



Market Implementation Committee PJM Conference and Training Center November 1, 2023 9:00 a.m. – 2:15 p.m. EPT

### Administration (9:00 - 9:05)

Amanda Martin, PJM, reviewed the Antitrust, Code of Conduct, Public Meetings/Media Participation and WebEx Participant Identification Requirements.

The committee approved the draft minutes from the October 4, 2023 Market Implementation Committee meeting by acclamation with 0 objections and 0 abstentions.

1. Amanda Martin provided an update on the Bilateral Capacity Transactions Problem Statement and Issue Charge being worked on at the Risk Management Committee.

### Endorsements/Approvals (9:05 – 10:15)

2. Renewable Dispatch (9:05 – 9:10)

Darrell Frogg, PJM, reviewed conforming revisions to Manual 11: Energy & Ancillary Services Market Operations for the approved Renewable Dispatch solution package.

Issue Tracking: Renewable Dispatch

The committee endorsed the revisions by acclamation with 0 objections and 0 abstentions.

3. Manual 11 Revisions (9:10 – 9:15)

Joseph Tutino, PJM, reviewed revisions to Manual 11: Energy & Ancillary Services Market Operations for offer verification technical enhancements and conforming revisions for obsolete sections for Attachment C resulting from approved Intraday Offers and Start Cost Calculation changes.

The committee endorsed the revisions by acclamation with 0 objections and 0 abstentions.

4. Manual 11 Revisions, cont. (9:15 – 9:25)

Zhenyu Fan, PJM, reviewed a problem statement, issue charge and revisions to Manual 11: Energy & Ancillary Services Market Operations to update a missing term in the Reserve section and an outdated reference in the Regulation section.

The committee approved the issue charge and endorsed the revisions as part of the Quick Fix process by acclamation with 0 objections and 0 abstentions.

5. Hybrids Phase II Manual Revisions (9:25 – 9:35)

Zhenyu Fan, PJM, reviewed conforming revisions to Manual 11: Energy & Ancillary Services Market Operations, Manual 27: Open Access Transmission Tariff Accounting and Manual 28: Operating Agreement Accounting for the Hybrids Phase II solution package.

Issue Tracking: Solar-Battery Hybrid Resources

The committee endorsed the revisions by acclamation with 0 objections and 0 abstentions.

6. Performance Assessment Interval Triggers (9:35 – 9:40)





Melissa Pilong, PJM, presented an overview of the Performance Assessment Triggers topic and will review conforming revisions to Manual 11: Energy & Ancillary Services Market Operations and Manual 18: PJM Capacity Market for FERC Docket No. ER23-1996-000.

The committee endorsed the revisions by acclamation with 0 objections and 0 abstentions.

#### 7. Manual 18 Revisions (9:40 – 9:45)

Pete Langbein, PJM, reviewed conforming revisions to Manual 18: PJM Capacity Market for the Quadrennial Review, the default Gross Cost of New Entry/Avoidable Cost Rates for the Minimum Offer Pricing Rule, Performance Assessment Intervals, Hybrids, and Interconnection Process Reform.

The committee endorsed the revisions by acclamation with 0 objections and 0 abstentions.

### 8. <u>Economic Demand Response Operating Parameters (9:45 – 10:15)</u>

Emily Orvis, Voltus, reviewed a problem statement and revised issue charge for automating bid duration for economic demand response participating in energy markets.

The committee approved the revised issue charge by acclamation with 0 objections and 0 abstentions.

### First Reads (10:15 – 10:45)

# 9. Evaluation of Energy Efficiency Resources (10:15 – 10:45)

Pete Langbein, PJM, introduced a Problem Statement and Issue Charge to evaluate Energy Efficiency Resources in the Capacity Market.

The Committee will be asked to approve the Issue Charge at its next meeting.

# Additional Items (10:45- 11:25)

#### 10. eDART to SSO Account Migration (10:45 – 11:00)

Maria Baptiste, PJM, provided a status update on the migration of eDART accounts to Single Sign On accounts in Account Manager.

# 11. Cost Development Subcommittee Update (11:00 – 11:05)

Nicole Scott, PJM, provided a Cost Development Subcommittee update.

