

Energy Price Formation Sr. Task Force  
PJM Conference and Training Center  
May 4, 2018  
9:00 p.m. – 3:00 p.m. EPT

## Administration

1. Mr. Dave Anders and Mr. Vijay Shah provided announcements, reviewed the Anti-trust, Code of Conduct and PJM meeting guidelines policies and performed in-room roll-call
2. The Senior Task Force approved meeting minutes from the May 4, 2018 Energy Price Formation Senior Task Force meeting.

## Workplan

### 3. Workplan Update

Mr. Dave Anders led discussion of the workplan and meeting schedule for the EPFSTF. See posted workplan for more details on upcoming meeting schedule and discussion topics.

## Identification of Gaps and Opportunities for Reserve Markets

### 4. Identification of Gaps and Opportunities for Energy and Reserve Markets

- A. Mr. Dave Anders led discussion around identification of gaps for key work activity item 3 from the issue charge to capture stakeholder identification of gaps with current market design.

## Synchronized Reserves

### 5. Synchronized Reserves

- A. Mr. Chris Pulong, PJM, gave a presentation on the operations and reliability needs for reserves and limitations of the current reserve market design.
- B. Dr. Patricio A. Rocha Garrido, PJM, gave a presentation highlighting the differences between capacity reserves and operational reserves.
- C. Ms. Melissa Maxwell, PJM, gave a presentation on the fundamentals of market clearing with co-optimization and the concept of lost opportunity cost.
- D. Dr. Catherine Tyler, IMM, gave a presentation on the current cost structure and Manual 15 requirements for Synchronized Reserve offers.
- E. Ms. Cheryl Mae Velasco, PJM, gave an update to the short-term Synchronized Reserve Market goals.

## Matrix (1:40 – 3:00)

- Mr. Dave Anders led a discussion capturing design components and options to build the matrix for EPFSTF focusing on the reserve market. Updated matrix with comments from stakeholders has been posted under the meeting materials folder.

Meeting adjourned 3:00

## Future Agenda Items

## Future Meeting Dates

May 23, 2018	10:00 a.m.	PJM Conference & Training Center/ WebEx
June 8, 2018	9:00 a.m.	PJM Conference & Training Center/ WebEx
June 25, 2018	10:00 a.m.	PJM Conference & Training Center/ WebEx
July 17, 2018	9:30 a.m.	PJM Conference & Training Center/ WebEx
August 6, 2018	10:00 a.m.	PJM Conference & Training Center/ WebEx
August 22, 2018	10:00 a.m.	PJM Conference & Training Center/ WebEx
September 10, 2018	10:00 a.m.	PJM Conference & Training Center/ WebEx
October 12, 2018	9:00 a.m.	PJM Conference & Training Center/ WebEx
November 1, 2018	9:00 a.m.	PJM Conference & Training Center/ WebEx
November 28, 2018	9:00 a.m.	PJM Conference & Training Center/ WebEx
December 14, 2018	9:00 a.m.	PJM Conference & Training Center/ WebEx

Author: Vijay Shah

## In Attendance (In Person)

Name	Company	Sector
Anders, David	PJM Interconnection, LLC	Not Applicable
Borgatti, Michael	Gabel and Associates	Not Applicable
Bowring, Joe	Monitoring Analytics, LLC	Not Applicable
Bruce, Susan	McNees Wallace & Nurick LLC	Not Applicable
Burdis, Tim	PJM Interconnection, LLC	Not Applicable
Callaghan, Chris	PJM Interconnection, LLC	Not Applicable
Ciabattoni, Joseph	PJM Interconnection, LLC	Not Applicable
Dirani, Rami	PJM Interconnection, LLC	Not Applicable
Falin, Tom	PJM Interconnection, LLC	Not Applicable
Fitch, Neal	NRG Power Marketing LLC	Generation Owner
Foladare, Kenneth	Tangibl	Not Applicable
Ford, Adrien	Old Dominion Electric Cooperative	Electric Distributor
Giacomoni, Anthony	PJM Interconnection, LLC	Not Applicable
Guerry, Katie	EnerNOC, Inc.	Other Supplier
Hendrzak, Chantal	PJM Interconnection, LLC	Not Applicable
Johnson, Carl	Customized Energy Solutions, Ltd.*	Not Applicable
Kauffman, Brian	NRG Power Marketing LLC	Not Applicable
Keech, Adam	PJM Interconnection, LLC	Not Applicable

