March 20, and the committee will be asked to endorse a package at April MIC meeting.

Issue Tracking: Variable Operations & Maintenance





Working Issues

7. FTR Nodal Remapping

Mr. Brian Chmielewski, PJM, provided an overview of the FTR Nodal Remapping issue that was approved at the January MIC, and stakeholders were given an opportunity to provide interests and design components.

<u>Issue Tracking: FTR Nodal Remapping</u>

8. Long Term FTR Auction

- A. Mr. Howard Haas, Monitoring Analytics, presented follow-up analysis requested at the February MC Webinar on the revenue discrepancy between the Long-Term FTRs and Annual FTRs.
- B. Mr. Brian Chmielewski, PJM, provided an overview on the Long Term FTR issue and stakeholders were given an opportunity to provide interests and design components.

Issue Tracking: Long Term FTR Auction

9. Market Seller Offer Cap Balancing Ratio

Mr. Pat Bruno, PJM, provided an overview on the Offer Cap Balancing Ratio issue and stakeholders were given an opportunity to provide interests and design components.

Issue Tracking: Balancing Ratio Determination

Additional Updates

10. SPS Retirement Notification - Davis Creek

Mr. Mohit Singh, ComEd, presented the Davis Creek Special Protection Scheme retirement.

11. System Restoration Drill Update

Ms. Alpa Jani, PJM, provided an update on the upcoming System Restoration Drill planned for May 15-16, 2018. Invitations for participation will be sent on March 16, 2018.

12. CPL-DOM Reactive Transfer Interface

Mr. Chris Callaghan, PJM, presented the CPL-DOM Reactive Transfer Interface.

13. VOM Calculation Error

Dr. Catherine Tyler, Monitoring Analytics, provided an update on an error found in some units VOM calculation.

Informational Section

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 <u>IRS web site</u>.





Interregional Coordination Update

Materials are posted as informational only.

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

April 4, 2018	9:00 a.m.	PJM Conference & Training Center/ WebEx
May 2, 2018	9:00 a.m.	PJM Conference & Training Center/ WebEx
June 6, 2018	9:00 a.m.	PJM Conference & Training Center/ WebEx
July 11, 2018	9:00 a.m.	PJM Conference & Training Center/ WebEx
August 8, 2018	9:00 a.m.	PJM Conference & Training Center/ WebEx
September 12, 2018	9:00 a.m.	PJM Conference & Training Center/ WebEx
October 10, 2018	9:00 a.m.	PJM Conference & Training Center/ WebEx
November 7, 2018	9:00 a.m.	PJM Conference & Training Center/ WebEx
December 12, 2018	9:00 a.m.	PJM Conference & Training Center/ WebEx

In-Person Participants

Hendrzak, Chantal (Chair)	PJM Interconnection, LLC	Not Applicable
Stotesbury, Christina (Secretary)	PJM Interconnection, LLC	Not Applicable
Benchek, Jim	FirstEnergy Solutions Corp.	Transmission Owner
Benner, Scott	PJM Interconnection, LLC	Not Applicable
Bruno, Patrick	PJM Interconnection, LLC	Not Applicable
Bryson, Mike	PJM Interconnection, LLC	Not Applicable
Callaghan, Chris	PJM Interconnection, LLC	Not Applicable
Ciabattoni, Joseph	PJM Interconnection, LLC	Not Applicable
Egan, Amanda	PJM Interconnection, LLC	Not Applicable
Keech, Adam	PJM Interconnection, LLC	Not Applicable
McLaverty, Megan	PJM Interconnection, LLC	Not Applicable
Midgley, Sharon	Exelon Business Services Company, LLC	Transmission Owner
Perera, Asanga	PJM Interconnection, LLC	Not Applicable
Schmitt, Jeff	PJM Interconnection, LLC	Not Applicable

WebEx Participants

Ainspan, Malcolm	Energy Curtailment Specialists, Inc.	Other Supplier
Anders, David	PJM Interconnection, LLC	Not Applicable
Barker, Jason	Exelon Business Services Company, LLC	Transmission Owner
Bazar, Kevin	PJM Interconnection, LLC	Not Applicable
Bleiweis, Bruce	DC Energy LLC	Other Supplier
Bolan, Martin	FirstEnergy Solutions Corp.	Transmission Owner





Borgatti, Michael Bowring, Joe Britt, Debbie Brodbeck, John Brown, Rich Brown, William Campbell, Bruce Carmean, Gregory Carroll, Rebecca

Cawley, Troy Cerchio, Jerry Cham, Edrissa Chen, Jennifer Chmielewski, Brian

Chocarro Aguirrebengoa, Iker

Cocco, Michael
Cox, EdwardP
Coyle, Billy
Coyne, Suzanne
Croop, Danielle
Crystle, Gil
Currier ES, Jeff
Dadourian, John
Dantonio, Phil
Dasher, Brett

