

Operating Committee
PJM Conference & Training Center, Audubon, PA
September 10, 2019
9:00 a.m. – 12:00 p.m. EPT

Administration

1. The Operating Committee (OC) Agenda for this meeting was **approved**.
2. The Draft Minutes of the August 6 OC meeting were **approved** as drafted by acclamation with 0 objections and 0 abstentions.
3. Mr. Don Wallin, PJM, reviewed the OC work plan.
- 3a. **2019 PJM Stakeholder Survey Update**
Mr. Don Wallin, PJM, provided the OC with an update regarding the 2019 PJM Stakeholder Survey. The survey will be open from September 30 to October 11. Mr. Wallin also notified the OC that PJM is updating its communication subscription tool and that to ensure continued communications from PJM, stakeholders must provide their IT support teams with the new IP address, 13.111.63.217. Mr. Wallin noted that stakeholders who have additional questions should reach out to PJM for assistance.

Review of Operations

4. **Review of Operational Events**
There were no operational events to report for this month's meeting.
5. **Post Contingency Local Load Relief Warning (PCLLRW) Procedure Education**
Mr. Frank Hartman, PJM, provided education on PJM's PCLLRW procedure.
6. **Review of Operating Metrics**
Ms. Stephanie Monzon, PJM, reviewed the August 2019 PJM operating metrics slides. Metrics included PJM's load forecast error, BAAL performance, transmission / generation outage statistics, and Perfect Dispatch historical performance.

PJM will continue to provide stakeholders with PCLLRW trending data in the Appendix section of the Operating Metrics for review at future OC meetings.

Endorsements/Approvals

7. **Manual 14D Changes**
Mr. Vince Stefanowicz, PJM, reviewed the proposed changes to PJM Manual 14D: Generator Operational Requirements. The review included a cover to cover review and proposed language changes regarding compliance with FERC Order 841 for energy storage participation. The Operating Committee **endorsed** these changes by acclamation with 0 objections and 0 abstentions.
8. **Manual 36 and 40 Changes**
Ms. Laura Walter, PJM, reviewed the proposed changes to PJM Manual 36: System Restoration and PJM Manual 40: Training and Certification Requirements regarding FERC Order 841 for energy storage

participation. The Operating Committee **endorsed** these changes by acclamation with 0 objections and 0 abstentions.

First Readings

9. **Manual 03A Changes**

Ms. Maria Baptiste, PJM, reviewed the proposed changes to PJM Manual 03A: Energy Management System (EMS) Model Updates. **The Operating Committee will be asked to endorse these changes at the next OC meeting.**

Stakeholders also discussed the importance of presenting periodic manual reviews separate from proposed manual changes which would potentially require a problem statement and issue charge. Ms. Baptiste will take that feedback back to the Data Management Subcommittee (DMS) for discussion.

OC Subcommittee / Task Force Updates

10. **System Operations Subcommittee (SOS)**

Ms. Rebecca Carroll, PJM, provided a summary of the most recent SOS meeting. PJM will provide September transient shortage event count data for September at the next OC meeting.

11. **Data Management Subcommittee (DMS)**

Ms. Diane Lake, PJM, provided a summary of the most recent DMS meeting.

12. **Distributed Energy Resources Subcommittee (DERS)**

Mr. Scott Baker, PJM, provided a summary of the most recent DERS meeting.

13. **System Restoration Coordinators Subcommittee (SRCS)**

There were no SRCS updates for this month's meeting.

14. **Primary Frequency Response Sr. Task Force (PFRSTF)**

There were no PFRSTF subcommittee updates for this month's meeting.

Unit Specific Parameter Updates

15. **Unit Specific Parameter Updates**

Ms. Lauren Strella Wahba, PJM, provided an update on Unit Specific Parameters.

PJM Initiatives/Education Updates

16. **Fuel Requirements for Black Start Resources Update**

There were no Fuel Requirements for Black Start Resources issue updates for this month's meeting. More information on this initiative can be found at PJM's Issues Tracking page.

