

Draft Minutes



Market Implementation Committee Special Session: Quadrennial Review PJM Conference and Training Center June 22, 2018
1:00 p.m. – 4:00 p.m. EPT

Administration

 Ms. Christina Stotesbury, PJM, reviewed the PJM meeting guidelines and the Quadrennial Review work plan.

Education

- 2. Dr. Joseph Bowring, Monitoring Analytics, and Mr. Raymond Pasteris, on behalf of Monitoring Analytics, presented recommendations on the Variable Resource Requirement (VRR) curve.
- 3. PJM requested feedback and questions associated with Brattle's posted data and the prepared response to the recommendations as requested by stakeholders.

Matrix & Feedback

- 4. Mr. Gary Helm, PJM, led the discussion to receive stakeholder input on the matrix.
- 5. Stakeholders had the opportunity to ask questions and provide feedback.

Future Meeting Dates

July 6, 2018	9:00 a.m. – 12:00 p.m.	PJM Conference & Training Center/ WebEx
July 27, 2018	9:00 a.m. – 4:00 p.m.	PJM Conference & Training Center/ WebEx

Attendees

Hendrzak, Chantal (Chair)	PJM Interconnection, LLC	Not Applicable
Stotesbury, Christina (Secretary)	PJM Interconnection, LLC	Not Applicable
Abend, Erik	Erik Abend Consulting	Not Applicable
Ainspan, Malcolm	Energy Curtailment Specialists, Inc.	Other Supplier
Anders, David	PJM Interconnection, LLC	Not Applicable
Azar, Abe	DB Energy Trading LLC	Other Supplier
Barker, Jason	Exelon Business Services Company, LLC	Transmission Owner
Beitel, Callias	Uncia energy	Other Supplier
Benchek, Jim	American Transmission Systems, Inc.	Transmission Owner
Bennett, Stephen	PJM Interconnection, LLC	Not Applicable
Berberich, Arthur	Dominion Energy Generation Marketing, Inc.	Generation Owner
Bhavaraju, Murty	PJM Interconnection, LLC	Not Applicable
Bickerstaff, Dean	Hartree Partners	Other Supplier
Bodell, Tanya	Energyzt	Not Applicable
Bolan, Martin	FirstEnergy Solutions Corp.	Transmission Owner
Bowring, Joe	Monitoring Analytics, LLC	Not Applicable
Brady, Cynthia	Exelon Business Services Company, LLC	Transmission Owner

PJM©2018





Britt, Debbie North Carolina Electric Membership Corporation
Brodbeck, John EDP Renewables North America, LLC

Brown, Rich

Bruno, Joshua

PJM Interconnection, LLC

Campbell, Bruce EnergyConnect, Inc.

Carmean, Greg OPSI

Carrado, Regina PECO Energy Company

Chintapalli, Raj Galt Power Inc.

Cocco, Michael Old Dominion Electric Cooperative

Currier ES, Jeff Dominion Virginia Power D'Alessandris, Lou FirstEnergy Solutions Corp.

Daou, Patrick Sargent & Lundy

Dasher, Brett
Daugherty, Suzanne
PJM Interconnection, LLC
Davis, Elizabeth
PJM Interconnection, LLC
Davis, James
DeLosa, Joseph
DE Public Service Commission
DiNicola, Laura
Energy Authority, Inc. (The)
PJM Interconnection, LLC
Dominion Energy Marketing, Inc.
DE Public Service Commission
FirstEnergy Solutions Corp.

Dirani, Rami

Dirani, Rami

PJM Interconnection, LLC

Dolan, Ryan

American Municipal Power, Inc.

Mitcubichi Floatric Power Products Inc.

Domian, Christin Mitsubishi Electric Power Products Inc.
Dorko, Keri Monitoring Analytics, LLC

Driscoll, Mary Ellen

Dumitriu, Nicolae

Erffmeyer, Jack

Filomena, Guy

PJM Interconnection, LLC

PJM Interconnection, LLC

Illinois Attorney General Office

Customized Energy Solutions, Ltd.

