



Operating Committee
PJM Conference & Training Center, Audubon, PA
October 10, 2017
9:00 a.m. – 12:00 p.m. EPT

Administration

- The October 10 OC agenda was approved with a minor wording change to Item 07 which was changed from "calculation" to "value".
- 2. Draft Minutes of the September 12, 2017 OC meeting were reviewed and approved.
- 3. The OC Work Plan was reviewed. Concerns at the Stakeholder Process Forum in September were raised about concurrent meetings and the impact on the stakeholder's ability to cover all of the meetings. A request was made for each of the PJM standing committees to review work plans of all standing committees and associated groups to coordinate meetings and potentially scale back on the timelines.

Review of Operations

4. Review of Operational Events

Mr. Chris Pilong, PJM, reviewed PJM operations since the last OC Meeting. There were 5 High Voltage Action events occurring between September 2 and September 10. There was 1 Disturbance Control Standard (DCS) event, 3 Synchronous Reserve events and 2 Shared Reserve events. There were 2 Hot Weather Alert events called during the month of September, occurring between September 25 and September 26 due to un-seasonally high temperatures. There were 3 Geomagnetic Disturbance Warning events of intensity K-7 (strong) between September 7 and September 28 but no impacts to PJM. There were 2 Minimum Generation Alert events between September 2 and September 4.

5. Review of Operating Metrics

Mr. Joe Ciabattoni, PJM, reviewed the PJM Operating Metrics slides updated with September metrics data. Metrics included PJM's load forecast error, BAAL performance, transmission / generation outage statistics, and Perfect Dispatch performance.

Endorsements / Approvals

6. Operating Agreement Revisions

Mr. Vince Stefanowicz, PJM, reviewed proposed Operating Agreement revisions for PJM sharing of restoration planning generator data with Transmission Owners. A discussion was held confirming the limits of data that the generators would be required to share with the Transmission Owners. The Operating Committee endorsed these changes with 0 objections and 0 abstentions.

7. Winter Weekly Reserve Target (WWRT) Value Changes

Mr. Patricio Rocha - Garrido, PJM, reviewed the proposed changes to the Winter Weekly Reserve Target (WWRT) values. The Operating Committee endorsed these changes with 0 objections and 0 abstentions.

PJM©2017





First Readings

8. Manual 03 Changes

Mr. Yuri Smolanitsky, PJM, reviewed proposed changes to *Manual 03: Transmission Operations*. The Operating Committee will be asked to endorse these changes at the next OC meeting.

9. Manual 10 Changes

Mr. Vince Stefanowicz, PJM, reviewed proposed changes to *Manual 10: Pre-Scheduling Operations*. The Operating Committee will be asked to endorse these changes at the next OC meeting.

10. 2018 Day Ahead Scheduling Reserve (DASR) Requirement

Mr. Tom Hauske, PJM, reviewed the proposed changes to the 2018 Day Ahead Scheduling Reserve (DASR) requirement. It was discussed that the Load Forecast Error (LFE) and Forced Outage rates are lower for 2017. As a result, the DASR % for 2018 will be 5.29% compared to 5.48% for 2017. The Operating Committee will be asked to endorse these changes at the next OC meeting.

11. Manual 13 Changes

Mr. Chris Pilong, PJM, reviewed proposed changes to *Manual 13: Emergency Operations*. A discussion was held regarding the potential implications of lowering the 90 degree temperature requirement for a Hot Weather Alert. **The Operating Committee will be asked to endorse these changes at the next OC meeting**.

12. Manual 14D Changes

Mr. Vince Stefanowicz, PJM, reviewed proposed changes to *Manual 14D: Generator Operational Requirements*. The Operating Committee will be asked to endorse these changes at the next OC meeting.

OC Subcommittee / Task Force Updates

13. System Operations Subcommittee (SOS)

Mr. Chris Pilong, PJM, provided a summary of the most recent SOS meeting.

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

Mr. Glen Boyle, PJM, provided an update on the Primary Frequency Response Sr. Task Force (PFRSTF).

