

Operating Committee PJM Conference & Training Center, Audubon, PA September 8, 2022 9:00 a.m. – 2:00 p.m. EDT

*Operator assisted phone lines will be opened 30 minutes prior to the start of the meeting. Due to the high volume of remote participation, stakeholders are asked to connect early to allow additional time for operator queue processing.

Administration

1. Jeff McLaughlin, PJM, provided announcements; reviewed the Antitrust, Code of Conduct, Public Meetings/Media Participation, and the WebEx Participant Identification Requirement.

a. Reviewed and approved draft minutes from the August 11 OC meeting. The Committee approved the draft minutes from the August 11, 2022 Operating Committee meeting with 0 objections and 0 abstentions.

- b. Reviewed the OC work plan.
- c. Michele Greening, PJM, provided an update on the upcoming PJM Annual Meeting.

Review of Operations

- <u>Review of Operating Metrics</u> Stephanie Schwarz, PJM, reviewed the August 2022 PJM operating metrics slides. Metrics included PJM's load forecast error, BAAL performance, and transmission / generation outage statistics.
- 3. <u>Security Update</u> Steve McElwee, PJM, provided a security briefing.

Endorsements/Approvals

- Max Emergency Changes for Resource Limitation Reporting A review of solution packages was performed for the Max Emergency Changes for Resource Limitation Reporting issue as part of the Consensus Based Issue Resolution (CBIR) Lite process.
 - a. Chris Pilong, PJM, reviewed Package A.
 - Joel Luna, Monitoring Analytics, reviewed Package B.
 <u>Issue Tracking: Max Emergency Changes for Resource Limitation Reporting</u>

The committee endorsed Package A with 209 (92%) in favor, 18 (8%) opposed, and 4 abstentions. A second vote showed stakeholders preferred Package A over status quo with 186 (82%) in favor, 40 (18%) opposed, and 5 abstentions.

The committee did not endorse Package B with 19 (9%) in favor, 194 (91%) opposed, and 18 abstentions. A second vote showed stakeholders did not prefer Package B over status quo with 19 (9%) in favor, 194 (91%) opposed, and 18 abstentions

Package A moves to the Market and Reliability Committee (MRC) as the primary motion.

5. Internal NITS Process

.**⊅**∕pjm

Susan McGill, PJM, reviewed the proposed solution package for the Internal Network Integration Transmission Service (NITS) Process issue as part of the CBIR Lite process.

The Operating Committee endorsed the proposed solution with 0 objections and 0 abstentions.

6. <u>Renewable Dispatch</u>

Mike Zhang, PJM, and Joel Luna, Monitoring Analytics, reviewed the joint solution package for the Renewable Dispatch issue as part of the CBIR process. Issue Tracking: Renewable Dispatch

The vote to endorse the proposed solution package was deferred to allow for further discussion at the next meeting of the DIRS on September 23. The committee's intention is to vote on the solution package as the October Operating Committee meeting, depending on the progress of those discussions.

7. Fuel Requirements for Black Start Resources

A review of solution packages was performed for the Fuel Requirements and Black Start Resources issue as part of the CBIR process.

- a. Janell Fabiano, PJM, provided a brief background on the issue and a review of the unique voting procedure.
- b. Dan Bennett, PJM, reviewed Package H (PJM / Brookfield / DCOPC).
- Joe Bowring, Monitoring Analytics, reviewed Package B (IMM).
 <u>Issue Tracking: Fuel Requirements for Black Start Resources</u>
 The Operating Committee was asked to endorse the proposed solutions after the meeting via an offline vote in the PJM Voting Application.
- 8. Manual 14D and Manual 13 Revisions

Ray Lee, PJM, performed a review of changes to Manual 14D: Generator Operational Requirements and Manual 13: Emergency Operation. The changes are associated with NERC standards EOP-011 – Emergency Preparedness and Operations, IRO-010 – Reliability Coordinator Data Specification and Collection, and TOP-003 – Operational Reliability Data.

The Operating Committee endorsed the changes to Manual 14D and Manual 13 with 0 objections and 0 abstentions.