Fitch, Neal NRG Power Marketing LLC

Foladare, Kenneth Tangibl

Ford, Adrien Old Dominion Electric Cooperative

Fort, Jim The Energy Authority
Foster, Denise PJM Interconnection, LLC

Gahimer, Michael

Gaston, Vilna

Public Service Electric & Gas Company

Gebolys, Debbie

Public Utilities Commission of Ohio (The)

Gerlach, Kathryn

PSEG Energy Resources and Trade, LLC

Giacomoni, Anthony PJM Interconnection, LLC Gilani, Rehan ConEdison Energy, Inc.

Greiner, Gary PSEG Energy Resources and Trade LLC

Guerry, Katie EnerNOC, Inc.

Hanser, Erik Michigan Public Service Commission

Electric Distributor

Other Supplier
Not Applicable
Not Applicable
Not Applicable
Not Applicable
Other Supplier

Not Applicable

Transmission Owner

Other Supplier Electric Distributor Not Applicable

Transmission Owner

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

Transmission Owner

Not Applicable
Electric Distributor
Not Applicable
Not Applicable
Not Applicable
Not Applicable
Not Applicable
Not Applicable
Congration Owner

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

Transmission Owner Not Applicable Other Supplier Not Applicable Other Supplier Other Supplier Other Supplier Not Applicable

PJM©2018 2





Hauske, Thomas Hawkins, Peterson Heinle, Frederick Heisey, Bradley Helm, Gary Hoatson, Tom Hohenshilt, Jennifer Holdbrook, Ruth Holland, Risa Horstmann, John Horton, Dana Hunter, Rebecca Huntoon, Stephen Hyzinski, Tom Janicki, Diane Janicki, Diane Jha, Monica Johnson, Carl Josyula, Siva Kalle, Ibrahima Kauffman, Brian Keenan, Matthew Kelly, Stephen

Keshavamurthy, Bhavana

Kilgallen, Kevin Kinser, Cynthia Kogut, George Kopinski, John Kuo, David

LeBris Erffmeyer, Jacques

Lee, Lori Murphy Lejcar, Jamie Leopold, Chris Lieberman, Steven Lowe Connie Lu, Chenchao Mabry, David Mariam, Yohannes Marton, David Midgley, Sharon Mok, Alan

PJM Interconnection, LLC Luminus Management, LLC Office of the People's Counsel Wolf Hills Energy, LLC PJM Interconnection, LLC

Talen Energy Marketing, LLC Northern Virginia Electric Cooperative

PJM Interconnection, LLC

Riverside Generating, LLC

Dayton Power & Light Company (The)

Appalachian Power Company Calpine Energy Solutions, LLC

NextEra Energy Power Marketing, LLC

GT Power Group

Boston Energy Trading & Marketing, LLC Boston Energy Trading & Marketing, LLC

PCI

Customized Energy Solutions, Ltd.*

Monitoring Analytics, LLC

Tibiri Energies EnerNOC, Inc. Jpower USA

Brookfield Energy Marketing LP PJM Interconnection, LLC Avangrid Renewables LLC

Tennessee Department of Agriculture

New York Power Authority

ITC Mid-Atlantic Development LLC

DC Energy LLC

Illinois Citizens Utility Board PJM Interconnection, LLC

Allegheny Electric Cooperative, Inc. Appalachian Power Company American Municipal Power, Inc. **Dominion Virginia Power** PJM Interconnection, LLC McNees Wallace & Nurick LLC

Office of the Peoples Counsel for the District of Columbia

FirstEnergy Solutions Corp.

Exelon Business Services Company, LLC

Duke Energy Kentucky, Inc.