Daugherty, Suzanne
Davis, Elizabeth
Davis, James
DeLosa, Joseph
Denby, Brett
Depillo, Raymond
Di Iorio, Michelle
Diaz, Juan
Diiorio, Michelle
Dillon, Matthew
Dirani, Rami
Dolan, Ryan
Domian, Christin

Drauschak, Lisa

Dugan, Chuck

Engelmann, Alan

Driscoll, Mary Ellen

Gabel and Associates Monitoring Analytics, LLC

North Carolina Electric Membership Corporation

EDP Renewables North America, LLC

PJM Interconnection, LLC VECO Power Trading EnergyConnect, Inc.

OPSI

PJM Interconnection, LLC PJM Interconnection, LLC Monitoring Analytics, LLC Tradewind Energy, Inc.

Natural Resources Defense Council

PJM Interconnection, LLC

E.ON Climate & Renewables North America, Inc.

Old Dominion Electric Cooperative Appalachian Power Company Dominion Energy Marketing, Inc. PJM Interconnection, LLC PJM Interconnection, LLC UGI Development Company Dominion Virginia Power Monitoring Analytics, LLC PJM Interconnection, LLC Energy Authority, Inc. (The) PJM Interconnection, LLC Talen Energy Marketing, LLC Dominion Energy Marketing, Inc.

DE Public Service Commission

Norther Virginia Electric Cooperative (NOVEC)
PSEG Energy Resources and Trade LLC
PSEG Energy Resources and Trade LLC
Customized Energy Solutions, Ltd.*
PSEG Energy Resources and Trade LLC

UGI Development Company PJM Interconnection, LLC American Municipal Power, Inc. Mitsubishi Electric Power Products Inc.

PJM Interconnection, LLC PJM Interconnection, LLC

East Kentucky Power Cooperative, Inc. Commonwealth Edison Company

Not Applicable
Not Applicable

Electric Distributor

Other Supplier Not Applicable Not Applicable

Other Supplier Not Applicable Not Applicable Not Applicable

Not Applicable Not Applicable Not Applicable Not Applicable

Not Applicable
Generation Owner
Electric Distributor
Transmission Owner
Generation Owner
Not Applicable

Not Applicable
Transmission Owner
Not Applicable
Not Applicable
Not Applicable

Not Applicable
Other Supplier
Not Applicable
Generation Owner
Generation Owner

Not Applicable Electric Distributor Other Supplier Transmission Owner

Not Applicable
Other Supplier
Generation Owner
Not Applicable
Electric Distributor
Not Applicable
Not Applicable
Not Applicable
Transmission Own

Transmission Owner
Transmission Owner





Fabiano, Janell

Feierabend ES, Rick ES

Fernandez, Ray Filomena, Guy Fink, Sari

Fitch, Neal

Foladare, Kenneth

Ford, Adrien Fox, Angela Fuess, Christian Fusek, Dave

Gahimer, Mike
Garbini, Marjorie
Gebolys, Debbie
Genuario, Gabrielle
Giacomoni, Anthony

Gilani, Rehan Glazer, Craig Gorman, Kevin Greening, Michele Haas, Howard

Hall, Tim

Hanser, Erik Harmon, Mike

Hauske, Thomas Hayik, Seth Heinle, Frederick

Hlggins, Sharon Hoatson, Tom

Hohenshilt, Jennifer Holdbrook, Ruth Holland, Risa

Holter, Natasha Horger, Tim Horstmann, John Horton, Dana

Hugee, Jacqulynn Huntoon, Stephen Hurwich, Mark Hyzinski, Tom

Janicki, Diane

PJM Interconnection, LLC

Dominion Virginia Power PJM Interconnection, LLC

Customized Energy Solutions, Ltd.

Office of the Ohio Consumers' Counsel

NRG Power Marketing LLC

Tangibl

Old Dominion Electric Cooperative

Wylan Energy, L.L.C.

Other

Appalachian Power Company

IN Office of Utility Consumer Counselor Potomac Electric Power Company Public Utilities Commission of Ohio (The)

PJM Interconnection, LLC PJM Interconnection, LLC ConEdison Energy, Inc. PJM Interconnection, LLC

Highlands Energy Group LLC (The)
PPL Electric Utilities Corp. dba PPL Utilities

Monitoring Analytics, LLC

Southern OPCO's: APC, GPC, GuPC, MPC, SPC -

J&S

Michigan Public Service Commission

Union Electric Company d/b/a Ameren Missouri

PJM Interconnection, LLC Monitoring Analytics, LLC Office of the People's Counsel

Duke Energy Commercial Asset Management, Inc.

