

Operating Committee  
Webex/ PJM Conference & Training Center  
March 9, 2023  
9:00 a.m. – 2:00 p.m. EPT

## Administration

1. Lauren Strella Wahba, PJM, provided announcements; reviewed the Antitrust, Code of Conduct, Public Meetings/Media Participation, and the WebEx Participant Identification Requirement.
  - a. Review and approve draft minutes from the February 9, 2023 OC meeting. **The Committee approved the draft minutes from the February 09, 2023 Operating Committee meeting with 0 objections and 0 abstentions.**
  - b. Reviewed the OC work plan.

## Review of Operations

2. Review of Operating Metrics  
Hong Chen, PJM, reviewed the February 2023 PJM operating metrics slides. Metrics included PJM's load forecast error, BAAL performance, and transmission / generation outage statistics.
3. Security Update  
Steve McElwee, PJM, provided a security briefing.
4. Winter Storm Elliott Outage Data Review  
Dan Bennett, PJM, presented additional generator outage data from Winter Storm Elliott.

## Endorsements/Approvals

5. Manual 12: Balancing Operations  
Frank Hartman, PJM, reviewed Manual 12 changes as a part of the periodic review.  
**The Operating Committee endorsed the changes to Manual 12 with 0 objections and 0 abstentions.**
6. Manual 37: Reliability Coordination  
Matthew Wharton, PJM, reviewed Manual 37 changes as a part of the periodic review.  
**The Operating Committee endorsed the changes to Manual 37 with 0 objections and 0 abstentions.**
7. IROL-CIP Cost Recovery
  - a. Darrell Frogg, PJM, provided a review of PJM's proposed solution package.
  - b. Joe Bowring, IMM, provided a review of IMM's proposed solution package.  
**The committee endorsed the PJM proposal with 107 (89%) in favor, 13 (11%) opposed, and 1 abstention. A second vote showed stakeholders preferred the PJM proposal over status quo with 107 (89%) in favor, 13 (11%) opposed, and 1 abstention. The committee did not endorse the**

IMM proposal with 13 (11%) in favor, 107 (89%) opposed, and 1 abstention. A second vote showed stakeholders did not prefer the IMM proposal over status quo with 13 (11%) in favor, 107 (89%) opposed, and 1 abstention.

The PJM proposal will move on to the Market and Reliability Committee (MRC) as the main motion with 89% support and 89% preference over status quo.

[Issue Tracking: IROL-CIP Cost Recovery](#)

8. PJM EMS Upgrade Manual Documentation Issue Charge – Quick Fix  
Becky Davis, PJM, reviewed a Problem Statement, Issue Charge, and proposed changes to M01: Control Center and Data Exchange Requirements, M13: Emergency Operations, and M36: System Restoration associated with future EMS updates and to meet NERC Certification obligations. **The Operating Committee approved the Issue Charge and endorsed the proposed Manual Changes as part of the Quick Fix process outlined in Section 8.6.1 of Manual 34 with 0 objections and 0 abstentions.**

## First Reading

9. Manual 01: Control Center and Data Exchange  
Ryan Nice, PJM, will review Manual 01 changes as a part of the periodic review. **Due to the late posting of material and incorrect material posted, this item was requested to return as a first read at the April 13, 2023 meeting.**

## Additional Items

10. Reliability Compliance Update  
Becky Davis, PJM, will provide an overview on NERC, SERC, RF, and NAESB standards, and other pertinent regulatory and compliance information, and solicit feedback from the members on Reliability Compliance efforts. **This item was moved to the Informational Only Postings section.**
11. Regulation Performance Update  
Ilyana Dropkin, PJM, will provide an update on PJM regulation market performance. **This item was moved to the Informational Only Postings section.**
12. Primary Frequency Response Update  
Ross Kelly, PJM, will provide an update on PJM primary frequency response performance. **This item was moved to the Informational Only Postings section.**
13. Synchronous Reserve Update  
Dave Kimmel, PJM, provided a review of recent synchronous reserve performance.
14. PJM, TVA and LGE-KU Joint Reliability Coordination Agreement Update

Casey Noonan, PJM, provided an overview of the update to the Joint Reliability Coordination Agreement (JRCA) for the upcoming FERC filing.

