

Market Implementation Committee Special Session: Electric Storage Participation/FERC Order 841
 PJM Conference and Training Center
 June 14, 2018
 9:00 a.m. – 12:00 p.m. EPT

Electric Storage Resource (ESR) = a resource capable of receiving electric energy from the grid and storing it for later injection of electric energy back to the grid.

Questions, concerns, feedback: ESR@pjm.com

Administration

- Ms. Chrissy Stotesbury, PJM, reviewed the PJM Meeting Guidelines.

Education

- Ms. Laura Walter, PJM, presented a working document of frequently asked questions.
- Mr. Scott Baker, PJM, provided an update on the Distributed Energy Resource Subcommittee work plan and education on status quo for generators that are connected behind a customer's meter that have come through the PJM queue and sell into PJM markets.
- Mr. Keyur Patel and Mr. Stefan Starkov, PJM, presented education on pumped hydro operation and load and gen bidding in the Day Ahead Market.
- Mr. Scott Benner, PJM, presented education on Reserves & Reactive

Working Discussion

- Matrix Feedback

A. Mr. Peter Fuller, Autumn Lane Energy Consulting, LLC representing NextEra, presented feedback on the matrix.

B. Mr. Tom Rutigliano, Achieving Equilibrium LLC, representing Energy Storage Association, presented feedback on the matrix.

Future Meeting Dates

June 27, 2018	1:00 p.m.	PJM Conference & Training Center/ WebEx
August 3, 2018	1:00 p.m.	PJM Conference & Training Center/ WebEx
September 14, 2018	1:00 p.m.	PJM Conference & Training Center/ WebEx

Meeting Attendees

Walter, Laura (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
Anderson, Jared	S&P Global	Not Applicable

Baker, Scott	PJM Interconnection, LLC	Not Applicable
Barker, Jason	Exelon Business Services Company, LLC	Transmission Owner
Baur, Sean	GlidePath Development LLC	Not Applicable
Beattie, Jeff	CMS Energy Resource Management Company	Other Supplier
Benckek, Jim	American Transmission Systems, Inc.	Transmission Owner
Berlinski, Mike	Customized Energy Solutions, Ltd.*	Not Applicable
Bhavaraju, Murty	PJM Interconnection, LLC	Not Applicable
Bolan, Martin	FirstEnergy Solutions Corp.	Transmission Owner
Borgatti, Michael	Gabel and Associates	Not Applicable
Bowring, Joe	Monitoring Analytics, LLC	Not Applicable
Boyle, Glen	PJM Interconnection, LLC	Not Applicable
Brisley, Steven	Vertiv	Not Applicable
Britt, Debbie	North Carolina Electric Membership Corporation	Electric Distributor
Burdis, Tim	PJM Interconnection, LLC	Not Applicable
Campbell, Bruce	EnergyConnect, Inc.	Other Supplier
Canter, David	Appalachian Power Company	Transmission Owner
Cawley, Troy	PJM Interconnection, LLC	Not Applicable
Chen, Jennifer	Natural Resources Defense Council	Not Applicable
Chintapalli, Raj	Galt Power Inc.	Other Supplier
Chocarro Aguirrebengoa, Iker	E.ON Climate & Renewables North America, Inc.	Generation Owner
Ciabattoni, Joe	PJM Interconnection, LLC	Not Applicable
Ciabattoni, Joseph	PJM Interconnection, LLC	Not Applicable
Clemencon-Charles, Elena	AEP Energy, Inc.	Transmission Owner
Cocco, Michael	Old Dominion Electric Cooperative	Electric Distributor
Covino, Susan	PJM Interconnection, LLC	Not Applicable
Croop, Danielle	PJM Interconnection, LLC	Not Applicable
Crystle, Gil	UGI Development Company	Transmission Owner
Crystle, Gilbert	UGI Energy Services, LLC	Other Supplier
Currier ES, Jeff	Dominion Virginia Power	Not Applicable
D'Alessandris, Lou	FirstEnergy Solutions Corp.	Transmission Owner
Davis, James	Dominion Energy Marketing, Inc.	Generation Owner
DeLosa, Joseph	DE Public Service Commission	Not Applicable
DeLosa, Joseph	DE Public Service Commission	Not Applicable
Dempsey, John	Public Service Electric & Gas Company	Transmission Owner
Depillo, Raymond	PSEG Energy Resources and Trade LLC	Other Supplier
Dirani, Rami	PJM Interconnection, LLC	Not Applicable
Dolan, James	PJM Interconnection, LLC	Not Applicable
Dolan, Ryan	American Municipal Power, Inc.	Electric Distributor
Domian, Christin	Mitsubishi Electric Power Products Inc.	Not Applicable
Dugan, Chuck	East Kentucky Power Cooperative, Inc.	Transmission Owner
Dumitriu, Nicolae	PJM Interconnection, LLC	Not Applicable
Endress, Eric	PJM Interconnection, LLC	Not Applicable
Feliks, Kent	Appalachian Power Company	Transmission Owner
Filomena, Guy	Customized Energy Solutions, Ltd.	Not Applicable
Fitch, Neal	NRG Power Marketing LLC	Generation Owner
Foladare, Kenneth	Tangibl	Not Applicable
Foley, Imelda	University of Delaware	Not Applicable
Ford, Adrien	Old Dominion Electric Cooperative	Electric Distributor
Foster, Denise	PJM Interconnection, LLC	Not Applicable