#### 12. Minimum Operating Parameter Matrix (11:05 – 11:15)

Lauren Strella Wahba provided an overview for new technology types and associated proxy parameters added to the Minimum Operating Parameter Matrix.

#### 13. Critical Issue Fast Path (CIFP) Requirement (11:15 – 11:25)

Pete Langbein provided an update on the implementation of the new CIFP notification requirement for planned resources that would like to offer into the 25/26 Base Residual Auction (BRA). Planned resources are required to notify PJM by close of business on 12/12/23 if they will offer into the upcoming BRA.

### Working Items (11:25 – 12:15)

14. Capacity Obligations for Forecasted Large Load Adjustments Education (11:25 – 12:15)





Seth Hayik, PJM, presented education on the capacity obligations and zonal scaling factors for FRR and RPM.

#### Lunch (12:15 - 1:15)

#### Working Items (1:15 - 2:15)

15. Capacity Obligations for Forecasted Large Load Adjustments (1:15 – 2:15)

Foluso Afelumo led a discussion on interest identification, design components, and status quo within the matrix.

Issue Tracking: Capacity Obligations for Forecasted Large Load Adjustments

#### Informational Section

#### Manual 03 Updates

Updates to PJM Manual 03, Revision 65 – Transmission Operations are posted as informational only.

#### Interregional Coordination Update

Materials are posted as informational only.

## Stability Limits in Markets and Operations

Materials are posted as informational only.

#### ARR FTR Market Task Force (AFMTF)

Meeting materials are posted to the AFMTF website.

#### Cost Development Subcommittee (CDS)

Meeting materials are posted to the CDS website.

### Distributed Resources Subcommittee (DISRS)

Meeting materials are posted to the DISRS website.

## Market Settlements Subcommittee (MSS)

Meeting materials are posted to the MSS website.

### Report on Market Operations

The Report on Market Operations will be reviewed during the MC Webinar.

#### **Attendance**

In-Person			
Name	Company Name	Sector	





Afelumo, Foluso	PJM Interconnection	None	
Anders, David	PJM Interconnection	None	
Arkatin, Tyler	PJM Interconnection	None	
Barker, Jason	Vitol Inc.	Generation Owner	
Boyle, Glen	PJM Interconnection	None	
Brodbeck, John	EDP Renewables North America LLC	Generation Owner	
Bruno, Patrick	PJM Interconnection	None	
Cabezas, Angela	PJM Connect	None	
Carroll, Rebecca	PJM Interconnection	None	
Chmielewski, Brian	PJM Interconnection	None	
Ciabattoni, Joseph	PJM Interconnection	None	
Clayton, Fred	Affirmed Energy LLC	Other Supplier	
Connolly, Matthew	PJM Interconnection	None	
Croop, Danielle	PJM Interconnection	None	
Dumitriu, Nicolae	PJM Interconnection	None	
fan, zhenyu	PJM Interconnection	None	
Fishback, Luke	Affirmed Energy LLC (WMP)	Other Supplier	
Ford, Adrien	Constellation Energy Generation, LLC	Generation Owner	
Fultz, McClain	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner	
Gledhill, Andrew	PJM Interconnection	None	
Greening, Michele	PJM Interconnection	None	
Hayik, Seth	PJM Interconnection	None	
Hicks, Colleen	PJM Interconnection	None	
Hohenshilt, Jennifer	Talen Energy Marketing, LLC	Generation Owner	
Hudis, Gabriella	Jersey Green Energy LLC	Other Supplier	
Kirk, Steven	NextEra Energy Marketing, LLC	Other Supplier	
Kogut, George	New York Power Authority	Other Supplier	
Langbein, Peter	PJM Interconnection	None	
LeithYessian, Devin	RTOinsider	None	
Lu, Chenchao	PJM Interconnection	None	
Martin, Amanda	PJM Interconnection	None	
Mason, Gary	Monongahela Power Company d/b/a Allegheny Power	Transmission Owner	
OHara, Christopher	PJM Interconnection	None	
O'Hara, Christopher	PJM	None	
Pilong, Melissa	PJM Interconnection	None	
Scarp, David	Calpine Energy Services, L.P.	Generation Owner	
Stadelmeyer, Rebecca	Jersey Green Energy LLC	Other Supplier	
Stern, Alexander	Exelon Business Services Company, LLC	Transmission Owner	
Swalwell, Brad	Tangent Energy Solutions, Inc.	Other Supplier	
Sweeney, Rory	Northern Virginia Electric Cooperative (NOVEC)	Electric Distributor	
Tutino, Joseph	PJM Interconnection	None	
Webex			
Afelumo, Foluso	PJM Interconnection	None	
Anders, David	PJM Interconnection	None	
Anderson, Juliet	Constellation Energy Generation, LLC	Generation Owner	
Anderson, Jared	S&P Global	None	
Arkatin, Tyler	PJM Interconnection	None	
Baizman, Aaron	PJM Interconnection	None	
Baker, Scott	PJM Interconnection	None	
Baptiste, Maria	PJM Interconnection	None	