<https://www.pjm.com/committees-and-groups/issue-tracking/issue-tracking-details.aspx?Issue={B7F726E1-9F06-414E-8516-4D69B5050AF4}>

Tool and Informational Updates

17. Preliminary 2020 Project Budget Review

Mr. Jim Snow, PJM, reviewed the Preliminary 2020 Project Budget.

18. Resource Tracker Application Updates

Mr. Brian Lynn, PJM, reviewed upcoming changes to the Resource Tracker application and provided a review of the annual review period.

19. Synchronous Reserve Performance Updates

Mr. David Kimmel, PJM, provided an update on PJM's synchronous reserve performance.

20. NERC Lessons Learned

Mr. Donnie Bielak, PJM, provided an update on recently posted NERC lessons learned.

21. Reliability Compliance Update

Mr. Preston Walker, PJM, provided an update on NERC, SERC and RFC standards, and other pertinent regulatory and compliance information, and solicited feedback from the members on Reliability Compliance efforts. Stakeholders reminded the OC that an informal comment period for the Electromagnetic Pulses (EMP) Task Force Strategic Recommendations Report is open through 8 p.m. Eastern, Monday, September 30, 2019. PJM will report out a status update of the report at a future OC meeting.

22. FERC-NERC January 2018 Extreme Cold Weather Event Report Update

Ms. Alpa Jani, PJM, provided an update regarding PJM's review of the FERC-NERC January 2018 Extreme Cold Weather Event Report. PJM is still in the process of completing an analysis of the report recommendations and is reviewing potential areas for improvement. PJM will present recommendations from the report to the OC when complete.

23. Pricing Interface Update

There have been no newly created pricing interfaces.

Non-Retail Behind the Meter Generation (NRBTMG) Business Rules Issue

24. Non-Retail BTMG Business Rules Issue Update

Ms. Theresa Esterly, PJM, provided a status update on the Non-Retail BTMG business rule issue. PJM received feedback regarding proposed language changes to PJM Manual 14D: Generator Operational Requirements. PJM will continue to work with stakeholders to propose additional updates to address any outstanding concerns in advance of the September MRC meeting.

25. Non-Retail BTMG Data Collection Update

Ms. Theresa Esterly, PJM, provided a status update on the Non-Retail BTMG data collection efforts. PJM is continuing its efforts to reach out to impacted stakeholders in order to improve NRBTMG data quality.

Information Only

1. The link to the 2019 FERC and NERC Staff Report for The South Central United States Cold Weather Bulk Electric System Event of January 17, 2018 is attached.
https://www.nerc.com/pa/rrm/ea/Documents/South_Central_Cold_Weather_Event_FERC-NERC-Report_20190718.pdf. The link to the report has also been posted as an Information Only item to the September 10 OC meeting website.

Action Items

1. PJM will review Manual 03 language changes regarding stability studies in order to align with proposed Manual 10 language changes.
2. Manual 10 endorsement vote will be deferred until the Modeling Units with Stability Limitations Problem Statement and Issue Charge is addressed by the MIC.
3. PJM will include Transient Shortage Pricing event count data for September 2019 at the October OC.
4. PJM will continue to provide PCLLRW trending data in the Appendix section of the Operating Metrics review at future OC meetings.
5. PJM will report out on the activities of the NERC Electromagnetic Pulses (EMP) Task Force Strategic Recommendations Report at a future OC meeting.
6. PJM will reach out to stakeholders to clarify Manual 14D NRBTMG language concerns.

Previous OC Education

Network Model Alignment Initiative	2/5/2019	https://www.pjm.com/-/media/committees-groups/committees/oc/20190205/20190205-item-21-network-model-alignment-achievements.ashx
Forecasting Education	4/9/2019	https://www.pjm.com/-/media/committees-groups/committees/oc/20190409/20190409-item-19-oc-forecast-education.ashx
Emergency Procedures Overview	4/9/2019	https://www.pjm.com/-/media/committees-groups/committees/oc/20190409/20190409-item-23b-emergency-procedures-overview.ashx
Behind the Meter Generation Settlement History	4/9/2019	https://www.pjm.com/-/media/committees-groups/committees/oc/20190409/20190409-item-23b-settlement-agreement.ashx

