

**Market Implementation Committee**  
**PJM Conference & Training Center, Audubon, PA**  
**July 10, 2019**  
**9:00 a.m. – 4:00 p.m. EPT**

## Administration

Ms. Bhavana Keshavamurthy and Ms. Chantal Hendrzak provided announcements; reviewed the Antitrust, Code of Conduct, Public Meetings/Media Participation and the WebEx Participant Identification Requirement.

Ms. Susan Riley, PJM, addressed the stakeholders and stated that she is looking forward to working closely with PJM stakeholders and staff in her role as interim CEO.

Ms. Hendrzak announced that she will transition her role as Facilitator of the Market Implementation Committee (MIC) to Ms. Lisa Morelli effective August 2019.

The Committee approved the draft minutes from the June 12, 2019 Market Implementation Committee meeting with **0 objections and 0 abstentions**.

- A. Mr. Stan Williams, PJM, provided an update on the recent FERC Order EL08-14 related to Marginal Line Loss. Additional updates including detailed plans on actual settlement action will be shared by PJM at future stakeholder meetings.
- B. Mr. Pete Langbein, PJM, provided an update on the recent FERC order ER19-1012-000 and ER19-1012-001 related to Price Responsive Demand.

## Endorsements/Approvals

### 2. Periodic Review of Manual 18

Ms. Terri Esterly, PJM, presented proposed revisions to Manual 18: PJM Capacity Market as part of the periodic review. The revisions address administrative updates, deletion of outdated provisions and clarifications of existing provisions. The revisions also include conforming revisions due to FERC Orders. **The committee endorsed the manual revisions with 0 objections and 0 abstentions.**

### 3. Periodic Review of Manual 28

Mr. Ray Fernandez, PJM, presented revisions to Manual 28: Operating Agreement Accounting as part of the periodic review. The revisions include the process to handle the case of unavailable state estimator loss data in calculating transmission loss de-rating factors and an update to credit calculations for Resources providing Reactive Services.

**The committee endorsed the manual revisions with 0 objections and 0 abstentions.**

### 4. Manual 11, 15, and 18 revisions for Electric Storage Participation – FERC Order 841

- A. Ms. Laura Walter, PJM, provided a brief background on Order 841, and reviewed changes to Manual 11 – Energy & Ancillary Services Market Operations & Manual 18 – PJM Capacity Market, related to the FERC Order 841 compliance filing.

- B. Ms. Danielle Croop, PJM, provided a review of Manual 15 – Cost Development Guidelines changes related to cost offers for batteries and flywheels.

**The committee endorsed the manual revisions with 0 objections and 0 abstentions.**

[Issue Tracking: Electric Storage Participation FERC Order 841](#)

## First Readings

5. **Manual 27 and 28 revisions for Electric Storage Participation – FERC Order 841**

Mr. Andrew Levitt, PJM, provided a review of Manual 27: Open Access Transmission Tariff Accounting and Manual 28: Operating Agreement Accounting revisions associated with settlements changes related to FERC Order 841 compliance filing.

[Issue Tracking: Electric Storage Participation FERC Order 841](#)

6. **Modeling Units with Stability Limitations – Problem Statement & Issue Charge**

Mr. Robert O’Connell, Panda Power Funds, provided a first read of a problem statement and issue charge related to modeling units with stability limitations.

7. **Opportunity Cost Calculator**

Mr. Glen Boyle, PJM, provided a summary of the work done by the MIC Special Sessions: Opportunity Cost Calculator. Mr. Robert O’Connell, Panda Power Funds, provided a summary of the three proposals.

[Issue Tracking: Opportunity Cost Calculator](#)

8. **Fuel Cost Policy**

Ms. Bhavana Keshavamurthy, PJM, provided a summary of the work done by the MIC Special Sessions: Fuel Cost Policy.

A. Mr. Joel Luna, Monitoring Analytics, presented the IMM proposal.

B. Mr. Glen Boyle, PJM, presented the PJM proposal.

C. Ms. Adrien Ford, Old Dominion Electric Cooperative and Mr. Nathan Rushing, CPV Power Holdings, presented the Joint Stakeholder proposal.

