



Market Implementation Committee
PJM Conference & Training Center, Audubon, PA
September 11, 2019
9:00 a.m. – 4:00 p.m. EPT

Administration

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

The Committee approved the draft minutes from the August 7, 2019 Market Implementation Committee (MIC) meeting with **0 objections and 0 abstentions**.

- A. Ms. Keshavamurthy, PJM, reviewed the timeline of the PJM Stakeholder Survey which will be open from Monday, September 30, until Friday, October 11 and noted that PJM will be updating its current stakeholder email communication tool later this year. The survey notifications will be sent using the new tool. Stakeholders are being asked to provide their IT departments the IP address, 13.111.63.217, to ensure members receive stakeholder communications from the new tool. If subscribers are unable to whitelist the IP address, they should check the company spam folder to allow communications from "@lists.pjm.com".
- B. Ms. Morelli, PJM, provided the following updates on open issues at the MIC:
 - i. Education on the Stability Limits in Markets and Operations issue will be deferred to the October MIC due to PJM SME availability for the September MIC.
 - ii. A MIC Special Session: Gas Pipeline Contingencies has been scheduled for September 27, 2019 to continue discussions and solicit feedback from stakeholders. The meeting is open for registration.
 - iii. A MIC Special Session: Five Minute Dispatch and Pricing has been scheduled for October 2, 2019. The meeting is open for registration.
- C. Ms. Keshavamurthy, PJM, provided an update on the MIC Special Session: Fuel Cost Policy. The group will work through the details of the compromise proposal at the MIC Special Session scheduled on September 16, 2019 with the expectation of bringing the proposals for a first read to the October MIC.
- D. Ms. Jennifer Tribulski, PJM, provided an update on the FTR Waiver Order settlement proceedings. PJM and the stakeholders are currently working on a settlement package that is expected to be filed with FERC on October 9, 2019. The parties will schedule a meeting in advance of when the comments are due on this filing to solicit feedback from the stakeholders.





Endorsements/Approvals

2. Opportunity Cost Calculator

- A. Mr. James Davis, Dominion Energy, and Mr. Abhijit Rajan, Dominion Energy, presented a summary of the Panda/Dominion proposal.
- B. Mr. Glen Boyle, PJM, presented a summary of the PJM Proposal.

The committee endorsed the Panda/Dominion proposal with 134(84%) in favor, 26(16%) opposed and 27 abstentions.

The committee endorsed the PJM proposal with 61(51%) in favor, 58(49%) opposed and 59 abstentions.

The committee also preferred the Panda/Dominion proposal over the Status Quo with 158(85%) in favor, 28(15%) opposed and 5 abstentions.

The Panda/Dominion proposal moves to the Markets and Reliability Committee as the primary motion with the PJM proposal as the alternate motion.

Issue Tracking: Opportunity Cost Calculator

3. Load Management Testing Requirements

- A. Mr. Pete Langbein, PJM, provided an overview of the five Load Management Test proposals developed at the Demand Response Subcommittee.
- B. Mr. Bruce Campbell, CPower, and Mr. Dave Mabry, PJM Industrial Customer Coalition, provided an overview of the CSP1 proposal.
- C. Mr. Brian Kaufman, Enel X, provided an overview of the CSP2 proposal.
- D. Mr. Jack O'Neill, PJM, provided an overview of PJM's proposals.

The committee did not endorse the CSP1 proposal with 62(34%) in favor, 122(66%) opposed and 8 abstentions.

The committee endorsed the CSP2 proposal with 95(53%) in favor, 84(47%) opposed and 5 abstentions.

The committee endorsed the PJM1a proposal with 125(75%) in favor, 42(25%) opposed and 29 abstentions.

The committee did not endorse the PJM3 proposal with 28(15%) in favor, 160(85%) opposed and 5 abstentions.

The committee did not endorse the IMM proposal with 46(26%) in favor, 134(74%) opposed and 2 abstentions.

The committee also preferred the PJM1a proposal over the Status Quo with 128(67%) in favor, 62(33%) opposed and 2 abstentions.

