Operating Committee WebEx Only May 12, 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

- 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 April 14th OC meeting. **The Committee**
 - approved the draft minutes from the April 14, 2022 Operating Committee meeting with 0 objections and 0 abstentions.
 - b. Reviewed of the OC work plan.
 - c. Endorsement of the OC Charter.
 The Operating committee endorsed the changes to the OC Charter with 0 objections and 0 abstentions.
 - d. Michele Greening, PJM, provided an update on the return to campus plan for stakeholder meetings.

Review of Operations

2. Review of Operating Metrics

Stephanie Schwarz, PJM, reviewed the April 2022 PJM operating metrics slides. Metrics included PJM's load forecast error, BAAL performance, and transmission / generation outage statistics.

2B. Security Update

Joe Callis, PJM, provided a security briefing.

Endorsements/Approvals

3. Manual 03: Transmission Operations

Lagy Mathew, PJM, reviewed Manual 03 changes as a part of the periodic review.

The Operating Committee endorsed the changes to Manual 03 with 0 objections and 0 abstentions.



4. Manual 36: System Restoration

Rich Brown, PJM, reviewed Manual 36 changes as a part of the periodic review. The Operating Committee endorsed the changes to Manual 36 with 0 objections and 0 abstentions.

5. Manual 12: Balancing Operations

Donnie Bielak, PJM, reviewed conforming changes to Manual 12: Balancing Operations as a part of the Stability Limits and Intelligent Reserve Deployment in Markets and Operation Issue Charge and Problem Statement being worked through the Markets Implementation Committee. There was limited stakeholder discussion regarding the desire for additional manual language revisions addressing operational actions to be taken prior to using generator output constraints.

Stability Limits in Markets and Operation

The Operating Committee endorsed the changes to Manual 12 with 8 objections and 11 abstentions.

6. Outage Coordination Issue Charge and Problem Statement

Paul McGlynn, PJM, reviewed a proposed Issue Charge and Problem Statement that will enhance outage coordination processes and procedures. Two friendly amendments to the Issue Charge were proposed and accepted.

The Operating Committee approved the Issue Charge (containing the two friendly amendments) with 0 objections and 1 abstention.

7. RSCS Charter

Monica Burkett, PJM, reviewed changes made to the Reliability Standards & Compliance Subcommittee Charter.

The Operating Committee approved the changes to the RSCS Charter with 0 objections and 0 abstentions.

First Reading

8. Manual 01: Control Center and Data Exchange Requirements

Jack O'Neill, PJM, reviewed conforming changes to Manual 01: Control Center and Data Exchange Requirements as a part of the Load Management Testing Requirements Issue Charge and Problem Statement.

The Operating Committee will be asked to endorse these changes at its next meeting.

Load Management Testing Requirements

Additional Items

9. OATF Review

Todd Bickel, PJM, reviewed the results of the summer 2022 Operations Assessment Task Force study.



10. Managing Transmission Line Ratings Order No. 881 Compliance Filing (RM20-16-000) Update

David Hislop, PJM, and Bilge Derin, PJM, provided an informational update regarding PJM's FERC Order No. 881 compliance efforts relating to ambient adjusted ratings. PJM continues to provide updates and solicit stakeholder input at Operating Committee meetings as it prepares its compliance filing, which is due July 12. 2022.

Order 881

11. PPL Dynamic Line Rating Implementation Update

Dave Hislop, PJM, provided an update on the implementation of the PPL Dynamic Line Rating.

Working Items

12. IROL-CIP Cost Recovery

Janell Fabiano, PJM, facilitated a discussion to review solution packages on the IROL-CIP Cost Recovery matrix as part of the Consensus Based Issue Resolution process. A stakeholder request was made to defer the official first read of solution packages until the June OC to allow more time for internal review. The official first read for solution packages will take place at the June OC.

Issue Tracking: IROL-CIP Cost Recovery

13. Renewable Dispatch

Janell Fabiano, PJM, facilitated a discussion to review and identify solution options on the Renewable Dispatch matrix as part of the Consensus Based Issue Resolution process.

Issue Tracking: Renewable Dispatch

14. Max Emergency Changes for Resource Limitation Reporting

Janell Fabiano, PJM, facilitated a discussion to identify design components and solution options on the Max Emergency Changes for Resource Limitation Reporting matrix as a part of the Consensus Based Issue Resolution Lite process. Issue Tracking: Max Emergency Changes for Resource Limitation Reporting

Informational Only Postings

15. System Operations Subcommittee (SOS)

Donnie Bielak, PJM, will provide a summary of the most recent SOS meeting.