Improving Load Forecast with BTM Solar Forecast	5/14/2019	https://www.pjm.com/-/media/committees-groups/committees/oc/20190514/20190514-item-20-improving-load-forecast-with-btm-solar-forecast.ashx
Existing Non-Retail Behind the Meter Generation Business Rules	5/14/2019	https://www.pjm.com/-/media/committees-groups/committees/oc/20190514/20190514-item-27-existing-nrbtmg-business-rules.ashx
Non-Wholesale Distributed Energy Resources Data Collection	5/14/2019	https://www.pjm.com/-/media/committees-groups/committees/oc/20190514/20190514-item-27a-der-data-collection.ashx
Process Used to Estimate Non-Retail Behind the Meter Generation in PJM	5/14/2019	https://www.pjm.com/-/media/committees-groups/committees/oc/20190514/20190514-item-27b-nrbtmg-estimation-process.ashx
Non-Retail Behind the Meter Generation Settlement Agreement – Determination of the Threshold and Cap	5/14/2019	https://www.pjm.com/-/media/committees-groups/committees/oc/20190514/20190514-item-27c-threshold-and-cap-for-nrbtmg.ashx
FERC 841 Education	6/11/2019	https://www.pjm.com/-/media/committees-groups/committees/oc/20190611/20190611-item-06-ferc-order-841-education.ashx
Transient Stability Analysis and Modeling Education	6/11/2019	https://www.pjm.com/-/media/committees-groups/committees/oc/20190611/20190611-item-17-stability-limit-process.ashx
Post Contingency Local Load Relief Warning Process	9/10/2019	https://www.pjm.com/-/media/committees-groups/committees/oc/20190910/20190910-item-05-pcllrw-education.ashx

In Attendance (In Person)

Last Name	First Name	Company	Sector
Phillips (Chair)	Darlene	PJM Interconnection, LLC	Not Applicable
Wallin (Secretary)	Don	PJM Interconnection, LLC	Not Applicable

Benckek	Jim	FirstEnergy Solutions Corp.	Transmission Owner
D'Alessandris	Lou	FirstEnergy Solutions Corp.	Transmission Owner
Foladare	Kenneth	Tangibl	Not Applicable
Ford	Adrien	Old Dominion Electric Cooperative	Electric Distributor
Greiner	Gary	PSEG Energy Resources and Trade LLC	Other Supplier
Hyzinski	Tom	GT Power Group	Not Applicable
Johnson	Carl	Customized Energy Solutions Ltd.	Not Applicable
Kogut	George	New York Power Authority	Other Supplier
Lieberman	Steven	American Municipal Power, Inc.	Electric Distributor
Lowe	Connie	Dominion Virginia Power	Not Applicable
Midgley	Sharon	Exelon Business Services Company, LLC	Transmission Owner
O'Connell	Robert	PPGI Fund A/B Development, LLC.	Generation Owner
Rohrbach	John	ACES/SMECO	Electric Distributor
Rumsey	Amanda	PPL Electric Utilities Corp. dba PPL Utilities	Transmission Owner
Smith	Christen	RTO Insider	Not Applicable
Sturgeon	John	Duke Energy Carolinas LLC.	Other Supplier
Sweeney	Rory	GT Power Group	Not Applicable

In Attendance (Via Conference Call)

Last Name	First Name	Company	Sector
Ainspan	Malcolm	Energy Curtailment Specialists, Inc.	Other Supplier
Benson	Chris	PowerBridge, LLC.	Transmission Owner
Boecker	Jeremy	UGI Development	Transmission Owner
Capra	Carlo	ITC Interconnection LLC	Other Supplier
Campbell	Bruce	EnergyConnect, Inc.	Other Supplier