[Issue Tracking: Fuel Cost Policy](#)

9. **Gas Contingency Cost Recovery**

Mr. Thomas DeVita, PJM, provided an overview of draft Tariff revisions associated with gas contingencies cost recovery. Stakeholders requested additional time to review the tariff revisions and also requested an additional meeting to continue discussions on this issue. An additional MIC Special Session has been scheduled for July 19, 2019 to continue discussion on this topic. This agenda item will be presented as a first read at the August MIC. Members are encouraged to review the posted Tariff revisions and provide comments to: [Thomas.DeVita@pjm.com](mailto:Thomas.DeVita@pjm.com).

10. **Manual 11 Updates**

Mr. Michael Olaleye, PJM, provided an overview of clarifications being added to Manual 11: Energy & Ancillary Services associated with regulation historical performance scores and reserve requirements.

## Working Issues

### 11. Fuel Requirements for Black Start Resources

Ms. Janell Fabiano, PJM, provided a status update on the Fuel Requirements for Black Start Resources issue.

[Issue Tracking: Fuel Requirements for Black Start Resources](#)

### 12. Fast Start Pricing Compliance Filing Details

- A. Mr. Vijay Shah, PJM, reviewed the offer verification impacts of the fast start pricing implementation.
- B. Mr. Ray Fernandez, PJM, reviewed the settlement impacts of fast start pricing implementation.

### 13. Five Minute Dispatch and Pricing

- A. Mr. Siva Josyula, Monitoring Analytics, presented education on RT SCED execution and solution timeline, statistics on some of the inputs used and approval rate of RT SCED cases.
- B. Mr. Aaron Baizman, PJM, presented education on Real Time Security Constrained Economic Dispatch (RT SCED) engine.

**Note:** Work on the Interregional Incremental Auction Revenue Rights issue will resume at the August Market Implementation Committee.

[Issue Tracking: Interregional Incremental Auction Revenue Rights](#)

## Informational Section

### Credit Subcommittee (CS)

Meeting materials will be posted to the [CS website](#).

### Demand Response Subcommittee (DRS)

Meeting materials will be posted to the [DRS web site](#).

### Intermittent Resources Subcommittee (IRS)

Meeting materials will be posted to the [IRS web site](#).

### Interregional Coordination Update

Materials are posted as informational only.

### Market Settlements Subcommittee (MSS)

Meeting materials are posted to the [MSS web site](#).

### Report on Market Operations

The Report on Market Operations will be reviewed during the [MC Webinar](#).

## Future Meeting Dates

August 7, 2019	9:00 a.m.	PJM Conference & Training Center/ WebEx
September 11, 2019	9:00 a.m.	PJM Conference & Training Center/ WebEx
October 16, 2019	9:00 a.m.	PJM Conference & Training Center/ WebEx

November 13, 2019  
December 11, 2019

9:00 a.m.  
9:00 a.m.

PJM Conference & Training Center/ WebEx  
PJM Conference & Training Center/ WebEx