Barrett, Emily	PJM Interconnection	None
Bernabeu, Emanuel	PJM Interconnection	None
Bleiweis, Bruce	DC Energy, LLC	Other Supplier
Bockhorn, Tim	Dayton Power & Light Company (The)	Transmission Owner
Bowring, Joe	Monitoring Analytics	None
Boyle, Glen	PJM Interconnection	None
Breidenbaugh, Aaron	Stones DR, LLC	Other Supplier
Bresler, Stu	PJM Interconnection	None
Burkholder, Joshua	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Cabezas, Angela	PJM Connect	None
Callen, Zachary	Illinios Commerce Commission	None
Callis, Joe	PJM Interconnection	None
Calpine, Jung	Calpine Energy Services, L.P.	Generation Owner
Campbell, Bruce	Enerwise Global Technologies, LLC	Other Supplier
Canter, David	Appalachian Power Company (AEP Generation)	Transmission Owner
Carmean, Gregory	Organization of PJM States, Inc.	None
Carroll, Rebecca	PJM Interconnection	None
Chmielewski, Brian	PJM Interconnection	None
Christopher, Mahila	Public Utilities Commission of Ohio	None
Cocco, Michael	Old Dominion Electric Cooperative	Electric Distributor
Cocco, Michael	Old Dominion Electric Cooperative	Electric Distributor
Connolly, Matthew	PJM Interconnection	None
Corash, Richard	PSEG Energy Resources and Trade LLC	Other Supplier
Corder, Nick	Tyr Energy, LLC	Other Supplier
Coscia, Carl	PJM Interconnection	None
Coyne, Suzanne	PJM Interconnection	None
Croop, Danielle	PJM Interconnection	None
Curtis, Kenneth	Envenrus, Inc.	None
Daugherty-Bell, Derrik	BW Solar	None
Davis, James	Dominion Energy Generation Marketing, Inc.	Generation Owner
Davis, David	Apex Clean Energy Holdings, LLC	None
Denby, Brett	Northern Virginia Electric Cooperative (NOVEC)	Electric Distributor
Dent, D'ondre	PJM Interconnection	None
Dillon, Matthew	UGI Development Company	Generation Owner
DiMartino, Denise	PJM Interconnection	None
Ding, Congmei	PJM Interconnection	None
Ding, Yi	PJM Interconnection	None
Disciullo, Nicholas	PJM Interconnection	None
Domian, Christin	Duquesne Light Company	Transmission Owner
Donohue, Erin	Enel X North America, Inc.	Other Supplier
Dorko, Keri	Monitoring Analytics	None
Douglass, Robert	Constellation Energy Generation, LLC	Generation Owner
Drom, Rick	Affirmed Energy, LLC	Other Supplier
Dugan, Chuck	East Kentucky Power Cooperative, Inc.	Transmission Owner
Edmonds, Brian	DC Public Service Commission	End-Use Customer
Egan, Amanda	PJM Interconnection	None
EJEBE, GABRIEL	Open Access Technology International, Inc.	None
Ericson, Christine	Illinios	None
Esquivel, Manuel	Enel Trading North America, LLC	Other Supplier
Esquivel, Manuel	Enel Trading North America, LLC	Other Supplier





