



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.

Issue Tracking: Rules Related to Market Suspension

#### 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 DRS website.

### **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<br>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



Names

## **Meeting Minutes**



#### **In-Person Meeting Attendees**

| Humbo    |      |         |  |
|----------|------|---------|--|
| Morelli, | Lisa | (Chair) |  |

Nicholae (Secretary)

DiSciullo, Nicholas (Secretary) Anders, David

Barker, Jason Benchek, Jim Carroll, Becky Chmielewski, Brian Egan, Amanda

Fereshetian, Damon Filomena, Guy Ford, Adrien Greening, Michele Hauske, David Heidorn, Richard

Hsia, Eric Kogut, George Martin, Amanda McElwee, Steve Messina, Emmy

Midgley, Sharon Pilong, Melissa Poulos, Greg

Terranova, Chris

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

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

PJM Interconnection, LLC

OPSI

PJM Interconnection, LLC PJM Interconnection, LLC

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

AEP Appalachian Transmission Company, Inc.

#### Sector

None None None

> None Other Supplier

None None

Other Supplier

Transmission Owner

None None None

Other Supplier

None

Transmission Owner

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 Geenex Solar LLC PJM Interconnection, LLC PBF Power Marketing, LLC PJM Interconnection, 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 Leicar, Jamie Levitt, Andrew Libbos, Robin

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

Lieberman, Steven

Loftus, Chad

Luna, Joel

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

PJM Interconnection, LLC

DC Energy 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



Sasser, Jonathan

## **Meeting Minutes**



None

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
Rahimasa Paskus Sierra Club

Robinson, BeckyVista Energy Marketing, L.P.Other SupplierRohrbach, JohnSouthern Maryland Electric Cooperative, Inc.Electric DistributorRuck, AndrewFreepoint Commodities LLCOther SupplierRutledge, CraigAEP Appalachian Transmission Company, Inc.Transmission Owner

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

Customized Energy Solutions, Ltd.\*

 Scott, Nicole
 PJM Interconnection, LLC
 None

 Servera, Max
 Unicia Energy LP
 Other Supplier

 Shah, Vijay
 PJM Interconnection, LLC
 None

 Shanker, Roy
 H.Q. Energy Services (U.S.), Inc.
 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, AndyPJM Interconnection, LLCNoneStuchell, JeffFirstEnergy CorporationTransmission OwnerSturgeon, JohnDuke Energy Carolinas, LLCOther SupplierSussler, PhilipState of MarylandNone

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, Michael PJM Interconnection. LLC None Warshel, Kim PJM Interconnection, LLC None Weathers, Brian PJM Interconnection, LLC None

Weathers, Brian PJM Interconnection, LLC None
Wehnes, Kathleen Maryland Public Service Commission None
Whitehead, Jeffrey (Jeff) GT Power Group None

Williams, FernieEast Kentucky Power Cooperative, Inc.Transmission OwnerWilson, JamesWilson Energy EconomicsNoneWray, GizelleSolar Energy Industries AssociationNone

Yovanovich, LauraPJM Interconnection, LLCNoneZhang, Michael (Mike)PJM Interconnection, LLCNoneZhao, TongPJM Interconnection, LLCNone





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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 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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- 3. Call in to the operator-assisted number

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