Author: Bhavana Keshavamurthy

## In-Person Meeting Attendees

<b>Names</b>	<b>Company Name</b>	<b>Sector</b>
Hendrzak, Chantal (Chair)	PJM Interconnection, LLC	Not Applicable
Keshavamurthy, Bhavana (Secretary)	PJM Interconnection, LLC	Not Applicable
Anders, David	PJM Interconnection, LLC	Not Applicable
Antonelli, Diane	PJM Interconnection, LLC	Not Applicable
Baizman, Aaron	PJM Interconnection, LLC	Not Applicable
Benchek, Jim	American Transmission Systems, Inc.	Transmission Owner
Bleiweis, Bruce	DC Energy LLC	Other Supplier
Borgatti, Michael	Gabel and Associates	Not Applicable
Boyle, Glen	PJM Interconnection, LLC	Not Applicable
Brodbeck, John	EDP Renewables North America, LLC	Other Supplier
Bruno, Patrick	PJM Interconnection, LLC	Not Applicable
Canchi, Devendra	Monitoring Analytics, LLC	Not Applicable
Canter, David	Appalachian Power Company	Transmission Owner
Carroll, Rebecca	PJM Interconnection, LLC	Not Applicable
Ciabattoni, Joe	PJM Interconnection, LLC	Not Applicable
Croop, Danielle	PJM Interconnection, LLC	Not Applicable
D'Alessandris, Lou	FirstEnergy Solutions Corp.	Transmission Owner
D'Antonio, Phil	PJM Interconnection, LLC	Not Applicable
DeVita, Thomas	PJM Interconnection, LLC	Not Applicable
Fabiano, Janell	PJM Interconnection, LLC	Not Applicable
Fernandez, Ray	PJM Interconnection, LLC	Not Applicable
Filomena, Guy	Customized Energy Solutions, Ltd.	Not Applicable
Fitch, Neal	NRG Power Marketing LLC	Generation Owner
Fitzpatrick, Brian	PJM Interconnection, LLC	Not Applicable
Foldare, Kenneth	Tangible	Not Applicable
Ford, Adrien	Old Dominion Electric Cooperative	Electric Distributor
Fuess, Christian	PBF Power Marketing	Generation Owner
Genuario, Gabrielle	PJM Interconnection, LLC	Not Applicable
George, Brian	FERC	Not Applicable
Greening, Michele	PJM Interconnection, LLC	Transmission Owner
Greiner, Gary	PSEG Energy Resources and Trade LLC	Other Supplier
Hauske, Thomas	PJM Interconnection, LLC	Not Applicable
Hoatson, Tom	LS Power	Not Applicable
Holter, Natasha	PJM Interconnection, LLC	Not Applicable
Hudis, Gabriella	Jersey Green Energy LLC	Other Supplier
Johnson, Carl	Customized Energy Solutions, Ltd.*	Not Applicable
Josyula, Siva	Monitoring Analytics, LLC	Not Applicable
Kauffman, Brian	EnerNOC, Inc.	Other Supplier
Keech, Adam	PJM Interconnection, LLC	Not Applicable
Kenney, Susan	PJM Interconnection, LLC	Not Applicable
Kogut, George	New York Power Authority	Other Supplier
Levitt, Andrew	PJM Interconnection, LLC	Not Applicable
Lieberman, Steve	American Municipal Power, Inc.	Electric Distributor
Lowe, Connie	Dominion Virginia Power	Not Applicable
Lu, Chenchao	PJM Interconnection, LLC	Not Applicable
Luna, Joel	Monitoring Analytics, LLC	Not Applicable
Mabry, David	McNees Wallace & Nurick LLC	Not Applicable

Marcino, Angelo	PJM Interconnection, LLC	Not Applicable
Marzewski, Skyler	Monitoring Analytics, LLC	Not Applicable
Midgley, Sharon	Exelon Business Services Company, LLC	Transmission Owner
Morelli, Lisa	PJM Interconnection, LLC	Not Applicable
Nix, Emma	PJM Interconnection, LLC	Not Applicable
O'Connell, Robert	PPGI Fund A/B Development, LLC	Generation Owner
Olaleye, Michael	PJM Interconnection, LLC	Not Applicable
Philips, Marjorie	Direct Energy Business, LLC	Other Supplier
Scarpignato, David	Calpine Energy Services, L.P	Generation Owner
Schweizer, David	PJM Interconnection, LLC	Not Applicable
Shah, Vijay	PJM Interconnection, LLC	Not Applicable
Smith, Christen	RTO Insider	Not Applicable
Sturgeon, John	Duke Energy Carolinas, LLC	Other Supplier
Sweeney, Rory	GT Power Group	Not Applicable
Trayers, Barry	Citigroup Energy, Inc.	Other Supplier
Weathers, Brian	PJM Interconnection, LLC	Not Applicable
Whitehead, Jeffrey	GT Power Group	Not Applicable
Williams, Stanley	PJM Interconnection, LLC	Not Applicable