Carmean	Greg	OPSI	Not Applicable
Chandler	Kent	Office of the Attorney General, Kentucky	Not Applicable
Chintapalli	Raj	BP Energy Company	Other Supplier
Crystle	Gil	UGI Development	Transmission Owner
Cocco	Michael	Old Dominion Electric Cooperative	Electric Distributor
Coultas	Ann	Invenergy LLC.	Generation Owner
DeGiusto	Vince	UGI Development Company	Generation Owner
DeLosa	Joe	DE Public Service Commission	Not Applicable
DiNicola	Laura	PPL Electric Utilities Corp.	Transmission Owner
Domian	Christin	Duquesne Light Company	Transmission Owner
Dugan	Chuck	East Kentucky Power Cooperative, Inc.	Transmission Owner
Durinsky	Mike	FirstEnergy Solutions Corp.	Transmission Owner
Filomena	Guy	Customized Energy Solutions, Ltd.	Not Applicable
Garbini	Marj	Potomac Electric Power Company	Electric Distributor
Gates	Terry	Appalachian Power Company	Transmission Owner
Crystle	Gil	UGI Development Company	Transmission Owner
Gilani	Rehan	ConEdison Energy, Inc.	Other Supplier
Gear	Mark	Exelon Generation Co., LLC	Generation Owner
Hanebuth	Michele	Consolidated Edison Company of NY. Inc.	Transmission Owner
Hastings	David	Market Interconnection LLC.	Not Applicable
Heisley	Bradley	Wolf Hills Energy LLC.	Generation Owner
Helms	Joe	Rainbow Energy Marketing Corporation	Other Supplier
Herbert	Michael	Delorean Power	Not Applicable
Hoatson	Tom	Riverside Generating LLC.	Other Supplier

Horning	Lynn Marie	Customized Energy Solutions Ltd.	Not Applicable
Horstmann	John	Dayton Power and Light Company	Transmission Owner
Janicki	Diane	Boston Energy Trading & Marketing, LLC	Generation Owner
Jens	Tom	Black Oak Energy, LLC.	Other Supplier
Jones	Ryan	CCS Energy	Not Applicable
Kelley	Ryan	Duke Energy Ohio, Inc.	Transmission Owner
Kelly	Stephen	Brookfield Energy Marketing LP	Other Supplier
Kirk	Ryan	Appalachian Power Company	Transmission Owner
Krawczyk	Leslie	Reliability First	Not Applicable
Leisure	Jill	Keystone Projects	Not Applicable
Libbos	Robin	FirstEnergy Solutions Corp.	Transmission Owner
Mabry	Dave	McNees Wallace & Nurick LLC.	Not Applicable
Mackiewicz	David	PPL Web	Transmission Owner
Markiewicz	Cindy	FirstEnergy Solutions Corp.	Transmission Owner
Matuszak	Alex	UGI Energy Services LLC.	Other Supplier
McAlister	Lisa	American Municipal Power, Inc.	Electric Distributor
Norton	Chris	American Municipal Power, Inc.	Electric Distributor
O'Connell	Robert	PPGI Fund A/B Development, LLC	Generation Owner
O'Leary	Chris	Public Service Electric and Gas Company	Transmission Owner
Ondayko	Brock	Appalachian Power Company	Transmission Owner
Pakela	Gregory	DTE Energy Trading, Inc.	Other Supplier
Philips	Marji	Direct Energy Business, LLC.	Other Supplier
Poelstra	Tabatha	Appalachian Way Energy Partners	Not Applicable
Poulos	Greg	CAPS	Not Applicable

Sasser	Jonathan	Customized Energy Solutions, Ltd.	Not Applicable
Schum	Alice	Illinois Municipal Electric Agency	Not Applicable
Singer	Chad	Trane Grid Services, LLC.	Other Supplier
Squibb	William	Ohio Valley Electric Corporation	Transmission Owner
Stern	Alex	Public Service Electric and Gas Company	Transmission Owner
Tatum	Ed	American Municipal Power, Inc.	Electric Distributor
Vayda	Brian	Borough of Park Ridge, New Jersey	Electric Distributor
Weeks	Tom	Michigan Public Power Agency	Not Applicable
Welty Jr.	Peter	Easton Utilities Commission	Electric Distributor
Whitehead	Jeffrey	GT Power Group	Not Applicable
Zhao	Ji	Appalachian Power Company	Transmission Owner

