



Market Implementation Committee PJM Conference & Training Center, Audubon, PA September 13, 2017 9:00 a.m. – 3:30 p.m. EPT

Administration

- 1. Ms. Christina Stotesbury, PJM, provided announcements and reviewed the Antitrust, Code of Conduct, and Public Meetings/Media Participation Guidelines.
- 2. The committee approved the draft minutes from the August 9, 2017 Market Implementation Committee meeting by acclamation with 0 objections and 0 abstentions.
- 3. A. Ms. Christina Stotesbury, PJM, reviewed the active MIC issues on Issue Tracking.
 - B. Mr. Thomas Zadlo, PJM, provided a brief update on the release of Data Miner 2.
 - C. Mr. Jeff Schmitt, PJM, notified stakeholders the deadline to submit Fuel Cost Policies for Intraday Offers was September 15, 2017. All currently approved Fuel Cost Policies expire on November 1, 2017, and as part of the Annual Review Process, require updated policies to specify the resource's Intraday Offers election, and must be approved no later than November 1, 2017.

Market Sellers that plan to participate in the Offer Verification Exercise are required to have their unit cost data entered in COA by October 1, for the exercise scheduled on October 5. Registration for the Offer Verification Exercise is posted on the <u>Tech Change Forum</u>. All Market Sellers are required to have the resource cost data in COA by November 1 to be eligible for make-whole greater than \$1,000/MWh.

Endorsements/Approvals

- 4. Manual 11 Revisions for Intraday Offers
 - A. Ms. Lisa Morelli, PJM, reviewed conforming revisions to Manual 11: Energy & Ancillary Services, associated with the implementation of Intraday Offers. The committee endorsed the manual revisions with 99 in favor (72%), 38 opposed (28%), and 21 abstentions.
 - B. Ms. Lisa Morelli, PJM, presented a first read of Operating Agreement and Manual 11 revisions to amend the offer capping logic resulting from the PJM/IMM discussions at the August MIC meeting. The committee will be asked to endorse the manual revisions at the October MIC meeting.
- 5. Annual Revenue Requirements for new Black Start Units Phase 2
 Mr. Tom Hauske, PJM, reviewed the PJM & IMM proposal to address Minimum Tank Suction Levels (MTSL) as part of Phase 2 for the Annual Revenue Requirements for new Black Start units. The Committee did not endorse the proposed solution with 71 opposed (52%), 66 in favor (48%), and 26 abstentions.





6. Manual 6 Revisions for FTR Forfeiture revisions

Mr. Brian Chmielewski, PJM, reviewed Manual 6: Financial Transmission Rights revisions associated with FTR Forfeitures. The committee endorsed the Manual 6 revisions with 114 in favor (82%), 25 opposed (18%) and 35 abstentions.

7. Manual 28 Revisions for Intraday Offers

Mr. Ray Fernandez, PJM, reviewed Manual 28: Operating Agreement Accounting revisions associated with the implementation of Intraday Offers. The committee endorsed the Manual 28 revisions by acclamation with 0 objections and 0 abstentions.

First Readings

8. Revisions to Manual 11: Energy and Ancillary Services Market

- A. Mr. Rami Dirani, PJM, reviewed updated revisions to Manual 11 associated with the offer verification process for the implementation of Order 831: Energy Offer Verification. The committee will be asked to endorse the manual revisions at the October MIC meeting.
- B. Dr. Catherine Tyler, Monitoring Analytics, presented concerns related to the offer verification process.

9. Proposed Credit Requirements

Mr. Hal Loomis, PJM, presented a first read of Tariff revisions for a proposed change in credit requirements for regulation resources. The Credit Subcommittee (CS) unanimously endorsed the proposal at the August 11 CS meeting. The committee will be asked to endorse the Tariff revisions at the October meeting.

10. Winter DR Load Calculation - Problem Statement and Issue Charge

Mr. Chuck Dugan, EKPC, presented a first read of a problem statement and issue charge related to the DR CP Winter Load calculation. The committee will be asked to endorse the problem statement and issue charge at the October meeting.

11. Long Term FTR Market – Problem Statement and Issue Charge

Dr. Catherine Tyler, Monitoring Analytics, presented a first read of a problem statement and issue charge related to the Long Term FTR Market. The committee will be asked to endorse the problem statement and issue charge at the October meeting.

