

Markets and Reliability Committee  
WebEx and Teleconference  
March 22, 2018  
9:00 a.m. – 11:30 p.m. EPT

## Administration

Ms. Suzanne Daugherty and Mr. Dave Anders welcomed the participants, and provided the antitrust and code of conduct announcements.

## Endorsements/Approvals

### 1. Draft Minutes

Minutes of the February 22, 2018 meeting of the Markets and Reliability Committee (MRC) were **approved** by acclamation with no objections or abstentions.

### 2. PJM Manuals

- A. Ms. Bilge Derin reviewed the proposed changes to Manual 01: Control Center and Data Exchange Requirements.
- B. Mr. Ron De Loach reviewed the proposed changes to Manual 3A: Energy Management System (EMS) Model Updates and Quality Assurance (QA).
- C. Mr. Ed Franks presented changes to Manual 14A: New Services Request Process and Manual 14E: Additional Information for Upgrade and Transmission Interconnection Projects. These changes correspond to the Tariff revisions endorsed by the MRC at its December 21, 2017 meeting.
- D. Ms. Becky Carroll presented proposed revisions to Manual 33: Administrative Services for PJM Interconnection Agreement.
- E. Mr. Donnie Bielak reviewed the proposed changes to Manual 37: Reliability Coordination.

Following discussion, the proposed manual revisions in items 2A through 2.E were **endorsed** by acclamation with no objections or abstentions.

### 3. Energy Price Formation Sr. Task Force (EPFSTF)

- A. Mr. Dave Anders presented a draft charter for the EPFSTF. Following discussion, the proposed charter was **approved** by acclamation with no objections or abstentions.
- B. Mr. Dave Anders and Mr. Dave Souder presented proposed revisions to the Energy Price Formation Issue Charge related to development of a real-time, 30 minute reserve product. Through discussion, references to a “real time 30 minute reserve product” were revised to “a real time secondary reserve product”. Following discussion, the proposed revision to the Issue Charge was **approved** by acclamation with no objections or abstentions.

#### 4. Tariff Revisions to Address Overlapping Congestion

Mr. Tim Horger presented proposed Tariff and Operating Agreement (OA) revisions to address overlapping congestion for pseudo-tied resources. Following discussion, the proposed Tariff and OA revisions were **endorsed/approved** by acclamation with no objections and two abstentions. There were no objections to requesting that this item be placed on the Consent Agenda for the March 22, 2018 Members Committee meeting.

### First Readings

#### 5. PJM External Capacity Filing

Ms. Nikki Militello and Mr. Aaron Berner discussed revisions to Manual 12: Balancing Operations regarding the addition of reviews required to permit external generation to participate in PJM's market as a Pseudo-Tied generator. The committee will be asked to endorse the proposed revisions at its next meeting.

#### 6. PJM Manuals

- A. Ms. Brinda Malladi presented proposed revisions to Manual 14A New Services Request Process to clarify the language to match existing procedures. The committee will be asked to endorse the manual revisions at its next meeting.
- B. Mr. Jonathan Kern presented proposed revisions to PJM Manual 14B Regional Transmission Planning Process to correct items found during a periodic review, including a revision to the generator deliverability procedure. The committee will be asked to endorse the manual revisions at its next meeting.

### Informational Updates

#### 5-Minute Settlements Implementation

Ms. Suzanne Daugherty discussed the compliance filing that PJM is planning to submit to the FERC on Friday, March 23, 2018 addressing final elements of 5-Minute Settlements, including a correction to the scaling factor to be used to calculate generator revenues for generators that elect to submit hourly revenue data.

#### 7. ComEd Remedial Action Scheme (RAS) Retirements at Davis Creek

Mr. Dave Souder presented on behalf of Mr. Mohit Singh, ComEd, the retirement of the Davis Creek RAS.

#### 8. Generation Transfer Update

Ms. Rebecca Stadelmeyer provided an update on PJM's generation transfer efforts.

### Future Agenda

No new future agenda items were identified.