The PJM1a proposal moves to the Markets and Reliability Committee as the primary motion with the CSP2 proposal as the alternate motion.

Issue Tracking: Load Management Testing Requirements

First Readings

4. ARR/FTR Market Review

Mr. Howard Haas, Monitoring Analytics, provided a first read of a problem statement and issue charge related to the review of the ARR/FTR Market Construct. Stakeholders provided feedback and requested clarifications be added to clearly define the deliverables listed in the issue charge. Stakeholders also





requested that the expected duration of the work timeline be extended from six months to twelve months. The committee will be asked to vote on a revised issue charge at the October MIC.

Working Items

5. Five Minute Dispatch and Pricing

- A. Ms. Catherine Tyler, Monitoring Analytics, presented education on how other RTOs/ISOs align dispatch and pricing for a given interval.
- B. Mr. Angelo Marcino, PJM, presented education on current PJM alignment of dispatch and pricing for a given interval.

6. Interregional Incremental Auction Revenue Rights

Mr. Brian Chmielewski, PJM, reviewed the Interregional Incremental Auction Revenue Rights (IARR) issue and presented three potential paths forward. Absent any feedback from stakeholders, PJM will recommend status quo. Members are encouraged to review the posted materials and provide additional proposals to the FTRGroup@pjm.com.

Issue Tracking: Interregional Incremental Auction Revenue Rights

Additional Updates

7. FERC Form No. 715 Updates

Ms. Pauline Foley, PJM, provided a high level overview of the recent FERC orders issued on Form 715 transmission projects.

8. 2020 PJM Project Budget

Mr. Jim Snow, PJM, provided an overview of the preliminary 2020 PJM project budget.

9. nGEM Project Update

Mr. Todd Keech, PJM, provided an update on the Next Generation Energy Markets (nGEM) markets software replacement project. PJM will provide periodic updates at the MIC to keep the stakeholders informed of the project's progress.

10. Manual 11 revisions

Mr. Michael Olaleye, PJM, provided an update on changes made to Manual 11: Energy & Ancillary Services associated with regulation historical performance scores based on stakeholder feedback at the August Markets and Reliability Committee (MRC). The MRC will vote on these manual changes at the September MRC.

11. CP Unit Specific Parameter update

Ms. Lauren Strella Wahba, PJM, provided an update on CP Unit Specific Parameters process and the implementation of soak time parameter.

Informational Section

Credit Subcommittee (CS)





Meeting materials will be posted to the <u>CS website</u>.

Demand Response Subcommittee (DRS)

Meeting materials will be posted to the <u>DRS web site</u>.

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

October 16, 2019	9:00 a.m.	PJM Conference & Training Center/ WebEx
November 13, 2019	9:00 a.m.	PJM Conference & Training Center/ WebEx
December 11, 2019	9:00 a.m.	PJM Conference & Training Center/ WebEx

Author: Bhavana Keshavamurthy

In-Person Meeting Attendees

Names Morelli, Lisa (Chair) Keshavamurthy, Bhavana (Secretary)	Company Name PJM Interconnection, LLC PJM Interconnection, LLC	Sector Not Applicable Not Applicable
Baizman, Aaron	PJM Interconnection, LLC	Not Applicable
Benchek, Jim	American Transmission Systems, Inc.	Transmission Owner
Bleiweis, Bruce	DC Energy LLC	Other Supplier
Boyle , Glen	PJM Interconnection, LLC	Not Applicable
Bruno, Patrick	PJM Interconnection, LLC	Not Applicable
Campbell, Bruce	EnergyConnect, Inc.	Other Supplier
Carroll, Rebecca	PJM Interconnection, LLC	Not Applicable
Chmielewski, Brian	PJM Interconnection, LLC	Not Applicable
Ciabattoni, Joe	PJM Interconnection, LLC	Not Applicable
Colbert,Cathleen	NRG Power Marketing LLC	Generation Owner
Croop,Danielle	PJM Interconnection, LLC	Not Applicable
D'Alessandris, Lou	FirstEnergy Solutions Corp.	Transmission Owner
Davis, Elizabeth	PJM Interconnection, LLC	Not Applicable
Davis, Jim	Dominion Energy	Transmission Owner
DeVita, Thomas	PJM Interconnection, LLC	Not Applicable
Fernandez, Ray	PJM Interconnection, LLC	Not Applicable
Filomena, Guy	Customized Energy Solutions, Ltd.	Not Applicable
Foldare, Kenneth	Tangible	Not Applicable