Working Issues

12. Market Path/Interface Pricing Point Alignment

Mr. John Dadourian, Monitoring Analytics, reviewed the Market Path/Interface Pricing Point Alignment issue approved at the August 9 MIC, provided education and reviewed a proposed solution for expedited resolution.

Additional Updates

13. Offer Cap Balancing Ratio

Mr. Adam Keech, PJM, reviewed a proposal to address an offer cap balancing ratio issue identified for the next BRA. More information will be provided at the September MRC.





14. SPS Retirements

- A. Mr. Evan Ferrell, FirstEnergy, provided an update on the Yards Creek SPS retirement.
- B. Mr. Alan Engelmann, ComEd, provided an update on the Aurora Energy Center SPS retirement.

15. Energy Efficiency in Kentucky (2:50-3:00)

Mr. Chris O'Hara, PJM, provided an update regarding Energy Efficiency in Kentucky.

16. 2017/2018 Winter Transmission Outages

Mr. Lagy Mathew, PJM, reviewed significant transmission outages for the 2017/2018 winter season.

17. Interregional Coordination Activity

Mr. Phil D'Antonio, PJM, provided an update on Interregional Coordination efforts.

Informational Section

Credit Subcommittee (CS)

Meeting materials will be posted to the <u>CS website</u>.

Demand Response Subcommittee (DRS)

Meeting materials will be posted to the <u>DRS web site</u>.

Intermittent Resources Subcommittee (IRS)

Meeting materials will be posted to the <u>IRS web site</u>.

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

October 11, 2017	9:00 a.m.	PJM Interconnection – Conference & Training Center
November 8, 2017	9:00 a.m.	PJM Interconnection – Conference & Training Center
December 13, 2017	9:00 a.m.	PJM Interconnection – Conference & Training Center
January 10, 2018	9:00 a.m.	PJM Interconnection – Conference & Training Center
February 7, 2018	9:00 a.m.	PJM Interconnection – Conference & Training Center
March 7, 2018	9:00 a.m.	PJM Interconnection – Conference & Training Center
April 4, 2018	9:00 a.m.	PJM Interconnection – Conference & Training Center
May 2, 2018	9:00 a.m.	PJM Interconnection – Conference & Training Center
June 6, 2018	9:00 a.m.	PJM Interconnection – Conference & Training Center

Meeting Attendees

Hendrzak, Chantal (Chair)	PJM Interconnection, LLC	Not Applicable
Stotesbury, Christina (Secretary)	PJM Interconnection, LLC	Not Applicable
Anders, David	PJM Interconnection, LLC	Not Applicable
Auerbach, Daniel	Direct Energy Business	Other Supplier





Benner, Scott Bresler, Stu Chmielewski, Brian Ciabattoni, Joe

Crystle, Gil Curley, Maureen Dillon, Matthew Dirani, Rami Dadourian, John Drauschak, Lisa Driscoll, Mary Ellen Dugan, Chuck

Fabiano, Janell Fernandez, Ray Fitzpatrick, Brian Fitch, Neal

Foladare, Kenneth

Ford. Adrien Foster, Denise Fuess, James Giacomoni, Anthony

Greiner, Gary Guerry, Katie Hauske, Thomas Hoatson, Tom Holland, Risa Holter, Natasha

Horstmann, John

Hsia, Eric Jardot, Gina Johnson, Carl Josyula, Siva Keech, Adam Kogut, George Lieberman, Steven Loomis, Harold Mabry, David Mathew, Lagy

Midgley, Sharon Morelli, Lisa

Perera, Asanga Pilong, Melissa Poulos, Greg

Romero-Luna, Joel

PJM Interconnection, LLC PJM Interconnection, LLC

PJM Interconnection, LLC

PJM Interconnection, LLC

UGI Development Company PJM Interconnection, LLC **UGI** Development Company

Monitoring Analytics, LLC PJM Interconnection, LLC

PJM Interconnection, LLC

PJM Interconnection, LLC East Kentucky Power Cooperative, Inc.

PJM Interconnection, LLC PJM Interconnection, LLC PJM Interconnection, LLC NRG Power Marketing LLC

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Old Dominion Electric Cooperative

PJM Interconnection, LLC PBF Power Marketing LLC PJM Interconnection, LLC

PSEG Energy Resources and Trade LLC

EnerNOC, Inc.