## Future Meeting Dates

April 19, 2018	9:00 a.m.	Wilmington, DE
May 24, 2018	9:30 a.m.	Valley Forge, PA
June 21, 2018	9:00 a.m.	Wilmington, DE
July 26, 2018	9:00 a.m.	Wilmington, DE
August 23, 2018	9:00 a.m.	Valley Forge, PA
September 27, 2018	9:00 a.m.	Valley Forge, PA
October 25, 2018	9:00 a.m.	Wilmington, DE
December 6, 2018	9:00 a.m.	Wilmington, DE
December 20, 2018	9:30 a.m.	Valley Forge, PA

Author: D. A. Anders

Chair & Secretary			
Anders	David	PJM Interconnection	Not Applicable
Daugherty	Suzanne	PJM Interconnection	Not Applicable

## Voting Participants

LAST NAME	FIRST NAME	COMPANY	SECTOR
Benchek	Jim	American Transmission Systems, Inc.	Transmission Owner
Bickerstaff	Dean	Hartree Partners, LP	Other Supplier
Bleiweis	Bruce	DC Energy, LLC	Other Supplier
Borgatti	Michael	Covanta Energy Group, LLC	Generation Owner
Borgatti	Michael	Jersey Green Energy, LLC	Other Supplier
Borgatti	Michael	Longview Power, LLC	Generation Owner
Borgatti	Michael	Moxie Freedom LLC	Generation Owner
Borgatti	Michael	Newark Energy Center, LLC	Generation Owner
Borgatti	Michael	NextEra Energy Marketing, LLC	Generation Owner
Borgatti	Michael	York County Solid Waste and Refuse Authority	Generation Owner
Brodbeck	John	EDP Renewables North America, LLC	Generation Owner
Bruce	Susan	Air Products & Chemicals, Inc.	End User Customer
Bruce	Susan	ArcelorMittal USA LLC	End User Customer
Bruce	Susan	Gerdau Ameristeel Energy, Inc.	Other Supplier
Bruce	Susan	Industrial Energy Users-Ohio	Other Supplier
Bruce	Susan	Kimberly-Clark Corporation	Generation Owner
Bruce	Susan	Lehigh Portland Cement Company	End User Customer
Bruce	Susan	Letterkenny Industrial Development Authority - PA	Electric Distributor

Bruce	Susan	Linde, LLC	End User Customer
Bruce	Susan	MeadWestvaco Corporation	End User Customer
Bruce	Susan	Praxair, Inc.	End User Customer
Bruce	Susan	Procter & Gamble Paper Products Company (The)	Generation Owner
Bruce	Susan	Trustees of the University of Pennsylvania	End User Customer
Bruce	Susan	Wellsboro Electric Company	Electric Distributor
Campbell	Bruce	Enerwise Global Technologies, Inc.	Other Supplier
Campbell	Bruce	MidAtlantic Power Partners, LLC	Other Supplier
Canter	David	Appalachian Power Company	Transmission Owner
Crystle	Gil	UGI Development Company	Generation Owner
Davis	James	Virginia Electric & Power Company	Transmission Owner
Dugan	Chuck	East Kentucky Power Cooperative, Inc.	Transmission Owner
Fitch	Neal	NRG Power Marketing, LLC	Generation Owner
Fondacci	Luis	North Carolina Electric Membership Corporation	Electric Distributor
Ford	Adrien	Old Dominion Electric Cooperative	Electric Distributor
Fox	Angela	Affirmed Energy LLC	Other Supplier
Giles	Steven	Allegheny Electric Cooperative, Inc.	Electric Distributor
Greiner	Gary	Public Service Electric & Gas Company	Transmission Owner
Helms	Joseph	Rainbow Energy Marketing Corporation	Other Supplier
Hoatson	Tom	Riverside Generating, LLC	Generation Owner
Hoatson	Tom	West Deptford Energy, LLC	Generation Owner
Hohenshilt	Jennifer	Talen Energy Marketing, LLC	Generation Owner
Horstmann	John	Dayton Power & Light Company (The)	Transmission Owner
Hyzinski	Thomas	Dynegy Marketing and Trade, LLC	Generation Owner
Johnson	Carl	Allegheny Electric Cooperative, Inc.	Electric Distributor
Johnson	Carl	American Municipal Power, Inc.	Electric Distributor
Johnson	Carl	Blue Ridge Power Agency, Inc.	Electric Distributor
Johnson	Carl	Borough of Chambersburg	Electric Distributor
Johnson	Carl	Borough of Mont Alto, Pennsylvania	Electric Distributor
Johnson	Carl	Buckeye Power, Inc.	Electric Distributor
Johnson	Carl	Central Virginia Electric Cooperative	Electric Distributor
Johnson	Carl	City of Dover, Delaware	Electric Distributor
Johnson	Carl	Delaware Municipal Electric Corporation, Inc.	Electric Distributor
Johnson	Carl	Easton Utilities Commission	Electric Distributor