Riverside Generating, LLC Talen Energy Marketing, LLC Northern Virginia Electric Cooperative

PJM Interconnection, LLC
PJM Interconnection, LLC

PJM Interconnection, LLC

Dayton Power & Light Company (The)

Appalachian Power Company PJM Interconnection, LLC

NextEra Energy Power Marketing, LLC Elliott Bay Energy Trading, LLC

GT Power Group

Boston Energy Trading & Marketing, LLC

Not Applicable

Not Applicable

Not Applicable Not Applicable

End User Customer

Generation Owner

Not Applicable

Electric Distributor

Not Applicable

Not Applicable

Transmission Owner End User Customer

Electric Distributor

Not Applicable

Not Applicable
Not Applicable

Other Supplier

Not Applicable Other Supplier

Transmission Owner

Not Applicable

Not Applicable

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Other Supplier

Not Applicable Not Applicable

End User Customer

Generation Owner

Other Supplier

Generation Owner Electric Distributor

Not Applicable

Not Applicable

Not Applicable

Transmission Owner
Transmission Owner

Not Applicable

Generation Owner

Other Supplier Not Applicable

Generation Owner





Janicki, Diane Jardot, Gina Jha, Monica Johnson, Carl Josyula, Siva Kauffman, Brian

Keeney, Jerry Kelly, Stephen Kenney, Susan Kharod, Ankit Kilgallen, Kevin Kimmel, David

Kingston, Amber Kinser, Cynthia Knernschield, Jenjira

Kogut, George LaRocque, Matthew

Leasure, Jill
Lee, Lori Murphy
Lejcar, Jamie
Leopold, Chris
Liang-Nicol, Cecilia
Libbos, Robin

Lieberman, Steven

Lind, Clarke

Liu McKenna, Phyllis Logan, Sharon Long, Glenn Long, Matt Loomis, Harold Lowe, Connie Lu, Chenchao Luna, Joel Mabry, David

Mancuso, Melanie

Mariam, Yohannes

Markiewicz, Cindy Martin, Valerie

Marton, David Marzewski, Skyler Matheson, Doug Boston Energy Trading & Marketing, LLC Essential Power Rock Springs, LLC

PCI

Customized Energy Solutions, Ltd.*

Monitoring Analytics, LLC
NRG Curtailment Solutions
Dynegy Marketing & Trade, LLC
Brookfield Energy Marketing LP
PJM Interconnection, LLC
PJM Interconnection, LLC
Avangrid Renewables LLC
PJM Interconnection, LLC

North Carolina Electric Membership Corporation

Tennessee Department of Agriculture
Old Dominion Electric Cooperative
New York Power Authority
PJM Interconnection, LLC

Keystone Projects

PJM Interconnection, LLC Allegheny Electric Cooperative, Inc.

Appalachian Power Company

Monongahela Power Company d/b/a Allegheny Power

FirstEnergy Solutions Corp.

American Municipal Power, Inc.

Powerex Corporation

Public Service Electric & Gas Company
The Federal Energy Regulatory Commission

PJM Interconnection, LLC
AEP Energy Partners, Inc.
PJM Interconnection, LLC
Dominion Virginia Power
PJM Interconnection, LLC
Monitoring Analytics, LLC
McNees Wallace & Nurick LLC
FirstEnergy Solutions Corp.

Office of the Peoples Counsel for the District of

Columbia

EnerNOC, Inc.

FirstEnergy Solutions Corp.

The Federal Energy Regulatory Commission

FirstEnergy Solutions Corp.
Monitoring Analytics, LLC

Generation Owner

Transmission Owner

Not Applicable Not Applicable Not Applicable Other Supplier Generation Owner

Other Supplier Not Applicable Not Applicable Generation Owner Not Applicable Electric Distributor

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Electric Distributor
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Not Applicable

Transmission Owner

End User Customer

Transmission Owner

Not Applicable Transmission Owner

Not Applicable
Other Supplier





Maxwell, Melissa McAdams, Julius McAlister, Lisa Mendelsohn, Mark Metzler, Jakob Miller, John Morelli, Lisa Nawaz, Zainab Nix, Emma

Nawaz, Zainab Nix, Emma Norton, Chris O'Connell, Robert OHara, Christopher Olaleye, Michael Olinger, Robert Ondayko, Brock

Pelletier, Eveline Peoples, John Philips, Marjorie Pilong, Melissa Poulos, Greg Pratzon, David Price, Mark

Park, Jinny

Price, Ruth

Prokop, Brenda Rajan ES, Abhijit Ramsey, James Rayhorn ES, Carolyn

Reeping, Bob Robinson, Maria Robson, Matt

Rodriguez Reyes, Eric Rohrbach, John Rothey, Kristin Ruck, Andrew Rushing, Nathan Saini, Ishwar

Salaneck, Alexandra Sasser, Jonathan Scarpignato, David Schuyler, Ken PJM Interconnection, LLC Red Wolf Energy Trading, LLC American Municipal Power, Inc. Noble Americas Gas & Power Corp.