Ford, Adrien
Fuess, Christian
Fuess, James
Giacomoni, Anthony
Greening, Michele
Greiner, Gary
Haas, Howard
Herel, Suzanne
Horger, Tim

Horning, Lynn Marie
Horton, Dana
Hyzinski, Tom
Johnson, Carl
Kauffman, Brian
Keech, Adam
Kogut, George
Langbein, Pete
Lieberman, Steve
Lowe, Connie
Lu, Chenchao
Mabry, David

Marcino, Angelo Marzewski, Skyler Midgley, Sharon Monzon, Stephanie Noonan,Casey Olaleye, Michael Patel, Anita Philips, Darlene

Manno, Dean

Poulos, Greg Powers, Sean Rohrbach, John Sasser, Jonathan Scarpignato, David Sheilds, Jeff Smith, Christen Snow, Jim

Snow, Jim Strella, Lauren Sturgeon, John Suh, Jung Sweeney, Rory Tribulski, Jennifer

Tyler, Catherine Wadsworth, Joseph Whitehead, Jeffrey Old Dominion Electric Cooperative

PBF Power Marketing PBF Power Marketing PJM Interconnection, LLC PJM Interconnection, LLC

PSEG Energy Resources and Trade LLC

Monitoring Analytics, LLC
PJM Interconnection, LLC
PJM Interconnection, LLC
Customized Energy Solutions, Ltd.*
Appalachian Power Company

GT Power Group
Customized Energy Solutions, Ltd.*

EnerNOC, Inc.

PJM Interconnection, LLC New York Power Authority PJM Interconnection, LLC American Municipal Power, Inc. Virginia Electric & Power Company

PJM Interconnection, LLC McNees Wallace & Nurick LLC PJM Interconnection, LLC PJM Interconnection, LLC Monitoring Analytics, LLC

Exelon Business Services Company, LLC

PJM Interconnection, LLC PJM Interconnection, LLC PJM Interconnection, LLC PJM Interconnection, LLC PJM Interconnection, LLC

CAPS Linde, LLC ACES Power

Customized Energy Solutions, Ltd.* Calpine Energy Services, L.P PJM Interconnection, LLC

RTO Insider

PJM Interconnection, LLC PJM Interconnection, LLC Duke Energy Carolinas, LLC Calpine Energy Services, L.P

GT Power Group

PJM Interconnection, LLC Monitoring Analytics, LLC

Vitol Inc.

GT Power Group

Electric Distributor Generation Owner Generation Owner Not Applicable

Transmission Owner
Other Supplier

Not Applicable Not Applicable Not Applicable Not Applicable

Transmission Owner
Not Applicable

Not Applicable Other Supplier Not Applicable

Other Supplier Not Applicable Electric Distributor Transmission Owner

Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable

Not Applicable
Transmission Owner
Not Applicable

Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable

End User Customer Not Applicable Not Applicable Generation Owner

Not Applicable Not Applicable Not Applicable Not Applicable Other Supplier Generation Ow

Generation Owner Not Applicable Not Applicable Not Applicable Other Supplier Not Applicable