Johnson	Carl	Energy Cooperative Association of Pennsylvania (The)	Other Supplier
Johnson	Carl	Galt Power, Inc.	Other Supplier
Johnson	Carl	Hagerstown Light Department	Electric Distributor
Johnson	Carl	Illinois Municipal Electric Agency	Electric Distributor
Johnson	Carl	Indiana Municipal Power Agency	Generation Owner
Johnson	Carl	Madison Gas & Electric Co.	Other Supplier
Johnson	Carl	North Carolina Electric Membership Corporation	Electric Distributor
Johnson	Carl	North Carolina Municipal Power Agency Number 1	Other Supplier
Johnson	Carl	Northern Illinois Municipal Power Agency	Electric Distributor
Johnson	Carl	Northern Virginia Electric Cooperative (NOVEC)	Electric Distributor
Johnson	Carl	Old Dominion Electric Cooperative	Electric Distributor
Johnson	Carl	Thurmont Municipal Light Company	Electric Distributor
Johnson	Carl	Town of Williamsport (The)	Electric Distributor
Johnson	Carl	WPPI Energy	Other Supplier
Keenan	Matthew	Elwood Energy, LLC	Generation Owner
Kelly	Stephen	Brookfield Energy Marketing LP	Other Supplier
Kilgallen	Kevin	Avangrid Renewables, LLC	Generation Owner
Kogut	George	New York Power Authority	Other Supplier
Lieberman	Steven	American Municipal Power, Inc.	Electric Distributor
Long	Scott	Allegheny Electric Cooperative, Inc.	Electric Distributor
Midgley	Sharon	Exelon Business Services Company, LLC	Transmission Owner
O'Connell	Robert	PPGI Fund A/B Development, LLC.	Generation Owner
Poulos	Greg	Consumer Protection and Advocate Division of the Tennessee Attorney General	End User Customer
Poulos	Greg	Delaware Division of the Public Advocate	End User Customer
Poulos	Greg	Illinois Citizen Utility Board	End User Customer
Poulos	Greg	Indiana Office of Utility Consumer Counselor (IN OUCC)	End User Customer
Poulos	Greg	Maryland Office of People's Counsel	End User Customer
Poulos	Greg	New Jersey Division of Rate Counsel	End User Customer
Poulos	Greg	Office of the Attorney General, Kentucky	End User Customer

Poulos	Greg	Office of the People's Counsel for the District of Columbia	End User Customer
Poulos	Greg	Ohio Consumers' Counsel	End User Customer
Poulos	Greg	Pennsylvania Office of Consumer Advocate	End User Customer
Poulos	Greg	Public Staff - North Carolina Utilities Commission	End User Customer
Poulos	Greg	Virginia Division of Consumer Counsel	End User Customer
Poulos	Greg	West Virginia Consumer Advocate Division	End User Customer
Pratzon	David	Eastern Generation, LLC	Generation Owner
Pratzon	David	Essential Power Rock Springs, LLC	Transmission Owner
Pratzon	David	Wheelabrator Frackville Energy Co., Inc.	Generation Owner
Prokop	Brenda	ITC Interconnection LLC	Transmission Owner
Scarpignato	David	Calpine Energy Services, L.P.	Generation Owner
Spencer	Doug	Southeastern Power Administration	Other Supplier
Sturgeon	John	Duke Energy Business Services LLC	Transmission Owner
Trayers	Barry	Citigroup Energy, Inc.	Other Supplier
Wilkie	Brian	Rockland Electric Company	Transmission Owner