16. NERC Lessons Learned

Kevin Hatch, PJM, will review the recently posted NERC Lessons Learned reports.

17. Reliability Compliance Update

pjm Draft Meeting Minutes

Becky Davis, PJM, will provide 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.

18. Administrative Update to Manual 13: Emergency Operations

An administrative update will be made to the manual load dump data tables found in Manual 13: Emergency Operations under:

- Attachment E: Manual Load Dump Allocation Tables
- Attachment F: PJM Manual Load Dump Capability, Exhibit 7

The data is updated on an annual basis to reflect the peak load forecast for the upcoming summer.

Attendance

| Last Name | First Name | Company | Sector |
|---------------------------|---------------|--|-----------------------|
| Phillips (Chair) | Darlene | PJM Interconnection | None |
| McLaughlin (Secretary) | Jeffrey | PJM Interconnection | None |
| Aguilar | Fabiano | Storm Power, LLC | Other Supplier |
| Anastasio | Elizabeth | PJM Interconnection | None |
| Anders | David | PJM Interconnection | None |
| Anderson | Jared | S&P Global Inc. | None |
| Atkinson | Tom | Line Vision Inc | None |
| Baker | Jeff | Duke Energy Ohio, Inc. | Transmission Owner |
| Barker | Jason | Constellation Energy Generation, LLC | Generation Owner |
| Barmer | Mike | Dominion Virginia Power | None |
| Benchek | Jim | American Transmission Systems, Inc. | Transmission Owner |
| Bennett | Dan | PJM Interconnection | None |
| Berton | Tyler | AEP Appalachian Transmission Company, Inc. | Transmission Owner |
| Bickel | Todd | PJM Interconnection | None |
| Blair | Tom | Monitoring Analytics, LLC | None |
| Bleiweis | Bruce | DC Energy LLC | Other Supplier |
| Boyle | Glen | PJM Interconnection | None |
| Brady | George | Ohio Valley Electric Corp | Transmission Owner |



| Braerman | Ken | Baltimore Gas and Electric Company | Transmission Owner |
|-------------|----------|--|-----------------------|
| Brodbeck | John | EDP Renewables North America, LLC | Generation Owner |
| Brown | Rich | PJM Interconnection | None |
| Bryson | Michael | PJM Interconnection | None |
| Burkett | Monica | PJM Interconnection | None |
| Callaghan | Chris | PJM Interconnection | None |
| Callis | Joe | PJM Interconnection | None |
| Carmean | Gregory | OPSI | None |
| Carroll | Rebecca | PJM Interconnection | None |
| Christopher | Mahila | Public Utilities Commission of Ohio | None |
| Ciabattoni | Joseph | PJM Interconnection | None |
| Circelli | Roseanne | Public Service Electric & Gas Company | Transmission Owner |
| Clark | Alden | DC Energy LLC | Other Supplier |
| Cocco | Michael | Old Dominion Electric | Electric |
| | | Cooperative | Distributor |
| Corash | Richard | PSEG Energy Resources & Trade LLC | Other Supplier |
| Corder | Nick | Commonwealth Chesapeake Company, LLC | Generation Owner |
| Curtis | Kenneth | Drilling Info, Inc. | None |
| Dadourian | John | Monitoring Analytics | None |
| Dajewski | Paul | PJM Interconnection | None |
| Dantonio | Phil | PJM Interconnection | None |
| Davis | Jim | Dominion Energy Generation Marketing, Inc. | Generation Owner |
| Degiusto | Vince | UGI Development Company | Generation Owner |
| Derin | Bilge | PJM Interconnection | None |
| Devita | Thomas | PJM Interconnection | None |
| Drake | Anna | PJM Interconnection | None |
| Egan | Amanda | PJM Interconnection | None |
| Fabiano | Janell | PJM Interconnection | None |
| Fan | Zhenyu | PJM Interconnection | None |
| Fazio | Danielle | Noble Americas Gas & Power Corp. | Other Supplier |
| Filomena | Guy | Customized Energy Solutions, Ltd. | None |
| Fitzpatrick | Brian | PJM Interconnection | None |