Kogut, George	New York Power Authority	Other Supplier
Lieberman, Steven	American Municipal Power, Inc.	Electric Distributor
Maxwell, Melissa	PJM Interconnection, 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
OHara, Christopher	PJM Interconnection, LLC	Not Applicable
Olaleye, Michael	PJM Interconnection, LLC	Not Applicable
Park, Jinny	PJM Interconnection, LLC	Not Applicable
Pilong, Christopher	PJM Interconnection, LLC	Not Applicable
Poulos, Greg	CAPS	Not Applicable
Pratzon, David	GT Power Group	Not Applicable
Scarpignato, David	Calpine Energy Services, L.P.	Generation Owner
Shah, Vijay	PJM Interconnection, LLC	Not Applicable
Stewart, Travis	Gable and Associates	Not Applicable
Suh, Jung	Calpine Energy Services, L.P.	Generation Owner
Tribulski, Jennifer	PJM Interconnection, LLC	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

## In Attendance (Teleconference)

Name	Company	Sector
Ahmad, Syed	The Federal Energy Regulatory Commission	Not Applicable
Ainspan, Malcolm	Energy Curtailment Specialists, Inc.	Other Supplier
Benchek, Jim	American Transmission Systems, Inc.	Transmission Owner
Bickerstaff, Dean	Hartree Partners	Other Supplier
Bilash, Jason	PJM Interconnection, LLC	Not Applicable
Binder, Gerry	SESCO Enterprises LLC	Other Supplier
Brodbeck, John	EDP Renewables North America, LLC	Other Supplier
Campbell, Bruce	EnergyConnect, Inc.	Other Supplier
Carmean, Gregory	OPSI	Not Applicable
Carroll, Rebecca	PJM Interconnection, LLC	Not Applicable
Cawley, Troy	PJM Interconnection, LLC	Not Applicable
Chen, Jennifer	Natural Resources Defense Council	Not Applicable
Cox, EdwardP	Appalachian Power Company	Transmission Owner

Croop, Danielle	PJM Interconnection, LLC	Not Applicable
D'Alessandris, Lou	FirstEnergy Solutions Corp.	Transmission Owner
Daugherty, Suzanne	PJM Interconnection, LLC	Not Applicable
Davis, Elizabeth	PJM Interconnection, LLC	Not Applicable
DeLosa, Joseph	DE Public Service Commission	Not Applicable
Denby, Brett	Novac	Not Applicable
DePillo, Raymond	PSEG Energy Resources and Trade LLC	Other Supplier
Dillon, Matthew	UGI Development Company	Generation Owner
Endress, Eric	PJM Interconnection, LLC	Not Applicable
Fan, Zhenyu	PJM Interconnection, LLC	Not Applicable
Fields, William	Maryland Office of Peoples Counsel	End User Customer
Filomena, Guy	Customized Energy Solutions, Ltd.	Not Applicable
Gagen, Rod	Dominion Virginia Power	Not Applicable
Gahimer, Mike	IN Office of Utility Consumer Counselor	End User Customer
Gebolys, Debbie	Public Utilities Commission of Ohio (The)	Not Applicable
Genuario, Gabrielle	PJM Interconnection, LLC	Not Applicable
Gerlach, Kathryn	PSEG Energy Resources and Trade, LLC	Other Supplier
Gilani, Rehan	ConEdison Energy, Inc.	Other Supplier
Greiner, Gary	PSEG Energy Resources and Trade LLC	Other Supplier
Grimes, Jordan	Morningstar Commodity Data	Not Applicable
Guo, Jaujia	Appalachian Power Company	Transmission Owner
Hastings, David	Market Interconnection LLC	Not Applicable
Hauske, Thomas	PJM Interconnection, LLC	Not Applicable
Heisey, Bradley	Wolf Hills Energy, LLC	Generation Owner
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
Horstmann, John	Dayton Power & Light Company (The)	Transmission Owner
Horton, Dana	Appalachian Power Company	Transmission Owner
Hsia, Eric	PJM Interconnection, LLC	Not Applicable
Hyzinski, Tom	GT Power Group	Not Applicable
Johnston, David	Indiana Utility Regulatory Commission	Not Applicable
Kalle, Ibrahima	Tibiri Energies	Not Applicable
Kelly, Stephen	Brookfield Energy Marketing LP	Other Supplier
Kimmel, David	PJM Interconnection, LLC	Not Applicable
Lawson, Ryan	Dominion Virginia Power	Not Applicable
Libbos, Robin	FirstEnergy Solutions Corp.	Transmission Owner
Lowe, Connie	Dominion Virginia Power	Not Applicable