15. Fuel Requirements for Black Start Resources – Pre-RFP Black Start Classification  
Dan Bennett, PJM, discussed the fuel assurance confirmation process for existing thermal Black Start resources prior to the beginning of the 2023 RTO-Wide Black Start RFP.
  
- x. PJM Comments on Virginia Department of Environmental Quality proposed temporary variance to operating permit requirements  
Gary Helm, PJM, provided an informational report on comments PJM plans to file on a Virginia Department of Environmental Quality proposal for a temporary local variance to operating permit requirements, which would allow the temporary operation of emergency generators during specified PJM conditions.

## Working Items

16. Outage Coordination
  - a. Joe Bowring, IMM, presented their position on transmission outage coordination.
  - b. Paul Dajewski, PJM, reviewed the PJM/PSEG/DC Energy proposed joint solution package and a review of the matrix.

[Issue Tracking: Outage Coordination](#)

## Informational Only Postings

10. Reliability Compliance Update  
Becky Davis, PJM, will provide an overview on NERC, SERC, RF, and NAESB standards, and other pertinent regulatory and compliance information, and solicit feedback from the members on Reliability Compliance efforts.
  
11. Regulation Performance Update  
Ilyana Dropkin, PJM, will provide an update on PJM regulation market performance.
  
12. Primary Frequency Response Update  
Ross Kelly, PJM, will provide an update on PJM primary frequency response performance.
  
17. Fuel Supply Overview  
Brian Fitzpatrick, PJM, will provide an overview of current fuel supply issues.
  
18. Fast-Start Capable Request Overview  
Informational posting on the overview of the Fast-Start capable process including a reminder of the April 15, 2023 submittal deadline.
  
19. System Operations Subcommittee (SOS)  
Informational posting of the summary of the most recent SOS meeting.

## 20. EMS Upgrade Program

Informational posting of the summary of the upgrade to a subset of PJM's Energy Management System (EMS) from Siemens Spectrum to OSI Monarch.

### Attendance

Last Name	First Name	Company	Sector
Patel (Facilitator)	Anita	PJM Interconnection, LLC	None
Strella Wahba (Secretary)	Lauren	PJM Interconnection, LLC	None
Afelumo	Foluso	PJM Interconnection, LLC	None
Aguilar	Fabiano Silveira	Strom Power, LLC	Other Supplier
Anders	David	PJM Interconnection, LLC	None
Anderson	A	MISO	None
Anderson	Juliet	Constellation Energy Generation, LLC	Generation Owner
Bagot	Nancy	Electric Power Supply Association	None
Baizman	Aaron	PJM Interconnection, LLC	None
Baker	Jeff	Duke Energy Ohio, Inc.	Transmission Owner
Banks	Carla	Rockland Capital	None
Barker	Jason	Constellation Energy Generation, LLC	Generation Owner
Barnett	Paul	LS Power Development, LLC	None
Barrow	Kimberly	Commonwealth of PA	None
Benchek	Jim	American Transmission Systems, Inc.	Transmission Owner
Bidelspach	Harry	Commonwealth of PA	None
Bleiweis	Bruce	DC Energy LLC	Other Supplier
Boneck	Steve		
Bowring	Joe	Monitoring Analytics, LLC	None
Boyle	Glen	PJM Interconnection, LLC	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
Brown	Richard (Rich)	PJM Interconnection, LLC	None
Bruno	Joshua	PJM Interconnection, LLC	None
Bryson	Michael (Mike)	PJM Interconnection, LLC	None
Callaghan	Chris	PJM Interconnection, LLC	None
Campbell	Bruce	Campbell Energy Advisors, LLC	None