9. Manual 10, Manual 12 and Manual 13 Revisions

David Kimmel, PJM, performed a review of changes associated with Reserve Price Formation impacting Manual 10: Pre-Scheduling Operations, Manual 12: Balancing Operations and Manual 13: Emergency Operations.



The Operating Committee endorsed the changes to Manual 10, Manual 12 and Manual 13 with 0 objections and 0 abstentions.

 Manual 39: Nuclear Plant Interface Coordination Darrell Frogg, PJM, reviewed Manual 39 changes as a part of the periodic review. The Operating Committee endorsed the changes to Manual 39 with 0 objections and 0 abstentions.

First Reading

11. <u>Manual 3A: Energy Management System Model Updates & Quality Assurance</u> Eliseo Carrasco, PJM, reviewed Manual 3A changes as a part of the periodic review. **The Operating Committee will be asked to endorse these changes at its next meeting.**

Additional Items

- 12. <u>2023 Capital Project Budget</u> Jim Snow, PJM, will review PJM's 2023 capital project budget.
- 13. <u>PPL Dynamic Line Rating Implementation Update</u> Dave Hislop, PJM, provided an update on the implementation of the PPL Dynamic Line Rating.
- 14. <u>System Resilience</u> Chris Pilong, PJM, provided an update on system resilience.

Working Items

15. IROL-CIP Cost Recovery

A review of the solution package for the IROL-CIP Cost Recovery issue was performed as part of the CBIR process.

- a. Darrell Frogg, PJM, reviewed Package A.
- b. Joe Bowring, IMM, provided comments. Issue Tracking: IROL-CIP Cost Recovery

Informational Only Postings

- <u>2023 Capital Project Budget</u> Jim Snow, PJM, reviewed PJM's 2023 capital project budget.
- 16. Reliability Compliance Update

Becky Davis, PJM, provided an update on NERC, SERC, RF, and NAESB standards, and other pertinent regulatory and compliance information, and solicit feedback from the members on Reliability Compliance efforts.



- 17. <u>Regulation Performance Update</u> Ilyana Dropkin, PJM, provided an update on PJM regulation market performance.
- 18. <u>Primary Frequency Response Update</u> Ross Kelly, PJM, provided an update on PJM primary frequency response performance.
- 19. <u>Synchronous Reserve Update</u> Dave Kimmel, PJM, provided a review of recent synchronous reserve performance.
- 20. <u>Synchrophasor Update</u> Chris Callaghan, PJM, reviewed recent activities around PMUs at PJM.
- 21. <u>System Operations Subcommittee (SOS)</u> Donnie Bielak, PJM, provided a summary of the most recent SOS meeting.
- 22. <u>NERC Lessons Learned</u> Kevin Hatch, PJM, reviewed the latest posted NERC Lessons Learned reports.
- 23. <u>Dynamic Line Rating Task Force (DLRTF) Update</u> The first meeting of the DLRTF will be on September 30. The Task Force is assigned to the OC, but will also cover topics related to the PC and MIC. Information will be posted to the <u>DLRTF</u> page.
- 24. <u>2022 Annual Meeting Part 2</u> Michele Greening, PJM, provided an update on the upcoming PJM Annual Meeting.

Attendance

Last Name	First Name	Company	Sector
McGlynn (Chair)	Paul	PJM Interconnection	None
McLaughlin (Secretary)	Jeffrey	PJM Interconnection	None
Advena	Chris	PJM Interconnection	None
Aguilar	Fabiano	Storm Power, LLC	Other Supplier
Anastasio	Elizabeth	PJM Interconnection	None
Anders	David	PJM Interconnection	None
baizman	aaron	PJM Interconnection	None
Baker	Jeff	Duke Energy Ohio, Inc.	Transmission Owner
Barker	Jason	Constellation Energy Generation, LLC	Generation Owner



