



Market Implementation Committee
WebEx Only / Conference & Training Center
July 13, 2022
9:00 a.m. – 4:00 p.m. EPT

Administration

Nicholas DiSciullo reviewed the Antitrust, Code of Conduct, Public Meetings/Media Participation and the WebEx Participant Identification Requirements.

The Committee approved the draft minutes from the June 8, 2022 Market Implementation Committee with **0 objections and 0 abstentions**.

1. Zeenath Fernandes provided an update on the retirement of Weak Encryption and its impact to Markets applications.

Endorsements/Approvals

2. Variable Environmental Costs and Credits

- Melissa Pilong reviewed a proposal providing detailed guidance and updates to rules related to variable environmental charges and/or credits and their inclusion in cost-based energy offers.
- b) Joel Luna, IMM, provided education on the inclusion of Renewable Energy Certificates (RECs) and Production Tax Credits (PTCs) in cost-based offers.

The committee endorsed the proposal with 180 (82%) in favor, 39 (18%) opposed, and 5 abstentions. A second vote showed stakeholders preferred the proposal over the status quo with 178 (85%) in favor, 32 (15%) opposed, and 21 abstentions.

Issue Tracking: Variable Environmental Costs and Credits

3. Market Suspension

- a) Stefan Starkov reviewed the PJM/IMM Package addressing the treatment of long-term market suspensions.
- b) Sean Chang, Shell, provided details on a friendly amendment to the PJM/IMM Package to allow for the short-term suspension to use DA LMPs, if available, for suspensions lasting between 6 and 24 hours. The friendly amendment was accepted by PJM and the IMM, and the post-meeting version of the Matrix has been posted to the meeting materials.

The committee endorsed the Revised PJM/IMM Package by acclamation with 0 objections and 0 abstentions, including revisions to the original short-term solution endorsed by the MIC and to the longer-term proposal over the original solution endorsed by the MIC.

<u>Issue Tracking: Rules Related to Market Suspension</u>

4. Manual 6 Revisions

Emmy Messina reviewed revisions to Manual 6: Financial Transmission Rights as part of the periodic review and ARR FTR Market Task Force-based conforming changes (Docket No. ER22-797-000).





The committee endorsed the Manual 6 revisions by acclamation with 0 objections and 0 abstentions.

5. Manual 18 Revisions: Hybrid Resources

Andrew Levitt provided an update on the recent hybrids filing (Docket No. ER22-1420) and reviewed conforming revisions to Manual 18: PJM Capacity Market.

The committee endorsed the Manual 18 revisions by acclamation with 0 objections and 15 abstentions.

Issue Tracking: Solar-Battery Hybrid Resources

6. Manual 28 Revisions: Start-Up Cost Offer Development

Rebecca Stadelmeyer reviewed revisions to Manual 28: Operating Agreement Accounting to support the Startup Cost Offer Development proposal the committee approved at the April 2022 meeting.

The committee endorsed the Manual 28 revisions by acclamation with 0 objections and 0 abstentions.

Issue Tracking: Start-Up Cost Offer Development

7. DR/PRD Compliance Construct for Weather Sensitive Load

Sharon Midgley, Exelon, reviewed a Problem Statement and Issue Charge addressing the exploration of an alternative DR/PRD compliance construct for weather sensitive load. The committee approved the Issue Charge by acclamation with 22 objections and 0 abstentions.

Issue Tracking: DR/PRD Compliance Construct for Weather Sensitive Load

First Readings

8. Day-ahead Zonal Load Bus Distribution Factors

Amanda Martin provided education and a first read of a Problem Statement and Issue Charge addressing Day-ahead Zonal Load Bus Distribution Factors. The committee will be asked to approve the issue charge as part of the "CBIR Lite" process outlined in Section 8.6.2 of Manual 34 at its next meeting.

9. Reserve Price Formation Manual Revisions

- a) Damon Fereshetian reviewed the Reserve Price Formation Manual revision schedule and the plan to update Manual 11: Energy & Ancillary Services Market Operations. A first read of conforming revisions to Manuals 11, 28 and 29 will be provided at the August MIC.
- b) Ilyana Dropkin provided a first read of conforming revisions to Manual 15: Cost Development Guidelines to address the Reserve Price Formation implementation, and a first read of Biennial revisions to Manual 15.