Cao	Roger	PJM Interconnection, LLC	None
Carmean	Gregory (Greg)	Organization of PJM States, Inc. (OPSI)	None
Chang	Sean	Shell Energy North America (US), L.P.	Other Supplier
Chen	Hong	PJM Interconnection, LLC	None
Chmielewski	Brian	PJM Interconnection, LLC	None
Christopher	Mahila	Public Utilities Commission of Ohio (The)	None
Chu	George	PJM Interconnection, LLC	None
Ciabattoni	Joseph	PJM Interconnection, LLC	None
Circelli	Roseanne	Public Service Electric & Gas Company	Transmission Owner
Clark	Linda	PJM Interconnection, LLC	None
Clifford	Brigid	PG Renewables	
Cocco	Michael	Old Dominion Electric Cooperative	Electric Distributor
Concina	Wendell	Commonwealth Edison Company	Transmission Owner
Connelly	Matt	PJM Interconnection, LLC	None
Corash	Richard (Rich)	PSEG Energy Resources & Trade LLC	Other Supplier
Croop	Danielle	PJM Interconnection, LLC	None
Curtis	Kenneth	Drilling Info, Inc.	None
Dailey	Michael	Northern Virginia Electric Cooperative	Electric Distributor
Dajewski	Paul	PJM Interconnection, LLC	None
D'Antonio	Phil	PJM Interconnection, LLC	None
Daugherty	Danielle	ReliabilityFirst	None
Davis	Elizabeth (Becky)	PJM Interconnection, LLC	None
Davis	James (Jim)	Dominion Energy Generation Marketing, Inc.	Generation Owner
DeGiusto Jr	Vince	UGI Utilities, Inc.	Transmission Owner
Del Viscio	Michael	PJM Interconnection, LLC	None
Denby	Brett	NOVEC	None
DeVita	Thomas	PJM Interconnection, LLC	None
DiDonato	Anthony	PJM Interconnection, LLC	None
Domian	Christin	Duquesne Light Company	Transmission Owner
Douglass	Robert	Constellation Energy Generation, LLC	Generation Owner
Dreskin	Joan	INGAA	None
Dropkin	Ilyana	PJM Interconnection, LLC	None

Dropkin	Robert	PJM Interconnection, LLC	None
Dugan	Chuck	East Kentucky Power Cooperative, Inc.	Transmission Owner
Dumitriu	Nicolae	PJM Interconnection, LLC	None
Egan	Amanda	PJM Interconnection, LLC	None
Fabiano	Janell	PJM Interconnection, LLC	None
Fan	Zhenyu	PJM Interconnection, LLC	None
Filomena	Guy	Customized Energy Solutions, Ltd.*	None
Foladare	Kenneth (Ken)	Geenex Solar LLC	Other Supplier
Ford	Adrien	Old Dominion Electric Cooperative	Electric Distributor
Foster Cronin	Denise	East Kentucky Power Cooperative, Inc.	Transmission Owner
Franks	Edmund (Ed)	PJM Interconnection, LLC	None
Frogg	Darrell	PJM Interconnection, LLC	None
Fuess	Christian	White Pine Consulting	
Garcia	Adamy	PJM Interconnection, LLC	None
Gilani	Rehan	ConEdison Energy, Inc.	Other Supplier
Greening	Michele	PJM Interconnection, LLC	None
Guntle	Vince	American PowerNet Management	End-Use Customer
Haas	Howard	Monitoring Analytics, LLC	None
Handlin	Michael	PJM Interconnection, LLC	None
Hartung	Shanna	PJM Interconnection, LLC	None
Haugh	Michael	Office of the Ohio Consumers' Counsel	End-Use Customer
Hauske	David	PJM Interconnection, LLC	None
Hehir	Flannan	Appian Way Energy Partners MidAtlantic, LLC	Other Supplier
Heinle	Frederick (Erik)	Vistra	None
Heisey	Bradley (Brad)	Tenaska Pennsylvania Partners, LLC	Generation Owner
Hepplewhite	Peter	Wrigley Capital LLC	Other Supplier
Herel	Suzanne	PJM Interconnection, LLC	None
Herrera	Maria	PJM Interconnection, LLC	None
Hickey	Mike	PJM Interconnection, LLC	None
Hicks	Dave	Noble Americas Energy Solutions LLC	None
Hislop	David	PJM Interconnection, LLC	None
Hoatson	Thomas (Tom)	LS Power Development, LLC	None
Hoey	Edward	PJM Interconnection, LLC	None