Mabry, David	McNees Wallace & Nurick 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
Mendelsohn, Mark	Noble Americas Gas & Power Corp.	Other Supplier
Mirhosseini, Niloufar	PJM Interconnection, LLC	Not Applicable
Murray, Kevin	McNees Wallace & Nurick LLC	Not Applicable
Nawaz, Zainab	NJ Board of Public Utilities	Not Applicable
O'Hara, Brian	Mercuria Energy Inc.	Other Supplier
Ondayko, Brock	Appalachain Power Company	Transmission Owner
Pakela, Greg	DTE Energy Trading, Inc.	Other Supplier
Pakula, Maggie	Invenergy, LLC	Generation Owner
Pang, Michael	Merrill Lynch Commodities, Inc.	Other Supplier
Pelletier, Eveline	Hydro-Quebec	Not Applicable
Philips, Marjorie	Direct Energy Business, LLC	Other Supplier
Powers, Sean	Linde Energy Services, Inc.	End User Customer
Ramsey, James	Suffolk Fund LLC	Other Supplier
Rocha-Garrido, Patricio	PJM Interconnection, LLC	Not Applicable
Rohrbach, John	Southern Maryland Electric Cooperative	Electric Distributor
Ruck, Andrew	PSEG Energy Resources and Trade, LLC	Other Supplier
Rushing, Nathan	CPV Maryland, LLC	Generation Owner
Saini, Ishwar	Macquarie Energy LLC	Other Supplier
Sasser, Jonathan	Customized Energy Solutions, Ltd.*	Not Applicable
Schmitt, Jeff	PJM Interconnection, LLC	Not Applicable
Schneider, Jonathan	FirstEnergy Solutions Corp.	Transmission Owner
Schuyler, Ken	PJM Interconnection, LLC	Not Applicable
Sillin, John	The Federal Energy Regulatory Commission	Not Applicable
Slagel, Ronald	Other	Not Applicable
Sweeney, Rory	RTO Insider	Not Applicable
Thompson, Matt	XO Energy MA, LP	Other Supplier
Trayers, Barry	Citigroup Energy, Inc.	Other Supplier
Ward, Michael	PJM Interconnection, LLC	Not Applicable
Wilhite, Chad	FirstEnergy Solutions Corp.	Transmission Owner
Wilkie, Brian	Consolidated Edison Solutions, Inc	Other Supplier
Williams, Stanley	PJM Interconnection, LLC	Not Applicable
Wilson, Bram	Diamond State Generation Partners, LLC	Generation Owner
Wilson, James	Wilson Energy Economics	Not Applicable
Wisersky, Megan	Madison Gas & Electric Company	Other Supplier

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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# Meeting Minutes

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