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

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

Not Applicable **Transmission Owner Transmission Owner Electric Distributor** Not Applicable Not Applicable Not Applicable **End User Customer**

Transmission Owner Transmission Owner Transmission Owner

3 PJM©2018



Sturgeon, John

Sweeney, Rory Tangirala, Subha

Tibbetts, Maeve

Draft Minutes

Monzon, Stephanie PJM Interconnection, LLC Not Applicable Not Applicable Nawaz, Zainab NJ Board of Public Utilities Newell, Sam **Brattle** Not Applicable Nix, Emma PJM Interconnection, LLC Not Applicable Norton, Chris American Municipal Power, Inc. **Electric Distributor** Oates, David Luke **Brattle** Not Applicable O'Connell, Robert PPGI Fund A/B Development, LLC **Generation Owner** OHara, Christopher PJM Interconnection, LLC Not Applicable Ondayko, Brock Appalachain Power Company **Transmission Owner** O'Neill, Jack PJM Interconnection, LLC Not Applicable Pakela, Greg DTE Energy Trading, Inc. Other Supplier Patel, Keyurbhai PJM Interconnection, LLC Not Applicable Peoples, John **Duquesne Light Company Transmission Owner** Philips, Marjorie Direct Energy Business, LLC Other Supplier Phillips, Darlene PJM Interconnection, LLC Not Applicable Pratzon, David **GT Power Group** Not Applicable Price, Ruth Division of the Public Advocate of the State of Delaware **End User Customer** Rajan ES, Abhijit **Dominion Resources** Not Applicable Ramsey, James Suffolk Fund LLC Other Supplier Ritchie, Sandra Not Applicable PJM Interconnection, LLC Rohrbach, John Southern Maryland Electric Cooperative **Electric Distributor** Rothey, Kristin American Municipal Power, Inc. **Electric Distributor** Rushing, Nathan CPV Maryland, LLC **Generation Owner** Salaneck, Alexandra Monitoring Analytics, LLC Not Applicable Customized Energy Solutions, Ltd.* Not Applicable Sasser, Jonathan Scarpignato, David Calpine Energy Services, L.P. **Generation Owner** Schneider, Jonathan FirstEnergy Solutions Corp. **Transmission Owner** Maryland Public Service Commission Schreim, Morris Not Applicable Schuyler, Ken PJM Interconnection, LLC Not Applicable Shanker, Roy H.Q. Energy Services (U.S.), Inc. Other Supplier Shorin, Emily The Brattle Group Not Applicable Sillin, John The Federal Energy Regulatory Commission Not Applicable Singer, Chad Fellon McCord Not Applicable Other Not Applicable Slagel, Ronald Snyder, Sue PJM Interconnection, LLC Not Applicable Souder, Michelle PJM Interconnection, LLC Not Applicable Stewart, Travis Not Applicable Gable and Associates Stubbe, Judy Duke Energy Ohio, Inc. **Transmission Owner**

PJM©2018 4

Other Supplier

Not Applicable

Not Applicable

Not Applicable

Duke Energy Carolinas, LLC

RTO Insider

Pierce Atwood

ABB



Draft Minutes



Tribulski, Jennifer
Tsao, Stephanie
Tyler, Catherine
Walter, Laura
Ward, Michael
Whitehead, Jeffrey
Wicks, Tonja
Wilkie, Brian
Williams, Amber
Williams, Stanley
Wilmoth ES, Emily
Wilson, James
Xenopoulos, Damon
Yang, Dan

PJM Interconnection, LLC SPGlobal Monitoring Analytics PJM Interconnection, LLC PJM Interconnection, LLC GT Power Group

Duquesne Light Company
Rockland Electric Company
New York State Electric & C

New York State Electric & Gas Corporation

PJM Interconnection, LLC Dominion Virginia Power Wilson Energy Economics

Brickfield, Burchette, Ritts & Stone, P.C.

Parma Energy LLC The Energy Authority, Inc. Not Applicable
Not Applicable
Not Applicable
Not Applicable
Not Applicable
Not Applicable
Transmission Owner
Transmission Owner
Other Supplier
Not Applicable
Not Applicable

Not Applicable Other Supplier Other Supplier

Not Applicable

Author: Christina Stotesbury

Yi, Weili

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.

PJM©2018 5