Hohenshilt	Jennifer	Talen Energy Marketing, LLC	Generation Owner
Holdbrook	Ruth	Northern Virginia Electric Cooperative	Electric Distributor
Horger	Tim	PJM Interconnection, LLC	None
Horning	Lynn Marie	American Municipal Power, Inc.	Electric Distributor
Horstmann	John	Dayton Power & Light Company (The)	Transmission Owner
Hsia	Eric	PJM Interconnection, LLC	None
Hu	Yong	PJM Interconnection, LLC	None
Hudis	Gabriella	Gabel and Associates	None
Hull	Gerit	American Municipal Power, Inc.	Electric Distributor
Hurwich	Mark	Elliott Bay Energy Trading, LLC	Other Supplier
Hyatt	Earl	Monitoring Analytics, LLC	None
Hyzinski	Tom	GT Power Group	None
Iler	Arthur (Art)	Indiana Office of Utility Consumer Counsel	End-Use Customer
Jagtiani	Patricia	Natural Gas Supply Association	None
Janicki	Diane	Boston Energy Trading & Marketing, LLC	Other Supplier
Jardot	Gina	NRG Power Marketing LLC	Generation Owner
Johnson	Carl	Customized Energy Solutions, Ltd.*	None
Johnston	David	Indiana Utility Regulatory Commission	None
Jones	Scott	Indiana Office of Utility Consumer Counsel	End-Use Customer
Kane	Timothy	PJM Interconnection, LLC	None
Kelly	Ross	PJM Interconnection, LLC	None
Kelly	Stephen	Brookfield Energy Marketing LP	Other Supplier
Kelly	Ross	PJM Interconnection, LLC	None
Kent	Janessa	Duquesne Light Company	Transmission Owner
Kilgallen	Kevin	Avangrid Renewables LLC	Generation Owner
Kirk	Steve	NextEra Energy Transmission, LLC	Transmission Owner
Kogut	George	New York Power Authority	Other Supplier
Konowal	Richard (Rich)	PJM Interconnection, LLC	None
Laios	Takis	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Lake	David	FirstEnergy Corporation	Transmission Owner
Langbein	Pete	PJM Interconnection, LLC	None
LaRocque	Matthew (Matt)	PJM Interconnection, LLC	None