Franks, Edmund	PJM Interconnection, LLC	Not Applicable
Fuller, Peter	NRG Power Marketing, LLC	Generation Owner
Gahimer, Michael	IN Office of Utility Consumer Counselor	End User Customer
Garbini, Marj	Potomac Electric Power Company	Transmission Owner
Gates, Terry	Appalachian Power Company	Transmission Owner
Gebolys, Debbie	Public Utilities Commission of Ohio (The)	Not Applicable
Genuario, Gabrielle	PJM Interconnection, LLC	Not Applicable
Gilani, Rehan	ConEdison Energy, Inc.	Other Supplier
Giordano, Sam	Public Service Electric & Gas Company	Transmission Owner
Greiner, Gary	PSEG Energy Resources and Trade LLC	Other Supplier
Guerry, Katie	EnerNOC, Inc.	Other Supplier
Guntle, Vince	UGI Development Company	Generation Owner
Haas, Howard	Monitoring Analytics, LLC	Not Applicable
Hall, Tim	Southern OPCO's: APC, GPC, GuPC, MPC, SPC - J&S	Not Applicable
Hamilton, Brian	Unknown	Unknown
Hanser, Erik	Michigan Public Service Commission	Not Applicable
Harmon, Mike	Union Electric Company d/b/a Ameren Missouri	Other Supplier
Hartman, Carla	Adapt2 Solutions, Inc.	Not Applicable
Hastings, David	Market Interconnection LLC	Not Applicable
Hauske, Thomas	PJM Interconnection, LLC	Not Applicable
Haynes, Greg	Energy Authority, Inc. (The)	Other Supplier
Hebert, Christopher	Beacon Power, LLC	Other Supplier
Heinle, Frederick	Office of the People's Counsel	End User Customer
Heisey, Bradley	Wolf Hills Energy, LLC	Generation Owner
Hendrix, Chris	Texas Retail Energy, LLC	Other Supplier
Hendrzak, Chantal	PJM Interconnection, LLC	Not Applicable
Herel, Suzanne	RTO Insider	Not Applicable
Hoatson, Tom	Riverside Generating, LLC	Other Supplier
Hohenshilt, Jennifer	Talen Energy Marketing, LLC	Generation Owner
Holdbrook, Ruth	Northern Virginia Electric Cooperative	Electric Distributor
Holland, Risa	PJM Interconnection, LLC	Not Applicable
Horstmann, John	Dayton Power & Light Company (The)	Transmission Owner
Hsia, Eric	PJM Interconnection, LLC	Not Applicable
Hunter, Rebecca	Calpine Energy Solutions, LLC	Other Supplier
Huntoon, Stephen	NextEra Energy Power Marketing, LLC	Not Applicable
Hyzinski, Tom	GT Power Group	Not Applicable
Janicki, Diane	Boston Energy Trading & Marketing, LLC	Generation Owner
Jett, William	Duke Energy Business Services LLC	Generation Owner
Jha, Monica	PCI	Not Applicable
Johnson, Carl	Customized Energy Solutions, Ltd.*	Not Applicable
Josyula, Siva	Monitoring Analytics, LLC	Not Applicable
Kaczanowski, Marek	Baltimore Gas and Electric Company	Transmission Owner
Kalle, Ibrahima	Tibiri Energies	Not Applicable
Kauffman, Brian	EnerNOC, Inc.	Other Supplier
Kelly, Stephen	Brookfield Energy Marketing LP	Other Supplier
Keshavamurthy, Bhavana	PJM Interconnection, LLC	Not Applicable
Kilgallen, Kevin	Avangrid Renewables LLC	Generation Owner
Kimmel, David	PJM Interconnection, LLC	Not Applicable
Kinser, Cynthia	Tennessee Department of Agriculture	Not Applicable