PJM Interconnection, LLC Riverside Generating, LLC PJM Interconnection, LLC PJM Interconnection, LLC

Dayton Power & Light Company (The)

PJM Interconnection, LLC

Essential Power Rock Springs, LLC Customized Energy Solutions, Ltd.*

Monitoring Analytics, LLC PJM Interconnection, LLC New York Power Authority American Municipal Power, Inc. PJM Interconnection, LLC McNees Wallace & Nurick LLC PJM Interconnection, LLC

Exelon Business Services Company, LLC

PJM Interconnection, LLC PJM Interconnection, LLC PJM Interconnection, LLC

CAPS

Monitoring Analytics, LLC

Not Applicable Not Applicable Not Applicable Not Applicable

Transmission Owner Not Applicable **Generation Owner** Not Applicable Not Applicable Not Applicable

Not Applicable

Transmission Owner Not Applicable Not Applicable Not Applicable Generation Owner Not Applicable

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

Transmission Owner

Not Applicable Transmission Owner

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

Transmission Owner

Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable

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Stewart, Travis Suh, Jung Sweeney, Rory Tribulski, Jennifer

Tyler, Catherine Wadsworth, Joe Whitehead, Jeffrey Williams, Stanley

Wilson, Bram Zadlo, Thomas Gable and Associates

Noble Americas Energy Solutions LLC

RTO Insider

PJM Interconnection, LLC Monitoring Analytics

Vitol Inc.

GT Power Group

PJM Interconnection, LLC

Diamond State Generation Partners, LLC

PJM Interconnection, LLC

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

Not Applicable

In Attendance via WebEx / Teleconference

Ainspan, Malcolm Atkins, Blain Aung, Thinzar Barker, Jason

Bazar, Kevin Bearden, Joel Benchek, Jim Bennett, Stephen Rolan, Martin

Bolan, Martin Bonanni, John Bowring, Joe Britt, Debbie Brodbeck, John

Brown, Rich
Bryson, Mike
Burlew, Jim
Callaghan, Chris
Campbell, Bruce
Carmean, Gregory

Carroll, Rebecca Cawley, Troy Celestine, Kizi Chen, Jennifer

Chocarro Aguirrebengoa, Iker

Cocco, Michael Cockrell, Justin Cox, Edward P. Cox, Phil Covne, Suzanne

Coyne, Suzanne Croop, Danielle Cummings, Bridgid Currier, Jeff Energy Curtailment Specialists, Inc. Duke Energy Business Services, LLC

PJM Interconnection, LLC

Exelon Business Services Company, LLC

PJM Interconnection, LLC Cargill Power Markets LLC FirstEnergy Solutions Corp. PJM Interconnection, LLC FirstEnergy Solutions Corp. NRG Power Marketing LLC Monitoring Analytics, LLC

North Carolina Electric Membership Corporation

EDP Renewables North America, LLC

PJM Interconnection, LLC PJM Interconnection, LLC PJM Interconnection, LLC PJM Interconnection, LLC EnergyConnect, Inc.

OPSI

PJM Interconnection, LLC PJM Interconnection, LLC Appalachian Power Company Natural Resources Defense Council

E.ON Climate & Renewables North America, Inc.

Con Climate & Renewables North
Old Dominion Electric Cooperative
Energy Authority, Inc. (The)
Appalachian Power Company
Appalachian Power Company
PJM Interconnection, LLC
PJM Interconnection, LLC
PJM Interconnection, LLC

Dominion Virginia Power

Other Supplier

Transmission Owner

Not Applicable

Transmission Owner

Not Applicable Other Supplier

Transmission Owner

Not Applicable

Transmission Owner Generation Owner Not Applicable

Electric Distributor
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Transmission Owner

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Electric Distributor
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Transmission Owner
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Not Applicable Not Applicable





Dantonio, Phil Dasher, Brett

Daugherty, Suzanne

Daugnerty, Suzann Davis, James Del Viscio, Mike DeLosa, Joseph Dessender, Harry Dhuri, Bhushan DiNicola, Laura Domian, Christin

Doolittle, Robin Drom, Richard Egan, Amanda Endress, Eric

Engelmann, Alan Farber, John Feierabend, Rick Ferrell, Evan

Filomena, Guy Fox, Angela

Gahimer, Mike Garnett, Bryan

Gebolys, Debbie

Genuario, Gabby Gilani, Rehan Glazer, Craig Godson, Gloria

Gorman, Kevin

Greening, Michele Halay, Alina

Hanser, Erik Harmon, Mike Hartman, Carla

Hartman, Caria Hastings, David

Hebert, Christopher

Heinle, Frederick Helms, Joseph

Hepplewhite, Peter Hohenshilt, Jennifer Holdbrook, Ruth

Horger, Tim Horning, Lynn

Horton, Dana Hudson, Wesley PJM Interconnection, LLC

Energy Authority, Inc. (The) PJM Interconnection, LLC

Dominion Energy Marketing, Inc.