PJM Attendees

Last Name	First Name	Company	Sector
Baker	Scott	PJM Interconnection, LLC	Not Applicable
Baptiste	Maria	PJM Interconnection, LLC	Not Applicable
Bennett	Daniel	PJM Interconnection, LLC	Not Applicable
Bielak	Donnie	PJM Interconnection, LLC	Not Applicable
Boyle	Glen	PJM Interconnection, LLC	Not Applicable
Brown	Rich	PJM Interconnection, LLC	Not Applicable
Bryson	Mike	PJM Interconnection, LLC	Not Applicable
Carroll	Rebecca	PJM Interconnection, LLC	Not Applicable
Chen	Hong	PJM Interconnection, LLC	Not Applicable
Croop	Danielle	PJM Interconnection, LLC	Not Applicable
Dajewski	Paul	PJM Interconnection, LLC	Not Applicable
Davis	Elizabeth	PJM Interconnection, LLC	Not Applicable

Esterly	Theresa	PJM Interconnection, LLC	Not Applicable
Fabiano	Janell	PJM Interconnection, LLC	Not Applicable
Farhat	Michelle	PJM Interconnection, LLC	Not Applicable
Franks	Christine	PJM Interconnection, LLC	Not Applicable
Frogg	Darrell	PJM Interconnection, LLC	Not Applicable
Gluck	Jim	PJM Interconnection, LLC	Not Applicable
Greening	Michele	PJM Interconnection, LLC	Not Applicable
Hartman	Frank	PJM Interconnection, LLC	Not Applicable
Hatch	Kevin	PJM Interconnection, LLC	Not Applicable
Herel	Suzanne	PJM Interconnection, LLC	Not Applicable
Hoey	Ed	PJM Interconnection, LLC	Not Applicable
Huynh	Toan	PJM Interconnection, LLC	Not Applicable
Jani	Alpa	PJM Interconnection, LLC	Not Applicable
Kenney	Susan	PJM Interconnection, LLC	Not Applicable
Kimmel	David	PJM Interconnection, LLC	Not Applicable
Lake	Diane	PJM Interconnection, LLC	Not Applicable
Lousos	Alex	PJM Interconnection, LLC	Not Applicable
Lynn	Brian	PJM Interconnection, LLC	Not Applicable
McGlynn	Paul	PJM Interconnection, LLC	Not Applicable
Monzon	Stephanie	PJM Interconnection, LLC	Not Applicable
Mooney	Molly	PJM Interconnection, LLC	Not Applicable
Morelli	Lisa	PJM Interconnection, LLC	Not Applicable
Nix	Emma	PJM Interconnection, LLC	Not Applicable
Olaleye	Michael	PJM Interconnection, LLC	Not Applicable

Pincus	Steve	PJM Interconnection, LLC	Not Applicable
Schuyler	Ken	PJM Interconnection, LLC	Not Applicable
Schweizer	David	PJM Interconnection, LLC	Not Applicable
Stefanowicz	Vince	PJM Interconnection, LLC	Not Applicable
Stone	Andy	PJM Interconnection, LLC	Not Applicable
Strella Wahba	Lauren	PJM Interconnection, LLC	Not Applicable
Tam	Simon	PJM Interconnection, LLC	Not Applicable
Thomas	Henry	PJM Interconnection, LLC	Not Applicable
Velasco	Cheryl Mae	PJM Interconnection, LLC	Not Applicable
Walker	Preston	PJM Interconnection, LLC	Not Applicable
Walter	Laura	PJM Interconnection, LLC	Not Applicable
Warner – Freeman	Jennifer	PJM Interconnection, LLC	Not Applicable
Williams	Stan	PJM Interconnection, LLC	Not Applicable

Future Meeting Dates

October 15, 2019	9:00 a.m.	PJM Interconnection - Conference and Training Center
November 12, 2019	9:00 a.m.	PJM Interconnection - Conference and Training Center
December 10, 2019	9:00 a.m.	PJM Interconnection - Conference and Training Center

Author: Don Wallin

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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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