Barmer	Mike	Dominion Virginia Power	
Beban	Madalyn	PJM Interconnection	None
Benchek	Jim	American Transmission Systems, Inc.	Transmission Owner
Bennett	Daniel	PJM Interconnection	None
Berton	Tyler	Appalachian Transmission Company, Inc.	Transmission Owner
Bleiweis	Bruce	DC Energy LLC	Other Supplier
Bloodworth	Michelle	America's Power	
Bowring	Joe	Monitoring Analytics, LLC	None
Boyle	Sean	Constellation Energy Generation, LLC	Generation Owner
Boyle	Glen	PJM Interconnection	None
Brady	George	Ohio Valley Electric Corp	Transmission Owner
Braerman	Kenneth	Baltimore Gas and Electric Company	Transmission Owner
Brodbeck	John	EDP Renewables North America, LLC	Generation Owner
Brooks	Michael	RTO Insider	None
Brown	Richard	PJM Interconnection	None
Callis	Joe	PJM Interconnection	None
Canchi	Devendra	Monitoring Analytics, LLC	None
Carmean	Gregory	OPSI	None
Carrasco	Eliseo	PJM Interconnection	None
Cerchio	Jerry	Monitoring Analytics, LLC	None
Chang	Sean	Shell Energy North America (US), L.P.	Other Supplier
Chen	Hong	PJM Interconnection	None
Chmielewski	Brian	PJM Interconnection	None
Christopher	Mahila	Public Utilities Commission of Ohio	None
Chu	George	PJM Interconnection	None
ciabattoni	joe	PJM Interconnection	None
CIRCELLI	ROSEANNE	Public Service Electric & Gas Company	Transmission Owner
Corash	Rich	PSEG Energy Resources & Trade LLC	Other Supplier
Coyne	Suzanne	PJM Interconnection	None
Croop	Danielle	PJM Interconnection	None
dadourian	john	Monitoring Analytics	None



Dajewski	Paul	PJM Interconnection	None
Daugherty	Danielle	ReliabilityFirst	None
Dave	Kushal	Denver Energy, LLC	Other Supplier
Davis	Elizabeth	PJM Interconnection	None
Davis	Jim	Dominion Energy Generation Marketing, Inc.	Generation Owner
de la Mora	Luis	Strom Power, LLC	Other Supplier
Derin	Bilge	PJM Interconnection	None
Domian	Christin	Duquesne Light Company	Transmission Owner
Downs	Jere	PJM Interconnection	None
Dropkin	Robert	PJM Interconnection	None
Dugan	Chuck	East Kentucky Power Cooperative, Inc.	Transmission Owner
Dumitriu	Nick	PJM Interconnection	None
Egan	Amanda	PJM Interconnection	None
Elkins	Rachel	FirstEnergy Corporation	Transmission Owner
Ericson	Christine	Illinois Commerce Commission	None
Fabiano	Janell	PJM Interconnection	None
Fan	Zhenyu	PJM Interconnection	None
Fazio	Danielle	Noble Americas Gas & Power Corp.	Other Supplier
Fereshetian	Damon	PJM Interconnection	None
Filomena	Guy	Customized Energy Solutions, Ltd.	None
Fink	Regan	Pine Gate Mid-Atlantic, LLC	Other Supplier
Fitzpatrick	Brian	PJM Interconnection	None
Foladare	Kenneth	Geenex Solar LLC	Generation Owner
Ford	Adrien	Old Dominion Electric Cooperative	Electric Distributor
Foster Cronin	Denise	East Kentucky Power Cooperative, Inc.	Transmission Owner
franks	christine	PJM Interconnection	None
Frogg	Darrell	PJM Interconnection	None
Fuess	Christian	PBF Power Marketing, LLC	Generation Owner
Gagen	Roderick	Dominion Virginia Power	None
Garnett	Bryan	Duke Energy Ohio, Inc.	Transmission Owner
Gebele	Don	Dayton Power & Light Company (The)	Transmission Owner