PJM Interconnection, LLC DE Public Service Commission

Customized Energy Solutions, Ltd. PJM Interconnection, LLC

FirstEnergy Solutions Corp.

Mitsubishi Electric Power Products Inc.

Royal Bank of Canada Eckert Seamans

PJM Interconnection, LLC PJM Interconnection, LLC

Commonwealth Edison Company
DE Public Service Commission
Dominion Virginia Power

FirstEnergy Solutions Corp. Customized Energy Solutions, Ltd.

Wylan Energy, L.L.C.

IN Office of Utility Consumer Counselor

Duke Energy Ohio, Inc.

Public Utilities Commission of Ohio (The)

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

Exelon/Pepeco

Highlands Energy Group LLC (The)

PPL Electric Utilities Corp. dba PPL Utilities Federal Energy Regulatory Commission (The)

Michigan Public Service Commission

Union Electric Company d/b/a Ameren Missouri

Adapt2 Solutions, Inc.

D Hast Co.

Beacon Power, LLC

Office of the People's Counsel

Rainbow Energy Marketing Corporation

DC Energy East, LLC Talen Energy Marketing, LLC

Northern Virginia Electric Cooperative

PJM Interconnection, LLC

LMH Energy

Appalachian Power Company Dominion Virginia Power

Not Applicable
Other Supplier

Not Applicable

Generation Owner

Not Applicable Not Applicable

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Transmission Owner

Not Applicable Other Supplier Not Applicable Not Applicable Not Applicable

Transmission Owner

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Transmission Owner

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End User Customer Other Supplier Other Supplier Generation Owner Electric Distributor Not Applicable

Transmission Owner

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Hurwich, Mark
Hyzinski, Tom
Janicki, Diane
Jha, Monica
Johnston, Dave
Kaczanowski, Marek
Karnik, Rashmi

Kaczanowski, Mare Karnik, Rashmi Kauffman, Brian Kazerooni, Hamid Keeney, Jerry Kelly, Stephen Kilgallen, Kevin Kimmel, David Kingston, Amber Kinser, Cynthia Knies, Heather

Kormos, Mike

Labij, Christina

Langbein, Pete

Kuo, Dave

LaRocque, Matthew Leasure, Jill Lee, Lori Murphy Lejcar, Jamie Leopold, Chris Liang-Nicol, Cecilia Linda, Clarke Logan, Sharon

Lokhandwalla, Faizmin Loudenburg, Zack Lowe, Connie Ma. Alex

Mariam, Yohannes Markiewicz, Cindy Martin , Valerie Marton, David Marzewski, Skyler Matheson, Doug McLaughlin, Jeffrey

McLaverty, Megan Metzler, Jacob Miller, John Mok, Alan Norton, Chris Elliott Bay Energy Trading, LLC

GT Power Group

Boston Energy Trading & Marketing, LLC

PCI

Indiana Utility Regulatory Commission Baltimore Gas and Electric Company

Other

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

North Carolina Electric Membership Corporation

Tennessee Department of Agriculture EDF Trading North America, LLC Exelon Generation Co., LLC

DC Energy

EcoGrove Wind, LLC PJM Interconnection, LLC PJM Interconnection, LLC Keystone Projects

PJM Interconnection, LLC Allegheny Electric Cooperative Appalachian Power Company

Monongahela Power Company d/b/a Allegheny Power

Powerex Corporation

The Federal Energy Regulatory Commission

Dynegy

Pennsylvania Renewable Resources, Associates

Dominion Virginia Power

Invenergy, LLC

Office of the Peoples Counsel for the District of Columbia

FirstEnergy Solutions Corp.

The Federal Energy Regulatory Commission

FirstEnergy Solutions Corp. Monitoring Analytics, LLC

EnerNOC, Inc.

PJM Interconnection, LLC PJM Interconnection, LLC

Castleton Commodities Merchant Trading L.P.