Esterly, Theresa	PJM Interconnection	None
fan, zhenyu	PJM Interconnection	None
Filomena, Guy	Customized Energy Solutions, Ltd.	None
Fink, Sari	MAREC Action	None
Foladare, Kenneth	Geenex Solar LLC	Other Supplier
Ford, Adrien	Constellation Energy Generation, LLC	Generation Owner
Fox, Angela	Affirmed Energy LLC	Other Supplier
Frogg, Darrell	PJM Interconnection	None
Fuess, Christian	Diamond State Generation Partners, LLC	Generation Owner
Fultz, McClain	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner
Garnett, Bryan	Duke Energy Ohio, Inc.	Transmission Owner
Gates, Terry	Appalachian Power Company (AEP Generation)	Transmission Owner
Ghosh, Abhishek	Cypress Creek Renewables, LLC	Generation Owner
Gilani, Rehan	Consolidated Edison Company of New York, Inc.	Other Supplier
Gorman, Bradley	American Transmission Systems, Inc.	Transmission Owner
Greene, Benjamin	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Greening, Michele	PJM Interconnection	None
Gronski, Gregory	Baltimore Gas & Electric Company	Transmission Owner
Guntle, Vince	American PowerNet Management, L.P.	End-Use Customer
Hanawa, Angie	Enel X North America, Inc.	Other Supplier
handlin, mike	PJM Interconnection	None
Hastings, David	PSEG Energy Solutions LLC	Other Supplier
Hauske, David	PJM Interconnection	None
Hauske, Thomas	PJM Interconnection	None
Hedayati, Mojgan	PJM Interconnection	None
Heinle, Frederick	Dynegy Marketing and Trade, LLC	Generation Owner
Hoatson, Tom	West Deptford Energy, LLC	Generation Owner
Hohenshilt, Jennifer	Talen Energy Marketing, LLC	Generation Owner
Horger, Tim	PJM Interconnection	None
Hsia, Eric	PJM Interconnection	None
Hugee, Jacqulynn	Dominion Virginia Power	Transmission Owner
Hull, Gerit	American Municipal Power, Inc.	Electric Distributor
Hurd, Shawn	Monongahela Power Company d/b/a Allegheny Power	Transmission Owner
Hyatt, Earl	Monitoring Analytics	None
Hyzinski, Tom	GT Power Group, LLC	None
Hyzinski, Tom	GT Power Group, LLC	None
Janicki, Diane	Boston Energy Trading and Marketing LLC	Other Supplier
Johnson, Carl	Customized Energy Solutions, Ltd.	None
Johnston, David	Indiana Utility Regulatory Commission	None
Jones, Scott	Indiana Office of Utility Consumer Counselor (IN OUCC)	End-Use Customer
Kelly, Stephen	Brookfield Renewable Trading and Marketing LP (BSMH)	Other Supplier
Kenney, Susan	PJM Interconnection	None
Kent, Janessa	Duquesne Light Company	Transmission Owner
Keshavamurthy, Bhavana	PJM Interconnection	None
Kilgallen, Kevin	Avangrid Renewables, LLC	Generation Owner
Kingston, Amber	Aces Power Marketing	None
Klingensmith, Laurel	American Transmission Systems, Inc.	Transmission Owner
Laios, Takis	Appalachian Power Company (AEP Transmission)	Transmission Owner
	. • • • • • • • • • • • • • • • • • • •	
Lee, Aristotle	Vicinity Energy, Inc.	None