| Foladare | Ken | Geenex Solar LLC | Generation Owner |
|---------------|----------|--|-------------------------|
| Ford | Adrien | Old Dominion Electric Electric Cooperative Distributor | |
| Foster Cronin | Denise | East Kentucky Power Cooperative, Inc. | Transmission Owner |
| Franks | Chris | PJM Interconnection | None |
| Frogg | Darrell | PJM Interconnection | None |
| Gagen | Rod | Dominion Virginia Power | None |
| Garnett | Bryan | Duke Energy Ohio, Inc. | Transmission Owner |
| Gates | Terry | Appalachian Power Company (AEP Generation) | Transmission Owner |
| Gebele | Don | Dayton Power & Light Company | Transmission Owner |
| Gilani | Rehan | ConEdison Energy, Inc. | Other Supplier |
| Goodstein | Jon | DC Energy, LLC | Other Supplier |
| Greening | Michele | PJM Interconnection | None |
| Greiner | Gary | American PowerNet Management | End-Use Customer |
| Hammack | Matthew | PPL Electric Utilities Corporation | Transmission Owner |
| Hatch | Kevin | PJM Interconnection | None |
| Hepplewhite | Peter | Wrigley Capital LLC | Other Supplier |
| Hislop | David | PJM Interconnection | None |
| Hoang | Liam | PJM Interconnection | None |
| Hoatson | Tom | Riverside Generating, LLC | Generation Owner |
| Hohenshilt | Jennifer | Talen Energy Marketing, LLC | Generation Owner |
| Horger | Timothy | PJM Interconnection | None |
| Horning | Lynn | Customized Energy Solutions, Ltd. | None |
| Horstmann | John | Dayton Power & Light Company | Transmission Owner |
| Hudson | Wes | Dominion Virginia Power | None |
| Hull | Gerit | American Municipal Power, Inc. | Electric Distributor |
| Hyatt | Earl | Monitoring Analytics | None |
| Hyzinski | Tom | GT Power Group, LLC | None |
| ller | Art | Indiana Office of Utility Consumer Counsel | End-Use Customer |



| Janicki | Diane | Boston Energy Trading & Marketing, LLC | Other Supplier |
|--------------|-----------|---|-----------------------|
| Jardot | Gina | NRG Power Marketing, LLC Generation Owner | |
| Jett | William | Duke Energy Business Services LLC | Transmission Owner |
| Johnson | Carl | Customized Energy Solutions, Ltd. | None |
| Josyula | Siva | Monitoring Analytics | None |
| 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 |
| Kim | Sung | PJM Interconnection | None |
| Kogut | George | New York Power Authority | Other Supplier |
| Kudryavtseva | Viktoriya | Gen IV Investment | Other Supplier |
| · | | Opportunities, LLC | |
| Lai | Erin | PJM Interconnection | None |
| Lake | David | FirstEnergy Corporation | Transmission Owner |
| Lee | Ray | PJM Interconnection | None |
| Liang-Nicol | Cecilia | Monongahela Power Company | Transmission Owner |
| Libbos | Robin | FirstEnergy Corporation | Transmission Owner |
| Lu | Chen | PJM Interconnection | None |
| Luna | Joel | Monitoring Analytics | None |
| Mabry | David | McNees Wallace & Nurick LLC | None |
| Mali | Gizella | PJM Interconnection | None |
| Manno | Dean | PJM Interconnection | None |
| Mathew | Lagy | PJM Interconnection | None |
| McGlynn | Paul | PJM Interconnection | None |
| McLaverty | Megan | PJM Interconnection | None |
| McNeil | Justin | Office of the Attorney General, | End-Use |
| | | Kentucky | Customer |
| Midgley | Sharon | Exelon Business Services Company, LC | Transmission Owner |
| Muhl | Nancy | PJM Interconnection | None |
| Neubrander | Kerry | DC Energy Mid-Atlantic, LLC | Other Supplier |