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Knernschiold, Jenjira	Old Dominion Electric Cooperative	Electric Distributor
Kogut, George	New York Power Authority	Other Supplier
Kopinski, John	ITC Mid-Atlantic Development LLC	Other Supplier
Kuo, David	DC Energy LLC	Other Supplier
LaRocque, Matthew	PJM Interconnection, LLC	Not Applicable
Lee, Lori Murphy	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	FirstEnergy Solutions Corp.	Transmission Owner
Lieberman, Steven	American Municipal Power, Inc.	Electric Distributor
Lin, Jiadong	DC Energy, LLC	Other Supplier
Liu, Eva	NRG Power Marketing LLC	Generation Owner
Long, Amanda	PJM Interconnection, LLC	Not Applicable
Long, Scott	Allegheny Electric Cooperative, Inc.	Electric Distributor
Loose, Trevor	Energrid	Not Applicable
Lowe, Connie	Dominion Virginia Power	Not Applicable
Mabry, David	McNees Wallace & Nurick LLC	Not Applicable
Mack, Amanda	NextEra Energy Power Marketing, LLC	Generation Owner
Marcino, Angelo	PJM Interconnection, LLC	Not Applicable
Mariam, Yohannes	Office of the Peoples Counsel for the District of Columbia	End User Customer
Marton, David	FirstEnergy Solutions Corp.	Transmission Owner
Marzewski, Skyler	Monitoring Analytics, LLC	Not Applicable
Matheson, Doug	EnerNOC, Inc.	Other Supplier
Maye, ShellyAnn	North America Power Partners LLC	Other Supplier
McGill, Susan	PJM Interconnection, LLC	Not Applicable
McKissack, Chris	GlidePath Energy Solutions	Not Applicable
McMonagle, Matt	Dimension Energy Services	Not Applicable
Midgley, Sharon	Exelon Business Services Company, LLC	Transmission Owner
Mok, Alan	Duke Energy Kentucky, Inc.	Transmission Owner
Morelli, Lisa	PJM Interconnection, LLC	Not Applicable
Munsch, Kristin	Citiizens Utility Board	Not Applicable
Nadel, Steven	PPL Electric Utilities Corp. dba PPL Utilities	Transmission Owner
Nanavati, Shaina	North Carolina Electric Cooperatives	Not Applicable
Nix, Emma	PJM Interconnection, LLC	Not Applicable
Norton, Chris	American Municipal Power, Inc.	Electric Distributor
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
Pakula, Maggie	Invenergy, LLC	Generation Owner
Park, Jinny	PJM Interconnection, LLC	Not Applicable
Patel, Keyurbhai	PJM Interconnection, LLC	Not Applicable
Pelletier, Eveline	Hydro-Quebec	Not Applicable
Peoples, John	Duquesne Light Company	Transmission Owner
Peterson, Jeff	Duke Energy Business Services LLC	Transmission Owner
Phillips, Marjorie	Direct Energy Business, LLC	Other Supplier
Poulos, Greg	CAPS	Not Applicable
Pratzon, David	GT Power Group	Not Applicable
Price, Ruth	Division of the Public Advocate of the State of Delaware	End User Customer