Castleton Commodities Merchant Trading L.P.

Commonwealth Edison Company
PJM Interconnection, LLC
NJ Board of Public Utilities
PJM Interconnection, LLC
American Municipal Power, Inc.
PPGI Fund A/B Development, LLC

PJM Interconnection, LLC PJM Interconnection, LLC

Keystone Projects

Appalachain Power Company PJM Interconnection, LLC

Hydro-Quebec

Duquesne Light Company Direct Energy Business, LLC PJM Interconnection, LLC

CAPS

GT Power Group

DC Energy Mid-Atlantic, LLC

Division of the Public Advocate of the State of

Delaware

ITC Mid-Atlantic Development LLC

Dominion Resources Suffolk Fund LLC Dominion Virginia Power Ohio Edison Company

Advanced Energy Economy, Inc.

SESCO Enterprises LLC

NextEra Energy Power Marketing, LLC Southern Maryland Electric Cooperative

American Municipal Power, Inc.

PSEG Energy Resources and Trade, LLC

CPV Maryland, LLC Macquarie Energy LLC Monitoring Analytics, LLC

PJM Interconnection, LLC

Customized Energy Solutions, Ltd.* Calpine Energy Services, L.P.

Not Applicable
Other Supplier
Electric Distributor
Other Supplier
Other Supplier

Transmission Owner Not Applicable Not Applicable Not Applicable Electric Distributor Generation Owner

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Transmission Owner
Other Supplier
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Transmission Owner

End User Customer

Other Supplier Not Applicable Other Supplier Not Applicable

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Other Supplier
Generation Owner
Electric Distributor
Electric Distributor
Other Supplier

Generation Owner
Other Supplier
Not Applicable
Not Applicable
Generation Owner
Not Applicable





Shah, Vijay Sillin, John Singh, Mohit Skucas, Ruta Snyder, Sue Sorber, Eric Souder, Dave

Stadelmeyer, Rebecca Stern, Alexander Stone, Andy Sturgeon, John Suh, Jung Sweeney, Rory Tatum, Edward Tibbetts, Maeve Tigue, John Trayers, Barry Tribulski, Jennifer Tsao, Stephanie Tyler, Catherine Vayda, Brian

Velasco, Cheryl Mae Wadsworth, Joseph Walter, Laura Warshel, Kim Wei, Jane Whitehead, Jeffrey

Wiegand-Jackson, Laurie Wilhite, Chad

Wilkie, Brian Williams, Amber Williams, Stanley Wilmoth ES, Emily Wilson, Bram Wilson, James Wood, Gordon Yang, Dan

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PJM Interconnection, LLC

The Federal Energy Regulatory Commission

Commonwealth Edison Company

Pierce Atwood

PJM Interconnection, LLC

UGI Utilities, Inc.

PJM Interconnection, LLC PJM Interconnection, LLC

Public Service Electric & Gas Company

PJM Interconnection, LLC Duke Energy Carolinas, LLC Calpine Energy Services, L.P.

RTO Insider

American Municipal Power

Pierce Atwood

New York State Electric & Gas Corporation

Citigroup Energy, Inc. PJM Interconnection, LLC

SPGlobal

Monitoring Analytics Borough of Park Ridge, NJ PJM Interconnection, LLC

Vitol Inc.

PJM Interconnection, LLC PJM Interconnection, LLC Monitoring Analytics, LLC

GT Power Group

North America Power Partners LLC

FirstEnergy Solutions Corp.

Consolidated Edison Solutions, Inc.

New York State Electric & Gas Corporation

PJM Interconnection, LLC **Dominion Virginia Power**

Diamond State Generation Partners, LLC

Wilson Energy Economics ETC Endure Energy L.L.C. Parma Energy LLC

Not Applicable Not Applicable

Transmission Owner Not Applicable

Not Applicable

Transmission Owner

Not Applicable Not Applicable

Transmission Owner

Not Applicable Other Supplier **Generation Owner** Not Applicable Electric Distributor Not Applicable

Other Supplier Other Supplier Not Applicable Not Applicable Not Applicable Electric Distributor Not Applicable

Other Supplier Not Applicable Not Applicable Not Applicable Not Applicable Other Supplier

Transmission Owner

Other Supplier Other Supplier Not Applicable Not Applicable **Generation Owner** Not Applicable Other Supplier Other Supplier

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