Lee	Ray	PJM Interconnection, LLC	None
Leith-Yessian	Devin	RTO Insider	None
Liang-Nicol	Cecilia	FirstEnergy Corporation	Transmission Owner
Luna	Joel	Monitoring Analytics, LLC	None
Mabry	David	McNees Wallace & Nurick LLC	None
Mali	Gizella	PJM Interconnection, LLC	None
Mason	Gary	FirstEnergy Corporation	Transmission Owner
Mathew	Lagy	PJM Interconnection, LLC	None
Matticola	Michele	PJM Interconnection, LLC	None
Matuszak	Alex	UGI Energy Services, LLC	Other Supplier
Maucher	Andrea	Division of the Public Advocate of the State of Delaware	End-Use Customer
McDewell	Christian	Commonwealth of PA	None
McElwee	Steve	PJM Interconnection, LLC	None
McGill	Susan	PJM Interconnection, LLC	None
McGlynn	Paul	PJM Interconnection, LLC	None
McLaverty	Megan	PJM Interconnection, LLC	None
McNeil	Justin	Office of the Attorney General, Kentucky	End-Use Customer
McNicholas	Daniel	Cogentrix Virginia Financing Holding Company, LLC	Other Supplier
Midgley	Sharon	Exelon Business Services Company, LLC	Transmission Owner
Mohler	Tina	PJM Interconnection, LLC	None
Monzon	Stephanie	PJM Interconnection, LLC	None
Mooney	Molly	PJM Interconnection, LLC	None
Moran	Christopher	PJM Interconnection, LLC	None
Moretti	Andrea	PJM Interconnection, LLC	None
Moscovitz	Daniel	PJM Interconnection, LLC	None
Muhl	Nancy	PJM Interconnection, LLC	None
Mulhern	Joseph	PJM Interconnection, LLC	None
Murawski	James	PSEG Energy Resources & Trade LLC	Other Supplier
Nareshkumar	Koushy	Potomac Electric Power Company	Electric Distributor
Noonan	Casey	PJM Interconnection, LLC	None
O'Connell	Moira	PJM Interconnection, LLC	None
Okenfuss	James	Savion, LLC	None
Olaley	Michael	PJM Interconnection, LLC	None
O'Leary	Christopher (Chris)	PSEG Energy Resources & Trade LLC	Other Supplier



Ondayko	Brock	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Pakela	Gregory (Greg)	DTE Energy Trading, Inc.	Other Supplier
Parrot	Sarah	Public Utilities Commission of Ohio	None
Patel	Keyurbhai (Keyur)	PJM Interconnection, LLC	None
Patel	Shodhan	Constellation Energy Generation, LLC	Generation Owner
Pfeiff	Michael		
Phenix	Michael	TAQA Gen X LLC	Generation Owner
Phillips	Darlene	PJM Interconnection, LLC	None
Pilong	Christopher	PJM Interconnection, LLC	None
Poulos	Greg	CAPS	None
Price	Mark	DC Energy Mid-Atlantic, LLC	None
Ramsay	Eli	PJM Interconnection, LLC	None
Ramsey	James	Suffolk Fund LLC	None
Rasmussen	Jay	Duke Energy Business Services LLC	Transmission Owner
Reffner	Brent	PJM Interconnection, LLC	None
Rudd	Daren	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Ryng	Daniel		
Sasser	Jonathan	Customized Energy Solutions, Ltd.*	None
Scarpignato	David (Scarp)	Calpine Energy Services, L.P.	Generation Owner
Scheidecker	Paul	Monitoring Analytics, LLC	None
Scheirer	Alexandra	PJM Interconnection, LLC	None
Schmitt	David	New Jersey Board of Public Utilities	None
Scott	Nicole	PJM Interconnection, LLC	None
Selick	Sam	Customized Energy Solutions, Ltd.*	None
Shaughnessy	Mike	Duquesne Light Company	Transmission Owner
Sillin	John	The Federal Energy Regulatory Commission	None
Siracuse	Colin	LS Power Development, LLC	None
Smith	Christopher	INGAA	None
Sorrels	James	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Sotkiewicz	Paul	E-Cubed Policy Associates	None
Souder	Michelle	PJM Interconnection, LLC	None
Spencer	Mark	LS Power Development, LLC	None