Capacity Performance

15. Unit Specific Parameter Updates

Ms. Alpa Jani, PJM, provided an update on the Unit Specific Parameters.

15a. Performance Assessment Hour Communications Over ICCP Project

Ms. Alpa Jani, PJM, provided an informational update on the Performance Assessment Hour Communications Over ICCP project.





Tool and Informational Updates

16. System Resilience

Mr. Dave Souder, PJM, provided an update on PJM's system resilience efforts related to operationalizing gas pipeline contingencies. A discussion was held regarding the specific conditions that would activate gas pipeline contingencies. Also, PJM may create operating procedures as a result of a decision tree process to evaluate gas infrastructure redundancies, including dual-fuel capabilities. There will be a special education session after the November OC meeting.

17. Regulation Update

Ms. Danielle Croop, PJM, provided an update on Regulation Performance and reviewed the regulation operation metric scorecard. A discussion was held regarding hours of regulation underutilization. Also discussed was the ratio of Reg A to Reg D regulation and correlating regulation performance to BAAL and CPS2 values.

18. 2017 Summer Operations Review

Mr. Chris Pilong, PJM, provided a review of 2017 Summer Operations.

19. September 21 Shortage Pricing Event Review

Mr. Chris Pilong, PJM, provided a review of the September 21 Shortage Pricing Event. A discussion was held regarding the impact of MISO non-firm exports on the event.

20. Winter Preparations

Mr. Vince Stefanowicz, PJM, provided a preview of winter preparations.

21. NERC and Regional Coordination Update

Mr. Mark Kuras, PJM, provided an update on NERC, SERC and RFC standards, and other pertinent regulatory and compliance information, and solicited feedback from the members on N&RC efforts.

22. Ohio Valley Electric Corporation (OVEC) Integration Proposal

Mr. Scott Cunningham, OVEC, provided a review of the OVEC integration proposal.

23. Pricing Interface Update

There were no newly created pricing interfaces.

Action Items

Future Meeting Dates

November 7, 2017	9:00 a.m.	PJM Interconnection - Conference and Training Center
December 12, 2017	9:00 a.m.	PJM Interconnection - Conference and Training Center
January 9, 2018	9:00 a.m.	PJM Interconnection - Conference and Training Center
February 6, 2018	9:00 a.m.	PJM Interconnection - Conference and Training Center

Author: Don Wallin





In Attendance (In Person)

Last Name	First Name	Company	Sector
Seiler	Ken	PJM Interconnection, LLC	Not Applicable
(Chair)			
Wallin	Don	PJM Interconnection, LLC	Not Applicable
(Secretary)			
Benchek	Jim	First Energy Solutions	Transmission Owner
Bleweis	Bruce	DC Energy LLC	Other Supplier
Brodbeck	John	EDP Renewables	Other Supplier
Fitch	Neal	NRG Power Marketing LLC	Generation Owner
Foladare	Ken	Tangibl Group	Not Applicable
Ford	Adrien	Old Dominion Electric Cooperative	Electric Distributor
Greiner	Gary	PSEG Energy Resources and Trade LLC	Other Supplier
Haas	Howard	Monitoring Analytics, LLC	Not Applicable
Horstmann	John	Dayton Power & Light Company	Transmission Owner
Johnson	Carl	Customized Energy Solutions, Ltd.*	Not Applicable
Kogut	George	New York Power Authority	Other Supplier
Lowe	Connie	Dominion Virginia Power	Not Applicable
Midgley	Sharon	Exelon Business Services	Transmission Owner
O'Connell	Robert	PPGI Fund A/B Development, LLC	Generation Owner
Pratzon	David	GT Power Group	Not Applicable
Sweeney	Rory	RTO Insider	Not Applicable
Trayers	Barry	Citigroup Energy Inc.	Other Supplier
Whitehead	Jeffrey	GT Power Group	Not Applicable

PJM[©]2017





In Attendance (Via Conference Call)