The committee will be asked to endorse the conforming Reserve Price Formation and Biennial Manual 15 revisions at its next meeting.

Issue Tracking: Energy Price Formation





Working Items

10. Capacity Offer Opportunities for Generation with Co-Located Load

- a) Yuri Smolanitsky provided education on the impact of sudden loss of co-located load.
- b) Lisa Morelli facilitated a discussion to review solution options and initial packages for the Capacity Offer Opportunities for Generation with Co-Located Load matrix.

The committee will continue working the Consensus Based Issue Resolution (CBIR) process by reviewing packages at its next meeting. Additional packages can be provided in advance of the next meeting, and well as specific requests for education.

Issue Tracking: Capacity Offer Opportunities for Generation with Co-Located Load

11. Operating Reserve Clarification for Resources Operating as Requested by PJM

Nick DiSciullo facilitated a discussion to review design components for the Operating Reserve Clarification for Resources Operating as Requested by PJM matrix. Lisa Morelli and Joel Luna, IMM, reviewed potential solution options for the Desired MW section of the matrix. Stakeholders are encouraged to provide additional design components and solution options in advance of the next meeting. The committee will continue working the Consensus Based Issue Resolution (CBIR) process on this issue at its next meeting.

Issue Tracking: Operating Reserve Clarification for Resources Operating as Requested by PJM

12. Quadrennial Review

- a) Rebecca Carroll reviewed the Work Plan. The results of the Quadrennial Review Poll will be presented during the July 18 MIC Special Session for the Quadrennial Review.
- b) Joe Bowring, IMM, reviewed the IMMs recommendations and presented an additional VRR curve sensitivity based on a participant request.

The committee will be asked to vote on the packages in an offline format after the July 18 MIC Special Session for the Quadrennial Review. The vote will remain open until 5 pm Friday, July 22, 2022.

Issue Tracking: 2022 Quadrennial Review

Additional Items

13. ARR/FTR Market Task Force

Dave Anders discussed the results of a recent poll on potential future activities of the task force as well as a potential path forward.

14. Cost Development Subcommittee Update

Nicole Scott provided an informational update on the work to be performed at the Cost Development Subcommittee.

Informational Section

Interregional Coordination Update

Materials are posted as informational only.

Fast Start Pricing Monthly Metrics Update

Materials are posted as informational only.





PJM Manual 03 Attachment E Automatic Sectionalizing Schemes

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.

Reactive Power Compensation Task Force (RPCTF)

Meeting materials are posted to the RPCTF website.

Cost Development Subcommittee (CDS)

Meeting materials are posted to the CDS website.

Demand Response Subcommittee (DRS)

Meeting materials are posted to the <u>DRS website</u>.

DER & Inverter-based Resources Subcommittee (DIRS)

Meeting materials are posted to the **DIRS** website.

Market Settlements Subcommittee (MSS)

Meeting materials are posted to the MSS website.

OC/MIC Fuel Requirements for Black Start Resources

Meeting materials are posted to the Operating Committee website.

Report on Market Operations

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

		Future Meeting Dates and Materials	Materials Due to Secretary	Materials Published
Date	Time	Location	5 p.m.	4 p.m.
August 10	9 a.m.	WebEx / Conference & Training Center	July 29	August 3
September 7	9 a.m.	WebEx / Conference & Training Center	August 26	August 31
October 6	9 a.m.	WebEx / Conference & Training Center	September 26	September 29
November 2	9 a.m.	WebEx / Conference & Training Center	October 21	October 26
December 7	9 a.m.	WebEx / Conference & Training Center	November 23	November 30

Author: Nicholas DiSciullo





In-Person Meeting Attendees

Names Morelli, Lisa (Chair)

DiSciullo, Nicholas (Secretary)

Anders, David Barker, Jason Benchek, Jim Carroll, Becky

Chmielewski, Brian Egan, Amanda Fereshetian, Damon

Filomena. Guv Ford, Adrien

Greening, Michele Hauske, David Heidorn, Richard

Hsia, Eric Kogut, George Martin, Amanda McElwee. Steve

Messina, Emmy Midgley, Sharon

Pilong, Melissa Poulos, Greg

Scarpignato, David (Scarp) Stadelmeyer, Rebecca Starkov, Stefan

Terranova, Chris

Company Name

PJM Interconnection, LLC PJM Interconnection, LLC

PJM Interconnection, LLC

Constellation Energy Generation, LLC American Transmission Systems, Inc.

