



Operating Committee
PJM Conference & Training Center, Audubon, PA
August 6, 2019
9:00 a.m. – 12:00 p.m. EPT

Administration

- 1. The Operating Committee (OC) Agenda for this meeting was <u>approved</u>. Mr. Don Wallin, PJM, notified the OC that the Endorsements section of the agenda was updated to reference Agenda Item 19 for the endorsement vote for proposed changes to PJM Manuals 13 and 14D regarding the Non-Retail Behind the Meter Generation (NRBTMG) business issue.
- 2. The Draft Minutes of the July 9, OC meeting were <u>approved</u> as drafted by acclamation with 0 objections and 0 abstentions.
- 3. Mr. Don Wallin, PJM, reviewed the OC work plan. Mr. Wallin noted that the OC work plan was adjusted to reflect a change in the review schedule for PJM Manual 3A: Energy Management System (EMS) Model Updates and Quality Assurance (QA). The OC work plan now reflects the Manual 3A scheduled first reading and endorsement vote occurring in the September/October timeframe. Mr. Wallin also notified the OC that the PJM Manual 12: Balancing Operations review schedule was also adjusted to reflect a scheduled first reading and endorsement vote occurring in the November/December timeframe.

Review of Operations

4. Review of Operational Events

Ms. Rebecca Carroll, PJM, provided a review of PJM operations since the last OC Meeting. Ms. Carroll reported that on Friday, July 19 PJM reached a peak load (preliminary) of 152,315 MW. Ms. Carroll also shared with the OC that PJM achieved an all-time weekend peak load (preliminary) on Saturday, July 20 of 150,454 MW, noting that the previous all-time weekend peak of 149,644 MW had occurred on July 7, 2012. Stakeholders requested Post Contingency Local Load Relief Warning (PCLLRW) data so a comparison could be made between 2018 and 2019 values. PJM will provide this data at the September 10 OC meeting as part of the Operating Metrics review.

Mr. Wallin, PJM, notified the OC that beginning with the September 10 OC meeting, the information presented in the review of operational events segment of the agenda would be presented in the System Operating Subcommittee (SOS) report. Mr. Wallin stated that the intent of the change is to avoid reporting duplicate information at the OC. Mr. Wallin shared with the OC that the Review of Operational Events will remain on the agenda as a standing item but in the future would contain unique events that impact system operations such as a polar vortex.

5. Review of Operating Metrics

Ms. Stephanie Monzon, PJM, reviewed the July 2019 PJM operating metrics slides. Metrics included PJM's load forecast error, BAAL performance, transmission / generation outage statistics, and Perfect Dispatch historical performance.





Endorsements/Approvals

The endorsement vote for the August 6 meeting was conducted as part of the Non-Retail Behind the Meter Generation business issue in Agenda Item 19.

First Readings

There were no first readings for this month's meeting.

OC Subcommittee / Task Force Updates

6. System Operations Subcommittee (SOS)

Ms. Rebecca Carroll, PJM, provided a summary of the most recent SOS meeting.

7. Data Management Subcommittee (DMS)

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

8. Distributed Energy Resources Subcommittee (DERS)

The DERS report was deferred until the September 10 OC meeting.

9. System Restoration Coordinators Subcommittee (SRCS)

Mr. Brian Lynn, PJM, provided a review of the May 21 – 22 Spring Restoration Drill.

10. Primary Frequency Response Sr. Task Force (PFRSTF)

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

Unit Specific Parameter Updates

11. Unit Specific Parameter Updates

There were no Unit Specific Parameter updates for this month's meeting.

PJM Initiatives/Education Updates

12. 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-trackingdetails.aspx?lssue={B7F726E1-9F06-414E-8516-4D69B5050AF4}

13. Review of PJM Energization of New Equipment/Cut-In Process

Ms. Nicole Scott, PJM, provided education on PJM's energization of new equipment/cut-in process.

Tool and Informational Updates

14. Regulation Performance Updates

Ms. Danielle Croop, PJM, provided an update on PJM's regulation performance.





15. NERC Lessons Learned

There were no NERC lessons learned for this month's meeting.

16. 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.

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

Ms. Alpa Jani, PJM, provided an update regarding the FERC-NERC January 2018 Extreme Cold Weather Event Report. PJM is completing an analysis of the report recommendations and is reviewing potential areas for improvement. PJM will review the analysis of the report at the September 10 OC meeting. Ms. Jani requested that stakeholders conduct a similar analysis and provide feedback for review at the September 10 OC meeting.

18. Pricing Interface Update

There have been no newly created pricing interfaces.

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

19. Manual 13 and 14D Changes

Ms. Terri Esterly, PJM, reviewed the proposed updates regarding clarification of the reporting, netting and operational requirements of Non-Retail BTMG in Manual 13: Emergency Operations and Manual 14D: Generator Operational Requirements. The Operating Committee **endorsed** these updates by acclamation with 0 objections and 0 abstentions.

Ms. Esterly also provided a status update regarding data collection for non-retail behind the meter generation resources. Ms. Esterly encouraged stakeholders who have questions regarding submitting data to contact PJM. PJM will provide updates regarding the status of data submissions at future OC meetings.

Information Only

- The PJM Manual 03 Attachment E Automatic Sectionalizing Schemes Pending Approval and Recent Changes document has been posted as an Information Only item to the August 6 OC meeting website.
- 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 August 6 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.