Gilani	Rehan	ConEdison Energy, Inc.	Other Supplier	
Gluck	Jim	PJM Interconnection	None	
Greening	Michele	PJM Interconnection	None	
Greiner	Gary	American PowerNet Management	End-Use Customer	
Guignet	Doug	PJM Interconnection	None	
Guntle	Vince	American PowerNet Management	End-Use Customer	
Hastings	David	Market Interconnection Consulting Services (MICS)	None	
Hauske	David	PJM Interconnection	None	
Hauske	Tom	PJM Interconnection	None	
Heinle	Erik	Office of the Peoples Counsel for the District of Columbia	End-Use Customer	
Hepplewhite	Peter	Wrigley Capital LLC	Other Supplier	
Herrera	Maria	PJM Interconnection	None	
Hislop	David	PJM Interconnection	None	
Hoatson	Thomas	Riverside Generating, LLC	Generation Owner	
Hohenshilt	Jennifer	Talen Energy Marketing, LLC	Generation Owner	
Horning	Lynn	Customized Energy Solutions, Ltd.	None	
Hsia	Eric	PJM Interconnection	None	
Hull	Gerit	American Municipal Power, Inc.	Electric Distributor	
Hurwich	Mark	Elliott Bay Energy Trading, LLC	Other Supplier	
Hyatt	Earl	Monitoring Analytics	None	
Hyzinski	Tom	GT Power Group, LLC	None	
Idzior	John	ReliabilityFirst	None	
ller	Art	Indiana Office of Utility Consumer Counsel	End-Use Customer	
James	Solon	DC Energy, LLC	Other Supplier	
Janicki	Diane	Boston Energy Trading & Marketing, LLC	Other Supplier	
Jardot	Gina	NRG Power Marketing, LLC	Generation Owner	
Jarrah	Danny	PPL Electric Utilities Corp. dba PPL Utilities	Transmission Owner	
Jett	Bill	Duke Energy Business Services LLC	Transmission Owner	
Johnson	Carl	Customized Energy Solutions, Ltd.	None	
Johnston	Dave	Indiana Utility Regulatory Commission	None	
Jones	Scott	Indiana Office of Utility Consumer Counsel	End-Use Customer	
Jones	Ryan	Allegheny Electric Cooperative, Inc.	Electric Distributor	



Kazerooni	Hamid	PJM Interconnection	None
Keenan	Matthew	Jpower USA	None
Kelly	Ross	PJM Interconnection	None
Kelly	Stephen	Brookfield Energy Marketing LP	Other Supplier
Kent	Janessa	Duquesne Light Company	Transmission Owner
Kogut	George	New York Power Authority	Other Supplier
Lai	Erin	PJM Interconnection	None
Laios	Takis	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Lake	David	FirstEnergy Corporation	Transmission Owner
LaRocque	Matt	PJM Interconnection	None
Leasure	JIII	Keystone Projects	None
Lee	Ray	PJM Interconnection	None
Leith Yessian	Devin	RTO Insider	None
Leon	Miguel	PJM Interconnection	None
Liang-Nicol	Cecilia	Monongahela Power Company d/b/a Allegheny Power	Transmission Owner
libbos	robin	FirstEnergy Corporation	Transmission Owner
Lynn	Brian	PJM Interconnection	None
Mabry	David	McNees Wallace & Nurick LLC	None
Mason	Gary	FirstEnergy Corporation	Transmission Owner
Matheson	Eric	Pennsylvania Public Utility Commission	None
Mathew	Lagy	PJM Interconnection	None
Matticola	Michele	PJM Interconnection	None
McElwee	Steve	PJM Interconnection	None
McLaverty	Megan	PJM Interconnection	None
McNicholas	Daniel		
Midgley	Sharon	Exelon Business Services Company, LC	Transmission Owner
Muhl	Nancy	PJM Interconnection	None
Mulhern	Joseph	PJM Interconnection	None
Okenfuss	James	Savion, LLC	None
Olaleye	Michael	PJM Interconnection	None