Last Name	First Name	Company	Sector
Ainspan	Malcolm	Energy Curtailment Specialists, Inc.	Other Supplier
Barker	Jason	Exelon Business Services	Transmission Owner
Blackshear	David	Gridforce Energy	Other Supplier
Bolan	Martin	First Energy Solutions	Transmission Owner
Bonner	Charles	Dominion Virginia Power	Not Applicable
Campbell	Bruce	Energy Connect, Inc.	Other Supplier
Carmean	Gregory	OPSI	Not Applicable
Chen	Jennifer	Natural Resources Defense Council	Not Applicable
Cocco	Michael	Old Dominion Electric Cooperative	Electric Distributor
Сох	Edward	Appalachian Power Company	Transmission Owner
Dasher	Brett	Energy Authority, Inc. (The)	Other Supplier
Davis	Becky	Talen Energy Marketing, LLC	Generation Owner
Davis	James	Dominion Energy Marketing, Inc.	Generation Owner
DeGiusto	Vince	UGI Development Company	Generation Owner
DeLosa	Joe	Delaware Public Service Commission	Not Applicable
Domian	Christin	Mitsubishi Electric Power Products Inc.	Not Applicable
Engelmann	Alan	Commonwealth Edison Company	Transmission Owner
Farber	John	Delaware Public Service Commission	Not Applicable
Filomena	Guy	Customized Energy Solutions, Ltd.	Not Applicable
Frederickson	Joe	Public Service Electric & Gas	Transmission Owner
Gahimer	Mike	IN Office of Utility Consumer Counselor	End User Customer





Garavaglia	John	Commonwealth Edison Company	Transmission Owner
Gebolys	Debbie	Public Utilities Commission of Ohio (The)	Not Applicable
Gilani	Rehan	ConEdison Energy, Inc.	Other Supplier
Grear	Mark	Constellation Energy	Generation Owner
Guntle	Vince	UGI Development Company	Generation Owner
Hanebuth	Michele	Consolidated Edison Company of NY, Inc.	Transmission Owner
Hoatson	Tom	Riverside Generating, LLC	Other Supplier
Hopkins	Sandra	Dominion Virginia Power	Not Applicable
Janicki	Diane	Boston Energy Trading and Marketing LLC	Generation Owner
Jardot	Gina	Essential Power Rock Springs, LLC	Transmission Owner
Kauffman	Brian	NRG Curtailment Solutions	Other Supplier
Kazerooni	Hamid	Talen Energy Marketing, LLC	Generation Owner
Keeney	Jerry	Dynegy Marketing & Trade, LLC	Generation Owner
Kelly	Stephen	Brookfield Energy Marketing LP	Other Supplier
Kinser	Cynthia	Tennessee Department of Agriculture	Not Applicable
Krawczyk	Leslie	Reliability First Corporation	Not Applicable
Leasure	Jill	Keystone Projects	Not Applicable
Lumbrazo	Laura	Rockland Electric Company	Transmission Owner
Ma	Alex	Invenergy, LLC	Generation Owner
Mabry	David	McNees Wallace & Nurick LLC	Not Applicable
Mack	Amanda	NextEra Energy Power Marketing, LLC	Generation Owner
Mahler	David	Duquesne Light Company	Transmission Owner
Markiewicz	Cindy	Allegheny Power	Transmission Owner





Marton	David	First Energy Solutions Corp.	Transmission Owner
McAlister	Lisa	American Municipal Power, Inc.	Electric Distributor
Norton	Chris	American Municipal Power, Inc.	Electric Distributor
O'Connell	Bob	PPGI Fund A/B Development, LLC	Generation Owner
O'Leary	Chris	PSEG Energy Resources and Trade LLC	Transmission Owner
Ondayko	Brock	AEP Energy Supply	Generation Owner
Pakela	Greg	DTE Energy Trading, Inc.	Other Supplier
Patten	Kevin	AEP Energy, Inc.	Other Supplier
Peebles	Andy	Saracen Energy East LP	Other Supplier
Phillips	Marjorie	Direct Energy Business, LLC.	Other Supplier
Poulos	Greg	CAPS	Not Applicable
Price	Mark	DC Energy Mid-Atlantic, LLC.	Other Supplier
Price	Ruth	Division of the Public Advocate of the State of Delaware	End User Customer
Rohrbach	John	Southern Maryland Electric Cooperative	Electric Distributor
Rothey	Kristin	American Municipal Power, Inc.	Electric Distributor
Ruck	Andrew	PSEG Energy Resources and Trade LLC	Other Supplier
Runowski	Brian	Commonwealth Edison Company	Transmission Owner
Sasser	Jonathan	Customized Energy Solutions, Ltd.*	Not Applicable
Sauriol	Dennis	AEP Ohio Transmission Company, Inc.	Transmission Owner
Schloendorn	Ronald	PECO Energy Company	Transmission Owner
Skumanich	William	PPL Electric Utilities Corp. dba PPL Utilities	Transmission Owner