Not Applicable

Other Supplier

Not Applicable

Other Supplier

Not Applicable

Not Applicable

Not Applicable

Other Supplier

Not Applicable

Webex Meeting Attendees

Genuario, Gabrielle

Gilani, Rehan

Gorman, Kevin

Grau, Patrick

Guler, Teoman

Hanser, Erik

Harmon, Mike

Hastings, David

Gluck, Jim

Names	Company Name	Sector
Ainspan, Malcolm	Energy Curtailment Specialists, Inc.	Other Supplier
Anders, David	PJM Interconnection, LLC	Not Applicable
Anderson, Jared	SPG Global	Not Applicable
Barker, Jason	Exelon Business Services Company, LLC	Transmission Owner
Bazar, Kevin	PJM Interconnection, LLC	Not Applicable
Beatty, Aron	The Pennsylvania Office of Consumer Advocate	Not Applicable
Bernstein, Matthew	PJM Interconnection, LLC	Not Applicable
Binder, Gerry	SESCO Enterprises LLC	Other Supplier
Brodbeck, John	EDP Renewables North America, LLC	Other Supplier
Brown, Rich	PJM Interconnection, LLC	Not Applicable
Bryson, Mike	PJM Interconnection, LLC	Not Applicable
Burdis,Tim	PJM Interconnection, LLC	Not Applicable
Canchi ,Devendra	Monitoring Analytics, LLC	Not Applicable
Canter, David	Appalachian Power Company	Transmission Owner
Carrier, Ron	Direct Energy Business, LLC	Other Supplier
Catanach, Jim	FirstEnergy Solutions Corp.	Transmission Owner
Chandler, Kent	Public Utilities Commission of Kentucky	Not Applicable
Chang, Sean	Shell Energy North America (US), LP	Other Supplier
Chen,Hong	PJM Interconnection, LLC	Not Applicable
Chintapalli, Raj	BP Energy Company	Power Marketer
Cocco, Michael	Old Dominion Electric Cooperative	Electric Distributor
Conn, Jeff	Big Bend Trading	Other Supplier
Coyne, Suzanne	PJM Interconnection, LLC	Not Applicable
Crystle, Gil	UGI Development Company	Transmission Owner
Cummings, Bridgid	PJM Interconnection, LLC	Not Applicable
DeLosa, Joe	NJ Board of Public Utilities	Not Applicable
Denby, Brett	Northern Virginia Electric Cooperative	Electric Distributor
DePillo, Ray	PSEG Energy Resources and Trade LLC	Transmission Owner
Dolan, Jim	PJM Interconnection, LLC	Not Applicable
Domian, Christin	Mitsubishi Electric Power Products Inc.	Not Applicable
Duensing, Allison	Saracen Energy	Other Supplier
Dugan, Chuck	East Kentucky Power Cooperative, Inc.	Transmission Owner
Durinsky, Mike	FirstEnergy Solutions Corp.	Transmission Owner
Evrard, David	The Pennsylvania Office of Consumer Advocate	Not Applicable
Fabiano, Janell	PJM Interconnection, LLC	Not Applicable
Fan, Zhenyu	PJM Interconnection, LLC	Not Applicable
Fares, Robert	FERC	Not Applicable
Feller, John	PPL Electric Utilities Corp. dba PPL Utilities	Transmission Owner
Garnett, Bryan	Duke Energy	Transmission Owner
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PJM Interconnection, LLC

PJM Interconnection, LLC

Highlands Energy Group LLC (The)

Michigan Public Service Commission

ConEdison Energy, Inc.

Roscommon Analytics

Roscommon Analytics

Market Interconnection LLC

PJM©2019 6

Union Electric Company d/b/a Ameren Missouri





Hayik, Seth Heinle, Erik Heisey, Bradley Hohenshilt, Jennifer Holdbrook, Ruth Holland, Risa Holter, Natasha Horstmann, John Hurwich, Mark Janicki, Diane Jardot, Gina

Jardot, Gina Jens, Tom Jett, William Josyula, Siva Kelly, Stephen Kenney, Susan Kilgallen, Kevin Laymon, Angelita Lejcar, Jamie

Libbos, Robin Logan, Sharon Long, Matthew Lowe, Connie Luna, Joel

Liang-Nicol, Cecilia

Mancuso, Melanie Mariam, Yohannes

Miller, John
Mooney, Jeff
O'Boyle, Brian
Ondayko, Brock
Pakela, Gregory
Park, Jinny
Patel, Keyurbhai
Peoples, John
Perera, Asanga
Price, Mark
Rajan , Abhijit
Ramsey, James
Redwine, Arlo