Ondayko	Brock	Appalachian Transmission Company, Inc. Transmission	
Pakela	Gregory	DTE Energy Trading, Inc.	Other Supplier
patel	Anita	PJM Interconnection	None
Patel	Shodhan	Constellation Energy Generation, LLC	Generation Owner
Phillips	Darlene	PJM Interconnection	None
Pilong	Melissa	PJM Interconnection	None
Pilong	Christopher	PJM Interconnection	None
Pincus	Steve	PJM Interconnection	None
Price	Mark	DC Energy Mid-Atlantic, LLC	None
Procuniar	Jason	Buckeye Power, Inc.	Electric Distributor
Poulos	Gregory	CAPS	None
Ramsay	Eli		
Robinson	Becky	Vista Energy Marketing, L.P.	Other Supplier
Rohrbach	John	Southern Maryland Electric Cooperative, Inc.	Electric Distributor
Romero Luna	Joel	Monitoring Analytics	None
Rutledge	Craig	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Sasser	Jonathan	Customized Energy Solutions, Ltd.	None
Scarpignato	David	Calpine Energy Services, L.P.	Generation Owner
Schroeder	Connie	Dominion Virginia Power	Transmission Owner
Schuyler	Ken	PJM Interconnection	None
Schwarz	Stephanie	PJM Interconnection	None
Schweizer	David	PJM Interconnection	None
Servera	Max	Unicia Energy LP	Other Supplier
Shah	Vijay	PJM Interconnection	None
Sloan	Ben	Organization of PJM States, Inc. (OPSI)	None
Smith	Kara	Buckeye Power, Inc.	Electric Distributor
Snow	Jim	PJM Interconnection	None
Sotkiewicz	Paul	E-Cubed Policy Associates	None
Souder	Rich	PJM Interconnection	None
Souder	Michelle	PJM Interconnection	None
Stadelmeyer	Rebecca	PJM Interconnection	None
Stanisz	Mark	PJM Interconnection	None





OC Subcommittee/ Task Force Informational Section

System Operations Subcommittee (SOS): <u>SOS Website</u> Data Management Subcommittee (DMS): <u>DMS Website</u> DER & Inverter-Based Resources Subcommittee (DIRS): <u>DIRS Website</u> Fuel Requirements for Black Start Resources: <u>Fuel Reqt. for Black Start Resources Issue Tracker</u> Synchronous Reserve Deployment Task Force: <u>SRDTF Website</u> IROL – CIP Cost Recovery: IROL – CIP Cost Recovery Issue Tracker

Future Meeting Dates and Materials	Materials Due 🔹 to Secretary	Materials Published
------------------------------------	------------------------------	------------------------

Date	Time	Location	5 p.m.	4 p.m.
September 8, 2022	9 a.m.	PJM Conference & Training Center and WebEx	August 29, 2022	September 1, 2022
October 7, 2022	9 a.m.	PJM Conference & Training Center and WebEx	September 27, 2022	September 30, 2022
November 3, 2022	9 a.m.	PJM Conference & Training Center and WebEx	October 24, 2022	October 27, 2022
December 8, 2022	9 a.m.	PJM Conference & Training Center and WebEx	November 28, 2022	December 1, 2022

Author: Jeffrey McLaughlin

φjm

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:

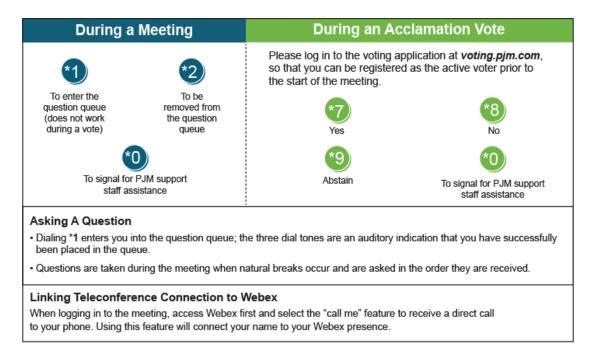
As a mandatory condition of attendance at today's meeting, attendees agree to adhere to the PJM Code of Conduct as detailed in PJM Manual M-34 section 4.5, including, but not limited to, participants' responsibilities and rules regarding the dissemination of meeting discussion and materials.

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 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.





Join a Meeting	2. Enter name (<i>First and Last*</i>) and corporate email		
meeting	3. Call in to the operator-assisted number		

*Note: 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.