| Nice | Ryan | PJM Interconnection | None |
|-------------|-----------|--|-------------------------|
| Okenfuss | James | Savion, LLC | None |
| Olinger | Robert | Gen Ops, LLC | Other Supplier |
| Ondayko | Brock | AEP Appalachian Transmiss Transmission Company, Inc. Owner | |
| O'Neill | Jack | PJM Interconnection | None |
| Pakela | Gregory | DTE Energy Trading, Inc. | Other Supplier |
| Peebles | Andrew | Saracen Energy East LP | Other Supplier |
| Pilch | Joe | Duquesne Light Company | Transmission Owner |
| Pilong | Chris | PJM Interconnection | None |
| Pincus | Steven | PJM Interconnection | None |
| Poulos | Greg | CAPS | None |
| Rainey | John | Northern Virginia Electric Cooperative | Electric Distributor |
| Robinson | Becky | Vista Energy Marketing, L.P. | Other Supplier |
| Rohrbach | John | Southern Maryland Electric Cooperative, Inc. | Electric Distributor |
| Rosenberger | Eric | PPL Electric Utilities Corp. dba PPL Utilities | Transmission Owner |
| Rutledge | Craig | AEP Appalachian Transmission Company, Inc. | Transmission Owner |
| Sasser | Jonathan | Customized Energy Solutions, Ltd. | None |
| Scarp | David | Calpine Energy Services, L.P. | Generation Owner |
| Schwarz | Stephanie | PJM Interconnection | None |
| Schweizer | David | PJM Interconnection | None |
| Sells | Scott | East Kentucky Power Cooperative, Inc. | Transmission Owner |
| Shaughnessy | Mike | Duquesne Light Company | Transmission Owner |
| Shenk | Jessica | Dominion | |
| Sillin | John | The Federal Energy Regulatory Commission | None |
| Sloan | Ben | Organization of PJM States, Inc. (OPSI) | None |
| Sotkiewicz | Paul | E-Cubed Policy Associates | None |
| Souder | Michelle | PJM Interconnection | None |
| Squibb | Bill | Ohio Valley Electric Corp | Transmission Owner |
| Stadelmeyer | Rebecca | PJM Interconnection | None |



| Stanisz | Mark | PJM Interconnection | None |
|---------------|---------|---------------------------------------|-----------------------|
| Stefanowicz | Vincent | PJM Interconnection | None |
| Stern | Alex | Public Service Electric & Gas Company | Transmission Owner |
| Stone | Andy | PJM Interconnection | None |
| Strella Wahba | Lauren | PJM Interconnection | None |
| Sturgeon | John | Duke Energy Business Services LLC | Transmission Owner |
| Svenson | Heather | Public Service Electric & Gas Company | Transmission Owner |
| Swalwell | Brad | Tangent Energy Solutions, Inc. | Other Supplier |
| Sweeney | Rory | GT Power Group | None |
| Swigonski | Frank | Advanced Energy Economy, Inc. | None |
| Tam | Simon | PJM Interconnection | None |
| Tiemann | Jeff | PJM Interconnection | None |
| Walcavich | Colin | National Grid Renewables, LLC | None |
| White | Neil | AMP Transmission, LLC | Transmission Owner |
| Whitehead | Jeff | GT Power Group | None |
| Wilson | James | Wilson Energy Economics | None |
| Yoder | Michael | RTO Insider | None |
| You | Cindy | | |
| Yovanovich | Laura | PJM Interconnection | None |
| Zhang | Michael | 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): DIRS Website

Fuel Requirements for Black Start Resources: Fuel Reqt. for Black Start Resources Issue

Tracker

Synchronous Reserve Deployment Task Force: <u>SRDTF Website</u> IROL – CIP Cost Recovery: <u>IROL – CIP Cost Recovery Issue Tracker</u>

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



| June 9, 2022 | 9 a.m. | PJM Conference & Training Center and WebEx | May 30, 2022 | June 2, 2022 |
|----------------------|--------|--|--------------------|-----------------------|
| July 14, 2022 | 9 a.m. | PJM Conference & Training Center and WebEx | July 1, 2022 | July 7, 2022 |
| August 11, 2022 | 9 a.m. | PJM Conference & Training Center and WebEx | August 1, 2022 | August 4, 2022 |
| 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: L. Strella 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.



During a Meeting



To enter the question queue (does not work during a vote)

removed from the question queue

To signal for PJM support staff assistance

During an Acclamation Vote

Please log in to the voting application at voting.pjm.com, so that you can be registered as the active voter prior to the start of the meeting.





Abstain



To signal for PJM support staff assistance

Asking A Question

- 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.

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.

Join a Meeting

- 1. Join meeting in the Webex desktop client
- 2. Enter name (First and Last*) and corporate email
- 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: Facilitator Feedback Form Visit learn.pjm.com, an easy-to-understand resource about the power industry and PJM's