PJM Interconnection, LLC PJM Interconnection, LLC PJM Interconnection, LLC PJM Interconnection, LLC Customized Energy Solutions, Ltd.*

Old Dominion Electric Cooperative

PJM Interconnection, LLC

PJM Interconnection, LLC **RTO Insider**

PJM Interconnection, LLC New York Power Authority PJM Interconnection, LLC PJM Interconnection, LLC PJM Interconnection, LLC

Exelon Business Services Company, LLC

PJM Interconnection, LLC

CAPS

Calpine Energy Services, L.P.

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

Not Applicable Not Applicable

None

Generation Owner Transmission Owner

None None None None None

Electric Distributor

None None None None None None None None

Transmission Owner

None None

Generation Owner

None None None

WebEx Meeting Attendees

Names

Abdur-Rahman, Muhsin

Ahuja, Manan Baim, Matthew Bastian, Jeff

Bates Wannop, Allison

Beban, Madalyn Bleiweis. Bruce

Bloom, David Borgatti, Michael

Bowring, Joe Boyle, Glen

Breidenbaugh, Aaron

Callaghan, Chris Canter, David

Cao, Roger Carmean, Gregory Carroll, Rebecca

Caven, Augustine Chang, Sean

Company Name

ABB Enterprise Software Inc.

S&P Global Inc.

PJM Interconnection, LLC PJM Interconnection, LLC

Voltus. Inc.

PJM Interconnection, LLC

DC Energy LLC

Baltimore Gas and Electric Company

Gabel and Associates Monitoring Analytics, LLC PJM Interconnection, LLC

Rodan Energy Solutions (USA) Inc.

PJM Interconnection, LLC

AEP Appalachian Transmission Company, Inc.

PJM Interconnection, LLC

OPSI

PJM Interconnection, LLC PJM Interconnection, LLC

Shell Energy North America (US), L.P.

Sector

None None None

None Other Supplier

None

Other Supplier

Transmission Owner None

None None Other Supplier

None

Transmission Owner

None None None None

Other Supplier





Chee, Yee Hong Chen, Hong Christopher, Mahila Chu, George Ciabattoni, Joseph Cocco, Michael Corash, Richard (Rich)

Cox, Jason Coyne, Suzanne Croop, Danielle D'Antonio, Phil Davirova, Nigora Dent, D'ondre Dillon, Matthew Domian, Christin Downs, Jere Drom, Richard (Rick)

Dropkin, Ilyana Duensing, Allison Dugan, Chuck Dumitriu, Nicolae Elkins, Rachel Ericson, Christine Esquivel, Manuel Fabiano, Janell Fan. Zhenvu Fernandes, Zeenath Fernandez, Ray Fink, Regan

FirstEnergy Corporation, Transmission

Owner

Fitzpatrick, Brian Flamm, Sean

Foladare, Kenneth (Ken) Frogg, Darrell

Fuess, Christian Gates, Jill Gates, Terry Gilani, Rehan Gordon, Brad Greiner, Gary

Guntle, Vince Hastings, David Hatch, Kevin Heisey, Bradley Helm, Gary Helms, Joseph Hepplewhite, Peter Herel, Suzanne

Hicks, Colleen

Hoatson, Thomas (Tom)

MCG Energy Solutions PJM Interconnection, LLC

Public Utilities Commission of Ohio (The)

PJM Interconnection, LLC PJM Interconnection, LLC

Old Dominion Electric Cooperative PSEG Energy Resources & Trade LLC Dynegy Power Marketing, Inc.

PJM Interconnection, LLC **UGI** Development Company

Duquesne Light Company PJM Interconnection, LLC **Eckert Seamans**

PJM Interconnection, LLC Saracen Energy East LP

East Kentucky Power Cooperative, Inc.

PJM Interconnection, LLC FirstEnergy Corporation Illinois Commerce Commission Enel Trading North America, LLC

PJM Interconnection, LLC

PJM Interconnection, LLC PJM Interconnection, LLC PJM Interconnection, LLC Pine Gate Mid-Atlantic, LLC

EDP Renewables North America, LLC

PJM Interconnection, LLC PJM Interconnection, LLC Geenex Solar LLC PJM Interconnection, LLC PBF Power Marketing, LLC

PJM Interconnection, LLC AEP Appalachian Transmission Company, Inc. ConEdison Energy, Inc.