Stern	Alexander	Public Service Electric & Gas Company	Transmission Owner
Tangirala	Subha	ABB	Not Applicable
Tatum	Edward	American Municipal Power	Electric Distributor
Tsao	Stephanie	S&P Global Market Intelligence	Not Applicable
Vayda	Brian	Borough of Park Ridge, NJ.	Electric Distributor
Vitiello	Jacqueline	Dominion Energy Marketing, Inc.	Generation Owner
Wharton	Ronald	Public Service Electric & Gas Company	Transmission Owner
White	Doug	North Carolina Electric	Electric Distributor
Wilson	James	Wilson Energy Economics	Not Applicable
Yu	Joel	Rockland Electric Company	Transmission Owner

PJM Attendees

Last Name	First Name	Company	Sector
Anders	Dave	PJM Interconnection, LLC	Not Applicable
Bennett	Daniel	PJM Interconnection, LLC	Not Applicable
Bennett	Stephen	PJM Interconnection, LLC	Not Applicable
Bielak	Donnie	PJM Interconnection, LLC	Not Applicable
Boyle	Glen	PJM Interconnection, LLC	Not Applicable
Ciabattoni	Joe	PJM Interconnection, LLC	Not Applicable
Croop	Danielle	PJM Interconnection, LLC	Not Applicable
Driscoll	Mary Ellen	PJM Interconnection, LLC	Not Applicable
Falin	Tom	PJM Interconnection, LLC	Not Applicable
Fitzpatrick	Brian	PJM Interconnection, LLC	Not Applicable
Hauske	Thomas	PJM Interconnection, LLC	Not Applicable



ρjm		Draft Minutes		3
Heimbach	Mark	PJM Interconnection, LLC	Not Applicable	

Heimbach	Mark	PJM Interconnection, LLC	Not Applicable
Hsia	Eric	PJM Interconnection, LLC	Not Applicable
Jani	Alpa	PJM Interconnection, LLC	Not Applicable
Kuras	Mark	PJM Interconnection, LLC	Not Applicable
Manion	Evelyn	PJM Interconnection, LLC	Not Applicable
Lee	Lori Murphy	PJM Interconnection, LLC	Not Applicable
Lee	Ray	PJM Interconnection LLC	Not Applicable
Phillips	Darlene	PJM Interconnection, LLC	Not Applicable
Pilong	Chris	PJM Interconnection, LLC	Not Applicable
Rocha-Garrido	Patricio	PJM Interconnection, LLC	Not Applicable
Smolanitsky	Yuri	PJM Interconnection, LLC	Not Applicable
Souder	Dave	PJM Interconnection, LLC	Not Applicable
Stefanowicz	Vince	PJM Interconnection, LLC	Not Applicable
Tam	Simon	PJM Interconnection, LLC	Not Applicable
Tutino	Joseph	PJM Interconnection, LLC	Not Applicable
Ward	Mike	PJM Interconnection, LLC	Not Applicable

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.

PJM©2017 9





On the Phone Dial



Mute / Unmute

Linking Teleconference Connection to WebEx

To link your teleconference connection (audio presence) to your WebEx presence, please dial *29 and enter your Personal Identification Number. Once you are logged in to the WebEx, this PIN can be found under the "Meeting Info" tab of your WebEx window.

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.