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
PJM Energization of New Equipment/Cut-In Process	8/6/2019	https://www.pjm.com/-/media/committees- groups/committees/oc/20190806/20190806- item-13-pjm-cut-in-process-refresh.ashx

Future Meeting Dates

September 10, 2019	9:00 a.m.	PJM Interconnection - Conference and Training Center
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

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
Benchek	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
Rumsey	Amanda	PPL Electric Utilities Corp. dba PPL Utilities	Transmission Owner
Smith	Christen	RTO Insider	Not Applicable
Sweeney	Rory	GT Power Group	Not Applicable

In Attendance (Via Conference Call)

Last Name	First Name	Company	Sector
Barker	Jason	Exelon Business Services Company, LLC.	Generation Owner
Brodbeck	John	EDP Renewables North America, LLC	Other Supplier
Capra	Carlo	ITC Interconnection LLC	Other Supplier
Carmean	Greg	OPSI	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
Durinsky	Mike	FirstEnergy Solutions Corp.	Transmission Owner
Filomena	Guy	Customized Energy Solutions, Ltd.	Not Applicable
Gagen	Rod	Dominion Virginia Power	Not Applicable





Garza	Mark	Jersey Central Power & Light Company	Transmission Owner
Garnett	Bryan	Duke Energy Ohio, Inc.	Transmission Owner
Gates	Terry	Appalachian Power Company	Transmission Owner
Gebolys	Debbie	The Public Utilities Commission of Ohio	Not Applicable
George	Brian	Environmental Defense Fund	Not Applicable
Gilani	Rehan	ConEdison Energy, Inc.	Other Supplier
Grear	Mark	Exelon Generation Co., LLC	Generation Owner
Guntle	Vince	UGI Development Company	Generation Owner
Hammack	Matthew	PPL Web	Transmission Owner
Hanebuth	Michele	Consolidated Edison Company of NY. Inc.	Transmission Owner
Hastings	David	Market Interconnection LLC.	Not Applicable
Helms	Joe	Rainbow Energy Marketing Corporation	Other Supplier
Herbert	Michael	Delorean Power	Not Applicable
Horning	Lynn Marie	Customized Energy Solutions Ltd.	Not Applicable
Hunter	Andy	FirstEnergy Solutions Corp.	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
Kilgallen	Kevin	Avangrid Renewables LLC	Generation Owner
Kirk	Ryan	Appalachian Power Company	Transmission Owner
Krawczyk	Leslie	Reliability First	Not Applicable
Lawson	Ryen	Dominion Virginia Power	Not Applicable





Leisure	Jill	Keystone Projects	Not Applicable
Libbos	Robin	FirstEnergy Solutions Corp.	Transmission Owner
Markiewicz	Cindy	FirstEnergy Solutions Corp.	Transmission Owner
McGuire	Bob	Dominion Virginia Power	Transmission Owner
Merten	Laura	Holocene Clean Energy	Not Applicable
Norton	Chris	American Municipal Power, Inc.	Electric Distributor
O'Connell	Robert	PPGI Fund A/B Development, LLC	Generation Owner
Ondayko	Brock	Appalachian Power Company	Transmission Owner
Pakela	Gregory	DTE Energy Trading, Inc.	Other Supplier
Philips	Marji	Direct Energy Business, LLC.	Other Supplier
Poulos	Greg	CAPS	Not Applicable
Robinson	Becky	Vistra Energy	Generation Owner
Sasser	Jonathan	Customized Energy Solutions, Ltd.	Not Applicable
Schloendorn	Ron	PECO Energy	Transmission Owner
Sillin	John	The Federal Energy Regulatory Commission	Not Applicable
Singer	Chad	Trane Grid Services, LLC.	Other Supplier
Squibb	William	Ohio Valley Electric Corporation	Transmission Owner
Sturgeon	John	Duke Energy Carolinas LLC.	Other Supplier
Svenson	Heather	Public Service Electric and Gas Company	Transmission Owner
Whitehead	Jeffrey	GT Power Group	Not Applicable
Wilson	James	Wilson Energy Economics	Not Applicable
York	Amy	McNees Wallace & Nurick LLC	Not Applicable

PJM Attendees

Last Name	First Name	Company	Sector
Anders	David	PJM Interconnection, LLC	Not Applicable





Bielak	Donnie	PJM Interconnection, LLC	Not Applicable
Brown	Rich	PJM Interconnection, LLC	Not Applicable
Carroll	Rebecca	PJM Interconnection, LLC	Not Applicable
Caven	Augustine	PJM Interconnection, LLC	Not Applicable
Ciabattoni	Joseph	PJM Interconnection, LLC	Not Applicable
Сгоор	Danielle	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
Genuario	Gabby	PJM Interconnection, LLC	Not Applicable
Greening	Michele	PJM Interconnection, LLC	Not Applicable
Hatch	Kevin	PJM Interconnection, LLC	Not Applicable
Hauske	Tom	PJM Interconnection, LLC	Not Applicable
Herel	Suzanne	PJM Interconnection, LLC	Not Applicable
Jani	Alpa	PJM Interconnection, LLC	Not Applicable
Kimmel	David	PJM Interconnection, LLC	Not Applicable
Lee	Ray	PJM Interconnection, LLC	Not Applicable
Limbert	Vanessa	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
Phillips	Darlene	PJM Interconnection, LLC	Not Applicable
Pilong	Chris	PJM Interconnection, LLC	Not Applicable





Pincus	Steve	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
Tam	Simon	PJM Interconnection, LLC	Not Applicable
Thomas	Henry	PJM Interconnection, LLC	Not Applicable
Williams	Stan	PJM Interconnection, LLC	Not Applicable

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