Lejcar, Jamie	Allegheny Electric Cooperative, Inc.	Electric Distributor
Li, Kanning	PJM Interconnection	None
Mabry, David	McNees Wallace & Nurick LLC	None
Marcino, Angelo	PJM Interconnection	None
Mariam, Yohannes	Office of the People's Counsel for the District of Columbia	End-Use Customer
Martin, Amanda	PJM Interconnection	None
Marzewski, Skyler	PJM Interconnection	None
Mason, Gary	Monongahela Power Company d/b/a Allegheny Power	Transmission Owner
Matheson, Eric	Non-member	None
Matuszak, Alex	UGI Energy Services, LLC	Other Supplier
Maucher, Andrea	Delaware Division of the Public Advocate	End-Use Customer
McLaverty, Megan	PJM Interconnection	None
McNeil, Justin	Kentucky Public Service Commission	End-Use Customer
McNicholas, Daniel	Cogentrinx	None
Midgley, Sharon	Exelon Business Services Company, LLC	Transmission Owner
Miller, John	Calico Energy	None
Mooney, Jeffrey	Allegheny Power (MonPwr Gen)	Transmission Owner
Morelli, Lisa	PJM Interconnection	None
Mroz, David	PJM Interconnection	None
Nadel, Steven	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner
Newbold, Russ	Enerwise Global Technologies, LLC	Other Supplier
Olaleye, Michael	PJM Interconnection	None
Olinger, Robert	Keystone-Conemaugh Projects, LLC (Keystone)	Other Supplier
Ondayko, Brock	AEP Energy Partners, Inc. (AEP Gen Resources)	Transmission Owner
Orvis, Emily	Voltus, Inc.	Other Supplier
Osborn, Eric	EDF Trading North America, LLC	Other Supplier
Pakela, Greg	DTE Energy Trading, Inc.	Other Supplier
Patel, Anita	PJM Interconnection	None
patel, keyurbhai	PJM Interconnection	None
Patel, Harshil	PJM Interconnection	None
Peoples, John	Duquesne Light Company	Transmission Owner
Philips, Amanda	Aces Power Marketing	None
Pierpont, Dan	Riverside Generating Company, L.L.C.	Generation Owner
Pilong, Melissa	PJM Interconnection	None
Pilong, Christopher	PJM Interconnection	None
Poulous, Greg	Organization of PJM States, Inc.	None
Rasmussen, Jay	Duke Energy Business Services LLC	Transmission Owner
Ressin, Sam	Advanced Energy United	None
Richards, Wade	Apex Clean Energy Holdings, LLC	None
Rode, Advait	Michigan Public Service Commission	Electric Distributor
Rohrbach, John	Wabash Valley Power Association, Inc.	Electric Distributor
Rutledge, Craig	Appalachian Power Company (AEP Generation)	Transmission Owner
Sasser, Jonathan	Customized Energy Solutions, Ltd.	None
Scheidecker, Paul	Monitoring Analytics	None
Scheirer, Alexandra	PJM Interconnection	None
Schuyler, Ken	PJM Interconnection	None
Scott, Nicole	PJM Interconnection	None
Seelaus, Andy	Enerwise Global Technologies, LLC	Other Supplier
Selick, Sam	Customized Energy Solutions, Ltd.	None
Shah, Vijay	PJM Interconnection	None





Shanker, Roy	East Coast Power Linden Holding, L.L.C.	Generation Owner
Skucas, Ruta	PJM Committee Voting Generic Account	None
Sloan, Ben	Organization of PJM States, Inc.	None
Sotkiewicz, Paul	E-Cubed Policy Associates	None
Souder, Michelle	PJM Interconnection	None
Sprinkle, Dan	Louisville Gas and Electric Company/Kentucky Utilities Company	Transmission Owner
Stadelmeyer, Rebecca	Jersey Green Energy LLC	Other Supplier
Stefanowicz, Vincent	PJM Interconnection	None
Steichen, Renae	Bath County Energy, LLC	Generation Owner
Stinner, Doug	RWE Clean Energy, LLC	Generation Owner
Stone, Andy	Andy Stone	None
Strella Wahba, Lauren	PJM Interconnection	None
Sturgeon, John	Duke Energy Business Services LLC	Transmission Owner
Sussler, Philip	Maryland Office of the People's Council	End-Use Customer
Swalwell, Brad	Tangent Energy Solutions, Inc.	Other Supplier
Sweeney, Rory	Northern Virginia Electric Cooperative (NOVEC)	Electric Distributor
Sweeney, Rory	Northern Virginia Electric Cooperative (NOVEC)	Electric Distributor
Taylor, Daniel	PJM Interconnection	None
Tham, Jason	HashWorks Digital Industries	None
Tribulski, Jennifer	PJM Interconnection	None
Tubridy, Meg	Rockland Electric Company	Transmission Owner
Tutino, Joseph	PJM Interconnection	None
Ushijima, Hiroaki	Elwood Energy, LLC	Generation Owner
VanBlargan, Bryna	Sabinsville SunPower, LLC	None
Vanderlaan, Bill	Illinios	None
VERMEIRE, David	Exelon Business Services Company, LLC	Transmission Owner
Vinnik, Daniel	PJM Interconnection	None
Walcavich, Colin	National Grid Renewables, LLC	None
Wang, Daisy	Enel X North America, Inc.	Other Supplier
Waweru, James	PJM Interconnection	None
Wehnes, Kathleen	retired	None
Wharton, Matthew	PJM Interconnection	None
Whitehead, Jeffrey	GT Power Group	None
Wilson, James	Wilson Energy Economics	None
Wingfield, Derek	East Kentucky Power Cooperative, Inc.	Transmission Owner
Wynder, Michael	Altrock LLC	Other Supplier
Yasutake, Sarah	Jersey Green Energy LLC	Other Supplier
Zhang, Mike	PJM Interconnection	None
Zhao, Tong	PJM Interconnection	None
Zhou, Ming	DXT Commodities North America Inc.	Other Supplier