Prokop, Brenda
 Quevada, Jason
 Rajan ES, Abhijit
 Razze, Scott
 Riopko, Eric
 Ritchie, Sandra
 Rohrbach, John
 Rosenblatt, Alex
 Rothery, Kristin
 Russo, Michael
 Rutigliano, Tom
 Sasser, Jonathan
 Scarpignato, David
 Schneider, Jon
 Schreim, Morris
 Schuyler, Ken
 Shoop, Patrick
 Shorin, Emily
 Singer, Chad
 Slagel, Ronald
 Snyder, Sue
 Starkov, Stefan
 Stern, Alexander
 Stewart, Travis
 Strella, Lauren
 Stubbe, Judy
 Sturgeon, John
 Suh, Jung
 Summers, Ted
 Sweeney, Rory
 Tacka, Natalie
 Talbot, Soria
 Tipnis, Ritesh
 Trayers, Barry
 Tribulski, Jennifer
 Tsao, Stephanie
 Vayda, Brian
 Velasco, Cheryl Mae
 Ward, Michael
 Warshel, Kim
 Watson, Betty
 Weber, Adam
 Wehr, Christopher
 Whitehead, Jeffrey
 Wicks, Tonja
 Wilhite, Chad
 Wilkie, Brian
 Williams, Amber
 Wilson, Bram

ITC Mid-Atlantic Development LLC
 PJM Interconnection, LLC
 Dominion Resources
 Potomac Electric Power Company
 Exelon Generation Co., LLC
 PJM Interconnection, LLC
 Southern Maryland Electric Cooperative
 Duquesne Light Company
 American Municipal Power, Inc.
 Monitoring Analytics, LLC
 Achieving Equilibrium LLC
 Customized Energy Solutions, Ltd.*
 Calpine Energy Services, L.P.
 FirstEnergy Solutions Corp.
 Maryland Public Service Commission
 PJM Interconnection, LLC
 Customized Energy Solutions, Ltd.
 The Brattle Group
 Fellon McCord
 Other
 PJM Interconnection, LLC
 PJM Interconnection, LLC
 Public Service Electric & Gas Company
 Gable and Associates
 PJM Interconnection, LLC
 Duke Energy Ohio, Inc.
 Duke Energy Carolinas, LLC
 Calpine Energy Services, L.P.
 Direct Energy Business Marketing, LLC
 RTO Insider
 PJM Interconnection, LLC
 NextEra Energy Power Marketing, LLC
 AEP Energy Partners, Inc.
 Citigroup Energy, Inc.
 PJM Interconnection, LLC
 SPGlobal
 Borough of Park Ridge, NJ
 PJM Interconnection, LLC
 PJM Interconnection, LLC
 PJM Interconnection, LLC
 SolarCity
 Union Electric Company d/b/a Ameren Missouri
 Metropolitan Edison Company
 GT Power Group
 Duquesne Light Company
 FirstEnergy Solutions Corp.
 Consolidated Edison Solutions, Inc
 New York State Electric & Gas Corporation
 Diamond State Generation Partners, LLC

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



Draft Minutes

Wolfe, Sam
Xu, Ding
Yi, Weili
York, Amy

Viridity Energy, Inc.
North Carolina Electric Membership Corporation
The Energy Authority, Inc.
McNees Wallace & Nurick

Other Supplier
Electric Distributor
Other Supplier
Not Applicable

Author: Christina Stotesbury

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