<b>Non-Voting</b>			
<b>LAST NAME</b>	<b>FIRST NAME</b>	<b>COMPANY</b>	<b>SECTOR</b>
Ainspan	Malcolm	NGR	None
Anderson	Jared	Platts	None
Barker	Jason	Exelon Business Services Company, LLC	Transmission Owner
Beattie	Jeff	Consumers Energy Company	Other Supplier
Benchek	Jim	FirstEnergy Solutions Corp.	Transmission Owner
Bowring	Joe	Monitoring Analytics	None
Branch	John	Edgecombe Genco, LLC	Generation Owner
Canter	David	American Electric Power	Transmission Owner
Carmean	Gregory	OPSI	None
Cocco	Michael	Old Dominion Electric Cooperative	Electric Distributor
Coffey	Cecelia	FERC	None
D'Alessandris	Lou	American Transmission Systems, Inc.	Transmission Owner
Dasher	Brett	Energy Authority	None
DeLosa	Joseph	Delaware Public Service Commission	None
Denby	Brett	NOVEC	None
DePillo	Raymond	Public Service Electric & Gas Company	Transmission Owner

Dillon	Matthew	UGI Development Company	Generation Owner
Domian	Christin	Duquesne Light Company	Transmission Owner
Esposito	Patricia	A2A Energy International, LLC	None
Feierabend	Richard	Dominion Energy Generation Marketing, Inc.	Generation Owner
Filomena	Guy	Customized Energy Solutions, Ltd.*	None
Foladare	Kenneth	Tangibl	None
Fuess	Christian	White Pine Energy Consulting	None
Gebolys	Debra	Public Utilities Commission of Ohio	None
Godson	Gloria	Potomac Electric Power Company	Electric Distributor
Greening	Michele	PPL Electric Utilities Corporation d/b/a PPL Utilities	Transmission Owner
Guerry	Katie	EnterNOC	None
Hanser	Erik	Michigan Public Service Commission	None
Harmon	Michael	Union Electric Company d/b/a Ameren Missouri	Other Supplier
Hastings	David	DHAST Co.	None
Heinle	Frederick	Office of the People's Counsel for the District of Columbia	End User Customer
Hitch	George	Dominion Energy Generation Marketing, Inc.	Generation Owner
Hudis	Gabriella	Gable and Associates	None
Huntoon	Steve	Energy Consulting Services, LLC	Other Supplier
Hurwich	Mark	Elliott Bay Energy Trading, LLC	Other Supplier
Janicki	Diane	Boston Energy Trading and Marketing LLC	Generation Owner
Johnston	David	Indiana Utility Regulatory Commission	None
Jones	Ryan	Allegheny Electric Cooperative, Inc.	Electric Distributor
Kaczanowski	Marek	Baltimore Gas and Electric Company	Transmission Owner
Kauffman	Brian	NRG Curtailment Solutions, Inc.	Other Supplier
Knernschild	Jenjira	ODEC	None
Leiberman	Steven	American Municipal Power	Electricity Distributor
Liang-Nicol	Cecilia	FirstEnergy Solutions Corp.	Transmission Owner
Manning	James	North Carolina Electric Membership Corporation	Electric Distributor
Mcmackin	Devin	ITC Holdings	None
Moncayo	Jorge	FERC	None
Nawaz	Zainab	NJ Board of Public Utilities	None
Ondayko	Brock A.	American Electric Power	None

Pakela	Greg	DTE Energy Trading, Inc.	Other Supplier
Pakula	Maggie	Invenergy, LLC	Generation Owner
Peoples	John	Duquesne Light Company	Transmission Owner
Poulos	Greg	Consumer Advocates of The PJM States	None
Pratzon	David	GT Power Group	None
Price	Ruth Ann	Delaware Division of the Public Advocate	End User Customer
Rainey	Frank	PEI Power Corporation	Generation Owner
Reams	William	Allegheny Electric Cooperative, Inc.	Electric Distributor
Robinson	Maria	Advanced Energy Economy	None
Rohrbach	John	Southern Maryland Electric Cooperative, Inc.	Electric Distributor
Sasser	Jonathan	Customized Energy Solutions, Ltd.*	None
Schneider	Jon	FirstEnergy Solutions Corp.	Transmission Owner
Schreim	Morris	Maryland Public Service Commission	None
Sillin	John	FERC	None
Stern	Alex	Public Service Electric & Gas Company	Transmission Owner
Stewart	Travis	Gable and Associates	None
Stone	Andy	Gable and Associates	None
Stubbe	Judy	Duke Energy Ohio, Inc.	Transmission Owner
Stuchell	Jeff	FirstEnergy Solutions Corp.	Transmission Owner
Sweeney	Rory	RTO Insider	None
Tangirala	Subha	ABB	None
Theodore	Sharon	EPSA Trade Association	None
Thompson	Matt	XO Energy MA, L.P.	Other Supplier
Tibbetts	Maeve	Pierce Atwood	None
Tsao	Stephanie	NRG Power Marketing, LLC	Generation Owner
Vanderlaan	William	Illinois Commerce Commission	None
Vargo	Daniel	Allegheny Electric Cooperative, Inc.	Electric Distributor
Walker	Jennifer	Exelon Business Services Company, LLC	Transmission Owner
Weaver	David	PECO Energy Company	Transmission Owner
Whitehead	Jeffrey	GT Power Group	None
Wicks	Tonja	Duquesne Light Company	Transmission Owner
Wilhite	Chad	FirstEnergy Solutions Corp.	Transmission Owner
Wilson	Bram	Yellow Jacket Energy, LLC	Generation Owner