Stack	James	Duquesne Light Company	Transmission Owner
Stadelmeyer	Rebecca	Gable and Associates	None
Stefanowicz	Vincent	PJM Interconnection, LLC	None
Stemetzki	Michael	PJM Interconnection, LLC	None
Stern	Alexander (Alex)	Public Service Electric & Gas Company	Transmission Owner
Stone	Andy	PJM Interconnection, LLC	None
Stotesbury	Christina	PJM Interconnection, LLC	None
Sturgeon	John	Duke Energy Carolinas, LLC	Other Supplier
Sullivan	James		
Swalwell	Bradley (Brad)	Tangent Energy Solutions, Inc.	Other Supplier
Sweeney	Rory	Power Prose Inc.	
Theodore	Sharon	Electric Power Supply Association	None
Ushijima	Hiroaki	Jpower USA	None
Wagar	Ben	FirstEnergy Corporation	Transmission Owner
Waweru	James	PJM Interconnection, LLC	None
Wehnes	Kathleen	Maryland Public Service Commission	None
Wharton	Matthew	PJM Interconnection, LLC	None
Whitehead	Jeffrey (Jeff)	GT Power Group	None
Wilson	James	Wilson Energy Economics	None
Wynder	Michael	PJM Interconnection, LLC	None
Xu	Xu	PJM Interconnection, LLC	None
Yasutake	Sarah	Gabel and Associates	None
You	Cindy	Monitoring Analytics, LLC	None
Yovanovich	Laura	PJM Interconnection, LLC	None
Zhang	Michael	PJM Interconnection, LLC	None

## OC Subcommittee/ Task Force Informational Section

System Operations Subcommittee (SOS): [SOS Website](#)  
 Data Management Subcommittee (DMS): [DMS Website](#)  
 DER & Inverter-Based Resources Subcommittee (DIRS): [DIRS Website](#)  
 Synchronous Reserve Deployment Task Force: [SRDTF Website](#)  
 IROL – CIP Cost Recovery: [IROL – CIP Cost Recovery Issue Tracker](#)  
 Outage Coordination: [Outage Coordination Issue Tracker](#)

Future Meeting Dates and Materials			Materials Due to Secretary 	Materials Published
Date	Time	Location	5 p.m.	4 p.m.

April 13, 2023	9 a.m.	PJM Conference & Training Center and webex	April 03, 2023	April 06, 2023
May 11, 2023	9 a.m.	PJM Conference & Training Center and webex	May 01, 2023	May 04, 2023
June 08, 2023	9 a.m.	PJM Conference & Training Center and webex	May 29, 2023	June 01, 2023
July 13, 2023	9 a.m.	PJM Conference & Training Center and webex	July 03, 2023	July 06, 2023
August 10, 2023	9 a.m.	PJM Conference & Training Center and webex	July 31, 2023	August 03, 2023
September 07, 2023	9 a.m.	PJM Conference & Training Center and webex	August 28, 2023	August 31, 2023
October 05, 2023	9 a.m.	PJM Conference & Training Center and webex	September 25, 2023	September 28, 2023
November 02, 2023	9 a.m.	PJM Conference & Training Center and webex	October 23, 2023	October 26, 2023
December 07, 2023	9 a.m.	PJM Conference & Training Center and webex	November 27, 2023	November 30, 2023

Author: L. Stella Wahba

#### 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 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.

#### Participant Use of Webex Chat:

The use of the Webex chat feature during meetings shall be primarily reserved for administrative and logistical purposes, such as managing a question or comment queue, noting technical difficulties, and meeting support or management purposes. Utilizing Webex chat for any other commentary should be limited to short phrases. Detailed commentary or substantive dialog shall be shared orally by entering the speaker queue.

#### On the Phone, Dial



to Mute/Unmute

#### Linking Teleconference Connection to Webex

When logging in to the meeting, access Webex first and select the "call me" feature to receive a direct call to your phone. Using this feature will connect your name to your Webex presence.



# Draft Meeting Minutes

## Join a Meeting

1. Join meeting in the Webex desktop client
2. Enter name (*First and Last\**) and corporate email
3. Under “Select Audio Option” select “Call Me” option from the dropdown menu

*\*Note: Anonymous users or those using false usernames or emails will be dropped from the teleconference.*

Provide feedback on the progress of this group: [Facilitator Feedback Form](#)  
Visit [learn.pjm.com](http://learn.pjm.com), an easy-to-understand resource about the power industry and PJM's role.