Future Meeting Dates and Materials		Materials Due	Materials	
Date	Time	Location	to Secretary	Published
December 6	9 a.m.	WebEx / Conference & Training Center	November 22	November 29
January 10	9 a.m.	WebEx / Conference & Training Center	December 28	January 3
February 7	9 a.m.	WebEx / Conference & Training Center	January 26	January 31
March 6	9 a.m.	WebEx / Conference & Training Center	February 23	February 28





April 3	9 a.m.	WebEx / Conference & Training Center	March 22	March 27
May 15	9 a.m.	WebEx / Conference & Training Center	May 3	May 8
June 5	9 a.m.	WebEx / Conference & Training Center	May 24	May 29
July 10	9 a.m.	WebEx / Conference & Training Center	June 28	July 3
August 7	9 a.m.	WebEx / Conference & Training Center	July 26	July 31
September 11	9 a.m.	WebEx / Conference & Training Center	August 30	September 4
October 9	9 a.m.	WebEx / Conference & Training Center	September 27	October 2
November 7	9 a.m.	WebEx / Conference & Training Center	October 26	October 31
December 4	9 a.m.	WebEx / Conference & Training Center	November 22	November 27

Author: Amanda Martin

#### Antitrust:

You may not discuss any topics that violate, or that might appear to violate, the antitrust laws including but not limited to agreements between or among competitors regarding prices, bid and offer practices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that might unreasonably restrain competition. If any of these items are discussed the chair will re-direct the conversation. If the conversation still persists, parties will be asked to leave the meeting or the meeting will be adjourned.

#### **Code of Conduct:**

As a mandatory condition of attendance at today's meeting, attendees agree to adhere to the Code of Conduct as detailed in PJM Manual M-34 section 4.5, including, but not limited to, participants' responsibilities and rules regarding the dissemination of meeting discussion and materials. Expectations for participating in PJM activities are further detailed in the PJM Code of Conduct.

#### Public Meetings/Media Participation:

Unless otherwise noted, PJM stakeholder meetings are open to the public and to members of the media. Members of the media are asked to announce their attendance at all PJM stakeholder meetings at the beginning of the meeting or at the point they join a meeting already in progress. Members of the Media are reminded that speakers at PJM meetings cannot be quoted without explicit permission from the speaker. PJM Members are reminded that "detailed transcriptional meeting notes" and white board notes from "brainstorming sessions" shall not be disseminated. Stakeholders are also not allowed to create audio, video or online recordings of PJM meetings. PJM may create audio, video or online recordings of stakeholder meetings for internal and training purposes, and your participation at such meetings indicates your consent to the same.

#### Participant Identification in Webex:

When logging into the Webex desktop client, please enter your real first and last name as well as a valid email address. Be sure to select the "call me" option. PJM support staff continuously monitors Webex connections during stakeholder meetings. Anonymous users or those using false usernames or emails will be dropped from the teleconference.

Provide feedback on the progress of this group: <u>Facilitator Feedback Form</u>
Visit <u>learn.pjm.com</u>, an easy-to-understand resource about the power industry and PJM's role.