## PJM Participants

LAST NAME	FIRST NAME	Company	SECTOR
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Bielak	Donald	PJM Interconnection	None
Boyle	Glen	PJM Interconnection	None
Bresler	Stu	PJM Interconnection	None
Brown	Richard	PJM Interconnection	None
Bryson	Mike	PJM Interconnection	None
Buehler	Susan	PJM Interconnection	None
Burdis	Tim	PJM Interconnection	None
Burlew	Jim	PJM Interconnection	None
Carroll	Rebecca	PJM Interconnection	None
Ciabattoni	Joe	PJM Interconnection	None
Connell	Jason	PJM Interconnection	None
Coyne	Suzanne	PJM Interconnection	None
Croop	Danielle	PJM Interconnection	None
Davis	Elizabeth	PJM Interconnection	None
DeLoach	Ron	PJM Interconnection	None
Derin	Bilge	PJM Interconnection	None
Driscoll	MaryEllen	PJM Interconnection	None
Egan	Amanda	PJM Interconnection	None
Endress	Eric	PJM Interconnection	None
Fabiano	Janell	PJM Interconnection	None
Fernandez	Ray	PJM Interconnection	None
Foster	Denise	PJM Interconnection	None
Franks	Edmund	PJM Interconnection	None
Glatz	Suzanne	PJM Interconnection	None
Hendrzak	Chantal	PJM Interconnection	None
Herling	Steve	PJM Interconnection	None
Herman	Michael	PJM Interconnection	None
Holland	Risa	PJM Interconnection	None
Horger	Tim	PJM Interconnection	None
Kern	Jonathan	PJM Interconnection	None
Khashfe	Bill	PJM Interconnection	None
Kimmel	David	PJM Interconnection	None
King	Kendra	PJM Interconnection	None
Lamaina	Peter	PJM Interconnection	None
Larocque	Matthew	PJM Interconnection	None
Malladi	Brinda	PJM Interconnection	None
Manion	Evelyn	PJM Interconnection	None
Maxwell	Melissa	PJM Interconnection	None
McGill	Susan	PJM Interconnection	None

McGlynn	Paul	PJM Interconnection	None
Militello	Nicole	PJM Interconnection	None
Monzon	Stephanie	PJM Interconnection	None
Obrien	Tom	PJM Interconnection	None
O'Hara	Chris	PJM Interconnection	None
O'Neill	Jack	PJM Interconnection	None
Ott	Andrew	PJM Interconnection	None
Park	Jinny	PJM Interconnection	None
Patel	Anita	PJM Interconnection	None
Phillips	Darlene	PJM Interconnection	None
Riley	Susan	PJM Interconnection	None
Robinson	Evelyn	PJM Interconnection	None
Schmitt	Jeff	PJM Interconnection	None
Schneider	Howard	PJM Interconnection	None
Schuyler	Ken	PJM Interconnection	None
Schweizer	David	PJM Interconnection	None
Seiler	Ken	PJM Interconnection	None
Shah	Vijay	PJM Interconnection	None
Sitarchyk	Mike	PJM Interconnection	None
Souder	Dave	PJM Interconnection	None
Stadmeyer	Rebecca	PJM Interconnection	None
Stefanowicz	Vince	PJM Interconnection	None
Swimm	Nora	PJM Interconnection	None
Tribulski	Jen	PJM Interconnection	None
Zadlo	Thomas	PJM Interconnection	None