Robson, Matt Scheidecker, Paul Schum, Alice Schuyler, Ken Shah, Vijay Shanker, Roy Singer, Chad Singh, Harliv Solomon, Greg Squibb, Bill Monitoring Analytics, LLC D.C. Office of the People's Counsel

Wolf Hills Energy, LLC Talen Energy Marketing, LLC Northern Virginia Electric Cooperative

PJM Interconnection, LLC PJM Interconnection, LLC

Dayton Power & Light Company (The)
Elliott Bay Energy Trading, LLC
Boston Energy Trading & Marketing, LLC

Nautilus Power, LLC Blackoak Capital

Duke Energy Business Services LLC

Monitoring Analytics, LLC Brookfield Energy Marketing LP PJM Interconnection, LLC Avangrid Renewables, LLC FirstEnergy Solutions Corp. Allegheny Electric Cooperative, Inc.

Monongahela Power Company d/b/a Allegheny Power

FirstEnergy Solutions Corp.

The Federal Energy Regulatory Commission

Appalachain Power Company Dominion Virginia Power Monitoring Analytics, LLC FirstEnergy Solutions Corp.

Office of the Peoples Counsel for the District of Columbia

Commonwealth Edison Company
FirstEnergy Solutions Corp.
Consolidated Edison Solutions, Inc.
Appalachain Power Company
DTE Energy Trading, Inc.
PJM Interconnection, LLC
PJM Interconnection, LLC
Duquesne Light Company
PJM Interconnection, LLC
DC Energy Mid-Atlantic, LLC
Dominion Resources
Suffolk Fund LLC

FERC

SESCO Enterprises LLC
PJM Interconnection, LLC
Illinois Municipal Electric Agency
PJM Interconnection, LLC
PJM Interconnection, LLC
H.Q. Energy Services (U.S.), Inc.

Fellon McCord

PJM Interconnection, LLC NextEra Energy Marketing, LLC Ohio Valley Electric Corporation Not Applicable
Not Applicable
Generation Owner
Generation Owner
Electric Distributor
Not Applicable
Not Applicable
Transmission Owner
Other Supplier
Generation Owner
Other Supplier
Generation Owner
Other Supplier
Generation Owner
Not Applicable
Other Supplier

Not Applicable
Other Supplier
Not Applicable
Generation Owner
Transmission Owner
Electric Distributor
Transmission Owner
Transmission Owner
Not Applicable

Not Applicable
Transmission Owner
Not Applicable
Not Applicable
Transmission Owner
End User Customer
Transmission Owner
Transmission Owner
Transmission Owner
Transmission Owner
Other Supplier
Not Applicable
Not Applicable
Transmission Owner

Other Supplier
Not Applicable
Other Supplier
Not Applicable
Other Supplier
Not Applicable
Electric Distributor
Not Applicable
Not Applicable
Other Supplier
Not Applicable
Other Supplier
Not Applicable
Other Supplier
Generation Owner

Not Applicable





Stone, Andy

Stotesbury, Christina

Thompson, Matthew

Tibbetts, Maeve

Toomey, Megan

Vayda, Brian

Ward, Michael

Wei, Jane

Wilhite, Chad

Williams, Stanley

Wilmoth ES, Emily

Xenopoulous, Damon

Xu,Xu

Yeaton, Andrea

Zadlo, Thomas

Zhang, Michael

Keshavamurthy, Bhavana (Secretary)

PJM Interconnection, LLC

PJM Interconnection, LLC

XO Energy MA

Pierce Atwood

Talen Energy Marketing, LLC

Borough of Park Ridge, NJ

PJM Interconnection, LLC

Monitoring Analytics, LLC

FirstEnergy Solutions Corp.

PJM Interconnection, LLC

Dominion Virginia Power

N/A

PJM Interconnection, LLC

Not Applicable

Not Applicable

Other Supplier

Not Applicable

Generation Owner

Electric Distributor

Not Applicable

Not Applicable

Transmission Owner

Not Applicable

PJM©2019 8