PJM Interconnection, LLC PSEG Energy Resources & Trade LLC American PowerNet Management

Market Interconnection Consulting Services (MICS) PJM Interconnection, LLC Wolf Hills Energy, LLC

PJM Interconnection, LLC

Rainbow Energy Marketing Corporation

Wrigley Capital LLC PJM Interconnection, LLC PJM Interconnection, LLC

Riverside Generating, LLC

None None None None

> None Electric Distributor Other Supplier

Generation Owner None None None None

None

Generation Owner Transmission Owner

None None None

Other Supplier Transmission Owner

None

None

Transmission Owner

Other Supplier None None None None

Other Supplier

Generation Owner

None None

Other Supplier

None

Generation Owner

None

Transmission Owner Other Supplier

None

Other Supplier **End-Use Customer**

None None

Generation Owner

None

Other Supplier Other Supplier

None None

Generation Owner





Hohenshilt, Jennifer
Holter, Natasha
Horning, Lynn Marie
Horstmann, John
Hough, Dennis
Hudis, Gabriella
Hull, Gerit
Hurwich, Mark
Hyzinski, Tom
Janicki, Diane
Jardot, Gina
Jerdi, PJ

Jett, William (Bill)
Johnson, Carl
Johnston, David
Jones, Scott
Kazerooni, Hamid
Kenney, Susan
Kent, Janessa
Kilgallen, Kevin
Kimmel, David
Kuhn, Tyler
Lai, Erin
Laios, Takis
Langbein, Pete
Lejcar, Jamie
Levitt, Andrew

Libbos, Robin

Loftus, Chad

Luna, Joel

Lieberman, Steven

Mabry, David
Marcino, Angelo
Mariam, Yohannes
Matuszak, Alex
McDewell, Christian
McGlynn, Paul
McLaverty, Megan
McNeil, Justin
Midgley, Sharon
Miller, John
Monroe, Diane

Mooney, Jeff Moretti, Andrea Moye, Bob Nirmalya, Chanda Okenfuss, James Olaleye, Michael

Ondayko, Brock Opitz, Mandi

Pakela, Gregory (Greg)

Talen Energy Marketing, LLC
PJM Interconnection, LLC
Customized Energy Solutions, Ltd.*
Dayton Power & Light Company (The)

PJM Interconnection, LLC Jersey Green Energy LLC American Municipal Power, Inc. Elliott Bay Energy Trading, LLC GT Power Group

Boston Energy Trading & Marketing, LLC Essential Power Rock Springs, LLC

BioUrja Power, LLC

Duke Energy Business Services LLC Customized Energy Solutions, Ltd.* Indiana Utility Regulatory Commission Indiana Office of Utility Consumer Counsel

PJM Interconnection, LLC PJM Interconnection, LLC Duquesne Light Company Avangrid Renewables LLC PJM Interconnection, LLC

DC Energy LLC

PJM Interconnection, LLC

AEP Appalachian Transmission Company, Inc.

PJM Interconnection, LLC

Allegheny Electric Cooperative, Inc.

PJM Interconnection, LLC
FirstEnergy Corporation
American Municipal Power, Inc.
PJM Interconnection, LLC
Monitoring Analytics, LLC
McNees Wallace & Nurick LLC
PJM Interconnection, LLC

Office of the Peoples Counsel for the District of Columbia

UGI Energy Services, LLC Commonwealth of PA PJM Interconnection, LLC PJM Interconnection, LLC

Office of the Attorney General, Kentucky
Exelon Business Services Company, LLC
Commonwealth Edison Company
PJM Interconnection, LLC
FirstEnergy Corporation
PJM Interconnection, LLC

Rainbow Energy Marketing Corporation

BioUrja Power, LLC Savion, LLC

PJM Interconnection, LLC

AEP Appalachian Transmission Company, Inc.

Interstate Gas Supply, Inc. DTE Energy Trading, Inc.