## Webex Meeting Attendees

<b>Names</b>	<b>Company Name</b>	<b>Sector</b>
Ainspan, Malcolm	Energy Curtailment Specialists, Inc.	Other Supplier
Bickerstaff, Dean	Hartree Partners, LLC	Other Supplier
Budney, Dave	PJM Interconnection, LLC	Not Applicable
Campbell, Bruce	EnergyConnect, Inc.	Other Supplier
Carmean, Greg	OPSI	Not Applicable
Chandler, Kent	Public Utilities Commission of Kentucky	Not Applicable
Chintapalli, Raj	BP Energy Company	Power Marketer
Cocco, Michael	Old Dominion Electric Cooperative	Electric Distributor
Coffey, Ceceilia	FERC	Not Applicable
Crystle, Gil	UGI Development Company	Transmission Owner
Dasher, Brett	Energy Authority, Inc. (The)	Other Supplier
Daily, Mike	Northern Virginia Electric Cooperative	Electric Distributor
Davis, Elizabeth	PJM Interconnection, LLC	Not Applicable
DePillo, Ray	PSEG Energy Resources and Trade LLC	Transmission Owner
Dillon, Matt	UGI Development Company	Generation Owner
Dixon, Chad	Customized Energy Solutions. Ltd	Not Applicable
Duensing, Allison	Saracen Energy	Other Supplier
Durinsky, Mike	FirstEnergy Solutions Corp.	Transmission Owner
Esterly, Theresa	PJM Interconnection, LLC	Not Applicable
Feller, John	PPL Electric Utilities Corp. dba PPL Utilities	Transmission Owner
Gagen, Rod	Dominion Energy Generation Marketing, Inc.	Generation Owner
Gates, Terry	Appalachian Power Company	Transmission Owner
Harmon, Mike	Union Electric Company d/b/a Ameren Missouri	Other Supplier
Hastings, David	Market Interconnection LLC	Not Applicable
Heisey, Bradley	Wolf Hills Energy, LLC	Generation Owner
Herel, Suzanne	PJM Interconnection, LLC	Not Applicable
Hsia, Eric	PJM Interconnection, LLC	Not Applicable
Janicki, Diane	Boston Energy Trading & Marketing, LLC	Generation Owner
Keenan, Mathew	Elwood Energy	Generation Owner
Kozhuharov, Dimitar	Delaware Municipal Electric Corporation, Inc.	Electric Distributor
LaRocque, Matthew	PJM Interconnection, LLC	Not Applicable
Lejcar, Jamie	Allegheny Electric Cooperative, Inc.	Electric Distributor
Liang-Nicol, Cecilia	Monongahela Power Company d/b/a Allegheny Power	Transmission Owner

Libbos, Robin  
Long, Sharon  
Lowe, Connie  
Mae Velasco, Cheryl  
Matsuzak, Alex  
Mooney, Jeff  
Norton, Chris  
O'Boyle, Brian  
Ondayko, Brock  
O'Neill, Jack  
Pakela, Gregory  
Pelletier, Eveline  
Peoples, John  
Perera, Asanga  
Poulos, Greg  
Price, Ruth  
Rajan , Abhijit  
Robinson, Becky  
Robson, Matt  
Rumsey, Amanda  
Rushing, Nathan  
Sasser, Jonathan  
Schmatz, Peter  
Schmitt, Jeff  
Schuyler, Ken  
Sinclair, Brian  
Squibb, Bill  
Tangirala, Subha  
Toomey, Megan  
Vayda, Brian  
Ward, Michael  
Warshel, Kim

FirstEnergy Solutions Corp.  
FERC  
Virginia Electric & Power Company  
PJM Interconnection, LLC  
UGI Energy Services  
FirstEnergy Solutions Corp.  
American Municipal Power, Inc.  
Consolidated Edison Solutions, Inc.  
Appalachian Power Company  
PJM Interconnection, LLC  
DTE Energy Trading, Inc.  
Hydro-Quebec  
Duquesne Light Company  
PJM Interconnection, LLC  
CAPS  
Division of the Public Advocate of the State of Delaware  
Dominion Resources  
Vistra Energy  
SESCO Enterprises LLC  
PPL Electric Utilities Corp. dba PPL Utilities  
CPV Power Holdings, LP  
Customized Energy Solutions, Ltd.\*  
PSEG Energy Resources and Trade LLC  
PJM Interconnection, LLC  
PJM Interconnection, LLC  
Boston Energy Trading & Marketing, LLC  
Ohio Valley Electric Corporation  
ABB  
Talen Energy Marketing, LLC  
Borough of Park Ridge, NJ  
PJM Interconnection, LLC  
PJM Interconnection, LLC

Transmission Owner  
Not Applicable  
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Not Applicable  
Other Supplier  
Transmission Owner  
Electric Distributor  
Transmission Owner  
Transmission Owner  
Not Applicable  
Other Supplier  
Not Applicable  
Transmission Owner  
Not Applicable  
Not Applicable  
End User Customer  
Not Applicable  
Not Applicable  
Other Supplier  
Transmission Owner  
Generation Owner  
Not Applicable  
Transmission Owner  
Not Applicable  
Not Applicable  
Other Supplier  
Generation Owner  
Not Applicable  
Generation Owner  
Electric Distributor  
Not Applicable  
Not Applicable