Commonwealth Edison Company Duke Energy Kentucky, Inc. American Municipal Power, Inc. Other Supplier
Not Applicable
Generation Owner
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Transmission Owner
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End User Customer
Transmission Owner

Not Applicable
Transmission Owner
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Other Supplier
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Other Supplier
Transmission Owner
Transmission Owner

Electric Distributor





O'Connell, Robert PPGI Fund A/B Development, LLC Olaleye, Michael PJM Interconnection, LLC Ondayko, Brock Appalachain Power Company Pacella, Chris PJM Interconnection, LLC Pakela, Greg DTE Energy Trading, Inc. Patel, Keyur PJM Interconnection, LLC Patten, Kevin Appalachain Power Company Peoples, John **Duquesne Light Company** Wabash Valley Power Association, Inc. Phillips, Amanda

Phillips, Darlene
Piovesan, Lori
Powers, Sean

PJM Interconnection, LLC
Powerex Corporation
Linde Energy Services, Inc.

Pratzon, David GT Power Group

Price, Mark DC Energy Mid-Atlantic, LLC

Price, Ruth Ann Division of the Public Advocate of the State of Delaware

Prokop, Brenda ITC Mid-Atlantic Development LLC

Rajan, Abhijit Dominion Resources
Ramsey, James Suffolk Fund LLC
Rayhorn, Carolyn Dominion Virginia Power

Richardson, Frank PPL Electric Utilities Corp. dba PPL Utilities

Robson, Matt SESCO Enterprises LLC

Rohrbach, John Southern Maryland Electric Cooperative

Rothey, Kristin American Municipal Power, Inc.

Ruck, Andrew PSEG Energy Resources and Trade, LLC

Rushing, Nathan CPV Maryland, LLC Saini, Ishwar Macquarie Energy LLC

Sasser, Jonathan Customized Energy Solutions, Ltd.*
Scarpignato, David Calpine Energy Services, L.P.

Schmatz, Peter PSEG Energy Resources and Trade, LLC

Schmitt, Jeffrey PJM Interconnection, LLC
Schweizer, David PJM Interconnection, LLC
Shah, Vijay PJM Interconnection, LLC
Shanker, Roy H. Q. Energy Services (U.S.), Inc.

Sillin, John The Federal Energy Regulatory Commission

Sitarchyk, Mike PJM Interconnection, LLC

Skucas, Ruta Pierce Atwood Smaczniak, Kim Earth Justice

Snyder, SuePJM Interconnection, LLCSouder, RichPJM Interconnection, LLCSteele, BobAcorn Energy Trading, LLC

Stern, Alexander Public Service Electric & Gas Company

Stone, Andy PJM Interconnection, LLC Swigonski, Frank Advanced Energy Economy Tam, Simon PJM Interconnection, LLC

Generation Owner Not Applicable

Transmission Owner

Not Applicable
Other Supplier
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Electric Distributor
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End User Customer Not Applicable

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Tangirala, Subha Tatum, Edward Thomson, Heather Tibbetts, Maeve Tran, Stephanie Trayers, Barry Tsao, Stephanie Vayda, Brian Velasco, Cheryl Mae

Velasco, Cheryl Mae Villeneuve, Alexandre

Walter, Laura
Wang, Nick
Ward, Michael
Wei, Jane
Wicks, Tonja
Wilhite, Chad
Wilkie, Brian
Williams, Amber
Wilmoth, Emily
Wilson, James
Wilson, Sam
Wood, Gordon
Wunderlich, David
Xenopoulos, Damon

Yang, Dan Yu, Joel Zhou, Yuan ABB
American Municipal Power
Mid-Atlantic Renewable Energy

Pierce Atwood Adapt2 Solutions, Inc. Citigroup Energy, Inc.

SPGlobal

Borough of Park Ridge, NJ PJM Interconnection, LLC MAG Energy Solutions, Inc. PJM Interconnection, LLC

CCI

PJM Interconnection, LLC Monitoring Analytics, LLC Duquesne Light Company FirstEnergy Solutions Corp.

Consolidated Edison Solutions, Inc.

New York State Electric & Gas Corporation

Dominion Virginia Power Wilson Energy Economics

International Motor Press Association

ETC Endure Energy L.L.C. Royal Bank of Canada

Stone Mattheis Xenopoulos & Brew, PC

Parma Energy LLC

Rockland Electric Company

CCI

Not Applicable
Electric Distributor
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Other Supplier
Transmission Owner

Mot Applicable

Not Applicable

Author: Christina Stotesbury

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Visit <u>learn.pjm.com</u>, an easy-to-understand resource about the power industry and PJM's role.