



Energy Price Formation Sr. Task Force PJM Conference and Training Center May 23, 2018 10:00 a.m. – 4:30 p.m. EPT

Administration

- 1. Mr. Dave Anders and Mr. Vijay Shah provided announcements, review the Anti-trust, Code of Conduct and PJM meeting guidelines policies and perform in-room roll-call
- 2. The Senior Task Force approved draft minutes from the May 23, 2018 Energy Price Formation Senior Task Force (EPFSTF) meeting.

Simplified Operating Reserve Demand Curve (ORDC)

- 3. <u>Simplified ORDC Framework</u>
 - A. Dr. Patricio A. Rocha Garrido, PJM, provided a presentation discussing the concepts and framework for enhancements to the ORDC, as part of the short term goals.

Synchronized Reserves

4. Synchronized Reserves

- A. Ms. Cheryl Mae Velasco, PJM, provided an overview of the latest proposal for synchronized reserves. Please refer to supporting documents that has been posted for background on the SR proposal.
- B. Dr. Catherine Tyler, IMM, provided a presentation on analysis of the Synchronized Reserves offer margin.

Matrix

5. Matrix

- A. Mr. Dave Anders led a discussion capturing design components and options to the EPFSTF matrix focusing on the reserve market.
- B. Dr. Catherine Tyler, IMM, provided a presentation on reserve zone modeling from IMM's perspective.

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Future Agenda Items

Future Meeting Dates

June 8, 2018 9:00 a.r June 25, 2018 10:00 a July 17, 2018 9:30 a.r August 6, 2018 10:00 a August 22, 2018 10:00 a September 10, 2018 10:00 a October 12, 2018 9:00 a. November 1, 2018 9:00 a. November 28, 2018 9:00 a. December 14, 2018 9:00 a.	A.m. PJM Conference & Training Center/ WebEx m. PJM Conference & Training Center/ WebEx a.m. PJM Conference & Training Center/ WebEx m.
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Author: Vijay Shah

In Attendance (In Person)

Last Name, First Name	Company	Sector
Anders, David	PJM Interconnection, LLC	Not Applicable
Bruce, Susan	McNees Wallace & Nurick LLC	Not Applicable
Callaghan, Chris	PJM Interconnection, LLC	Not Applicable
Ciabattoni, Joseph	PJM Interconnection, LLC	Not Applicable
Dugan, Chuck	East Kentucky Power Cooperative, Inc.	Transmission Owner
Fereshetian, Damon	PJM Interconnection, LLC	Not Applicable
Fitch, Neal	NRG Power Marketing LLC	Generation Owner
Ford, Adrien	Old Dominion Electric Cooperative	Electric Distributor
Greiner, Gary	PSEG Energy Resources and Trade LLC	Other Supplier
Hendrzak, Chantal	PJM Interconnection, LLC	Not Applicable
Horger, Tim	PJM Interconnection, LLC	Not Applicable
Horton, Dana	Appalachian Power Company	Transmission Owner
Johnson, Carl	Customized Energy Solutions, Ltd.*	Not Applicable
Keech, Adam	PJM Interconnection, LLC	Not Applicable
Kenney, Susan	PJM Interconnection, LLC	Not Applicable
Lieberman, Steven	American Municipal Power, Inc.	Electric Distributor
Marcino, Angelo	PJM Interconnection, LLC	Not Applicable
Maxwell, Melissa	PJM Interconnection, LLC	Not Applicable
Midgley, Sharon	Exelon Business Services Company, LLC	Transmission Owner
Morelli, Lisa	PJM Interconnection, LLC	Not Applicable
O'Connell, Robert	PPGI Fund A/B Development, LLC	Generation Owner
Pakela, Greg	DTE Energy Trading, Inc.	Other Supplier
Park, Jinny	PJM Interconnection, LLC	Not Applicable
Poulos, Greg	CAPS	Not Applicable
Pratzon, David	GT Power Group	Not Applicable





Rocha-Garrido, Patricio	PJM Interconnection, LLC	Not Applicable
Scarpignato, David	Calpine Energy Services, L.P.	Generation Owner
Shah, Vijay	PJM Interconnection, LLC	Not Applicable
Sweeney, Rory	RTO Insider	Not Applicable
Tyler, Catherine	Monitoring Analytics	Not Applicable
Velasco, Cheryl Mae	PJM Interconnection, LLC	Not Applicable
Warshel, Kim	PJM Interconnection, LLC	Not Applicable
Whitehead, Jeffrey	GT Power Group	Not Applicable
Wilkie, Brian	Consolidated Edison Solutions, Inc	Other Supplier

In Attendance (Teleconference)