Generation Owner

None None

Transmission Owner

None

Other Supplier
Electric Distributor
Other Supplier

None

Other Supplier Generation Owner Other Supplier Transmission Owner

None None

End-Use Customer

None None

Transmission Owner Generation Owner

None

Other Supplier

None

Transmission Owner

None

Electric Distributor

None

Transmission Owner Electric Distributor

None None None

End-Use Customer Other Supplier

None None None

End-Use Customer Transmission Owner Transmission Owner

None

Transmission Owner

None

Other Supplier
Other Supplier

None None

Transmission Owner
Other Supplier
Other Supplier





None

None

Patel, Keyurbhai (Keyur)	PJM Interconnection, LLC	None
Pelletier, Eveline	Hydro-Quebec	None

Peoples, JohnDuquesne Light CompanyTransmission OwnerPicarelli, DavidPJM Interconnection, LLCNonePilong, ChristopherPJM Interconnection, LLCNonePilong, MelissaPJM Interconnection, LLCNone

Pratt, Nicholas (Nick)PPL Electric Utilities Corp. dba PPL UtilitiesTransmission OwnerProcuniar, JasonBuckeye Power, Inc.Electric DistributorRaghavan, VijayBioUrga Trading LLCOther Supplier

Raghavan, Vijay BioUrga Trading LLC
Rahimi, Farrokh OATI Energy Trading
Roberts, Casey Sierra Club

Robinson, Becky

Vista Energy Marketing, L.P.

Other Supplier

Rohrbach, John

Southern Maryland Electric Cooperative, Inc.

Electric Distributor

Ruck, Andrew

Freepoint Commodities LLC

Other Supplier

Transmission Company, Inc.

Transmission Owner

Transmission O

Rutledge, Craig AEP Appalachian Transmission Company, Inc. Transmission Owner Sasser, Jonathan Customized Energy Solutions, Ltd.* None

Schroeder, Connie Virginia Electric & Power Company Transmission Owner Schwarz, Stephanie PJM Interconnection, LLC None Scott, Nicole PJM Interconnection, LLC None

Scott, Nicole

Servera, Max

Unicia Energy LP

Shah, Vijay

PJM Interconnection, LLC

None

Shanker, Roy

H.Q. Energy Services (U.S.), Inc.

Other Supplier

Other Supplier

Sloan, Ben Organization of PJM States, Inc. (OPSI) None Smolanitsky, Yuri PJM Interconnection, LLC None

Sorrels, James AEP Appalachian Transmission Company, Inc. Transmission Owner Stern, Alexander (Alex) Public Service Electric & Gas Company Transmission Owner

 Stone, Andy
 PJM Interconnection, LLC
 None

 Stuchell, Jeff
 FirstEnergy Corporation
 Transmission Owner

 Sturgeon, John
 Duke Energy Carolinas, LLC
 Other Supplier

Sussler, Philip State of Maryland None
Svenson, Heather Public Service Electric & Gas Company Transmission Owner

Swalwell, Brad Tangent Energy Solutions, Inc. Other Supplier
Sweeney, Rory GT Power Group None

Tacka. Natalie PJM Interconnection, LLC None Thomas, Jack PJM Interconnection, LLC None Tibbetts, Maeve K & L Gates None Tribulski, Jennifer (Jen) PJM Interconnection, LLC None Tyler, Catherine Monitoring Analytics, LLC None Walcavich, Colin National Grid Renewables, LLC None

Ward, MichaelPJM Interconnection, LLCNoneWarshel, KimPJM Interconnection, LLCNoneWeathers, BrianPJM Interconnection, LLCNoneWehnes, KathleenMaryland Public Service CommissionNoneWhitehead, Jeffrey (Jeff)GT Power GroupNone

Williams, Fernie East Kentucky Power Cooperative, Inc. Transmission Owner

Wilson, James Wilson Energy Economics None
Wray, Gizelle Solar Energy Industries Association None
Yovanovich, Laura PJM Interconnection, LLC None
Zhang, Michael (Mike) PJM Interconnection, LLC None
Zhao, Tong PJM Interconnection, LLC None





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.

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As a mandatory condition of attendance at today's meeting, attendees agree to adhere to the PJM 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.

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- Dialing *1 enters you into the question queue; the three dial tones are an auditory indication that you have successfully been placed in the queue.
- Questions are taken during the meeting when natural breaks occur and are asked in the order they are received.

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