Last Name, First Name	Company	Sector
Ainspan, Malcolm	Energy Curtailment Specialists, Inc.	Other Supplier
Bagot, Nancy	Electric Power Supply Association	Not Applicable
Barker, Jason	Exelon Business Services Company, LLC	Transmission Owner
Bonner, Charles	Dominion Virginia Power	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
Campbell, Bruce	EnergyConnect, Inc.	Other Supplier
Chintapalli, Raj	Galt Power Inc.	Other Supplier
Cox, EdwardP	Appalachian Power Company	Transmission Owner
Coyle, Billy	Dominion Virginia Power	Not Applicable
Coyne, Suzanne	PJM Interconnection, LLC	Not Applicable
Croop, Danielle	PJM Interconnection, LLC	Not Applicable
Dasher, Brett	Energy Authority, Inc. (The)	Other Supplier
Davis, Elizabeth	PJM Interconnection, LLC	Not Applicable
DeLosa, Joseph	DE Public Service Commission	Not Applicable
Denby, Brett	Novec	Not Applicable
Dillon, Matthew	UGI Development Company	Generation Owner
Endress, Eric	PJM Interconnection, LLC	Not Applicable
Fan, Zhenyu	PJM Interconnection, LLC	Not Applicable
Feliks, Kent	Appalachian Power Company	Transmission Owner
Fields, William	Maryland Office of Peoples Counsel	End User Customer
Filomena, Guy	Customized Energy Solutions, Ltd.	Not Applicable
Gahimer, Michael	IN Office of Utility Consumer Counselor	End User Customer
Gerlach, Kathryn	PSEG Energy Resources and Trade, LLC	Other Supplier
Gilani, Rehan	ConEdison Energy, Inc.	Other Supplier





Gledhill, Andrew	PJM Interconnection, LLC	Not Applicable
Guo, JauJia	Appalachian Power Company	Transmission Owner
Hart, Joy	North Carolina Electric Membership Corporation	Electric Distributor
Hastings, David	Market Interconnection LLC	Not Applicable
Heinle, Frederick	Office of the People's Counsel	End User Customer
Helms, Joseph	Rainbow Energy Marketing Corporation	Other Supplier
Herel, Suzanne	RTO Insider	Not Applicable
Hoatson, Tom	Riverside Generating, LLC	Other Supplier
Hohenshilt, Jennifer	Talen Energy Marketing, LLC	Generation Owner
Holter, Natasha	PJM Interconnection, LLC	Not Applicable
Hsia, Eric	PJM Interconnection, LLC	Not Applicable
Hyzinski, Tom	GT Power Group	Not Applicable
Janicki, Diane	Boston Energy Trading & Marketing, LLC	Generation Owner
Kalle, Ibrahima	Tibiri Energies	Not Applicable
Kelly, Stephen	Brookfield Energy Marketing LP	Other Supplier
Kimmel, David	PJM Interconnection, LLC	Not Applicable
Kinser, Cynthia	Tennessee Department of Agriculture	Not Applicable
Lawson, Ryen	Dominion Virginia Power	Not Applicable
Lee, Ray	PJM Interconnection, LLC	Not Applicable
Leopold, Chris	Appalachian Power Company	Transmission Owner
Li, Kanning	PJM Interconnection, LLC	Not Applicable
Libbos, Robin	FirstEnergy Solutions Corp.	Transmission Owner
Long, Amanda	PJM Interconnection, LLC	Not Applicable
Mabry, David	McNees Wallace & Nurick LLC	Not Applicable
Marton, David	FirstEnergy Solutions Corp.	Transmission Owner
Matzen, Jeff	Dominion Retail, Inc.	Not Applicable
Mendelsohn, Mark	Noble Americas Gas & Power Corp.	Other Supplier
Metzler, Jakob	Castleton Commodities Merchant Trading L.P.	Other Supplier
Moye, Bob	Rainbow Energy Marketing Corporation	Other Supplier
Murray, Kevin	McNees Wallace & Nurick LLC	Not Applicable
Nawaz, Zainab	NJ Board of Public Utilities	Not Applicable
Nix, Emma	PJM Interconnection, LLC	Not Applicable
O'Hara, Brian	Mercuria Energy Inc.	Other Supplier
Ondayko, Brock	Appalachain Power Company	Transmission Owner
Patel, Keyurbhai	PJM Interconnection, LLC	Not Applicable
Pelletier, Eveline	Hydro-Quebec	Not Applicable
Peoples, John	Duquesne Light Company	Transmission Owner
Phillips, Jennifer	C.P. Crane LLC	Generation Owner
Powers, Sean	Linde Energy Services, Inc.	End User Customer





Price, Ruth	Division of the Public Advocate of the State of Delaware	End User Customer
Promubol, Jim	Shell Energy North America (US), LP	Other Supplier
Quevada, Jason	PJM Interconnection, LLC	Not Applicable
Rajan, Abhijit	Dominion Resources	Not Applicable
Rohrbach, John	Southern Maryland Electric Cooperative	Electric Distributor
Rutigliano, Tom	Achieving Equilibrium LLC	Other Supplier
Sasser, Jonathan	Customized Energy Solutions, Ltd.*	Not Applicable
Schuyler, Ken	PJM Interconnection, LLC	Not Applicable
Schweizer, David	PJM Interconnection, LLC	Not Applicable
Shanker, Roy	H.Q. Energy Services (U.S.), Inc.	Other Supplier
Stefanowicz, Vincent	PJM Interconnection, LLC	Not Applicable
Stotesbury, Christina	PJM Interconnection, LLC	Not Applicable
Thompson, Matt	XO Energy MA, LP	Other Supplier
Trayers, Barry	Citigroup Energy, Inc.	Other Supplier
Tsao, Stephanie	SPGlobal	Not Applicable
Vargo, Daniel	Allegheny Electric Cooperative, Inc.	Electric Distributor
Ward, Michael	PJM Interconnection, LLC	Not Applicable
Warner-Freeman, Jennifer	PJM Interconnection, LLC	Not Applicable
Wei, Jane	Monitoring Analytics	Not Applicable

Antitrust:

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.

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