

Markets and Reliability Committee
The Chase Center on the Riverfront, Wilmington, DE
January 26, 2017
9:00 a.m. – 12:35 p.m. EPT

Administration

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

Endorsements/Approvals

1. Draft Minutes

Minutes of the December 22, 2016 meeting of the Markets and Reliability Committee (MRC) were **approved** by acclamation with no objections or abstentions.

2. PJM Manuals

- A. Mr. Eric Hsia presented revisions to Manual 11: Energy & Ancillary Services Market Operations and Manual 12: Balancing Operations to account for the updated Regulation Requirement developed by the Regulation Market Senior Issues Task Force.
- B. Mr. Ray Fernandez presented revisions to Manual 27: Open Access Transmission Tariff Accounting as part of an annual review process.
- C. Mr. Liem Hoang presented proposed revisions to Manual 38: Operations Planning.
- D. Ms. Kim Sauerwine presented proposed revisions to Manual 40: Training and Certification Requirements.

Following discussion, item 2.A was **endorsed** by acclamation with one objection and one abstention. Item 2.B was **endorsed** with no objections and one abstention. The committee **endorsed** the proposed revisions in items 2.C and 2.D by acclamation with no objections or abstentions.

3. PJM Capacity Problem Statement / Issue Charge

Mr. Ed Tatum, American Municipal Power, presented an updated problem statement / issue charge regarding PJM Capacity. Mr. Bob O'Connell proposed a friendly amendment (which was posted on PJM.com) to change references to "state actions" to "out of market" in the problem statement and issue charge. Mr. Tatum indicated that this was not considered friendly, and Mr. O'Connell requested that his revised problem statement and issue charge be considered an alternate proposal. Following significant discussion, the sponsoring group updated/amended the main motion, which was posed on PJM.com. Following discussion, the committee **approved** the proposed problem statement / issue charge sector-weighted vote with 3.95 in favor.

4. Underperformance Risk Management Sr. Task Force (URMSTF)

Ms. Rebecca Carroll presented proposed revisions to the Tariff and Reliability Assurance Agreement regarding participation as Capacity Performance by resources external to PJM's footprint. Following discussion, the committee the proposal **failed** revisions in a sector-weighted vote with 2.79 in favor. Mr. Jason Barker moved and Mr. O'Connell seconded an alternate proposal consisting of the URMSTF proposal modified to be applicable only prospectively (existing units being grandfathered). Mr. Horstmann proposed a friendly amendment to limit the motion to only those sections of the proposal that apply to resources desiring to be pseudo-tied, but have not yet cleared a capacity auction, and that the remainder of the original URMSTF proposal to be returned to the URMSTF for additional consideration. Following discussion the committee **endorsed** the motion in a sector-weighted vote with 3.97 in favor. Ms. Daugherty noted that this proposal will be included on the Members Committee on January 26, 2017 for endorsement.

5. Energy Market Uplift Senior Task Force (EMUSTF)

Mr. Dave Anders, Mr. Stu Bresler and Mr. Adam Keech presented Phase 1 and Phase 2 proposals endorsed by the EMUSTF. Following discussion, the committee **endorsed** the Phase 1 proposal (package A) in a sector-weighted vote with 4.10 in favor. Ms. Stephanie Staska moved and Mr. Wesley Allen seconded postponement of voting on Phase 2 proposals for one year. This motion to defer failed in a sector-weighted vote with 1.2 in favor. Following discussion, the committee **endorsed** the Phase 1 proposal (package Q) in a sector-weighted vote with 3.95 in favor.

6. Market Operations Price Transparency

Mr. Rami Dirani presented a proposed problem statement / issue charge regarding Market Operations Price Transparency. Following discussion, the committee **endorsed** the proposed problem statement / issue charge by acclamation with no objections or abstentions.

7. Operating Parameters

Mr. Tom Hauske reviewed proposed revisions to the PJM Tariff, and Manual 11: Energy & Ancillary Services Market Operations, Manual 12: Balancing Operations, and Manual 28: Operating Agreement Accounting regarding Operating Parameters. Following discussion, the committee **endorsed** the proposed revisions by acclamation with no objections or abstentions.

8. Governing Documents Enhancement & Clarification Subcommittee (GDECS)

Ms. Janell Fabiano presented proposed Tariff, Operating Agreement (OA) and Reliability Assurance Agreement revisions regarding clean-up of definitions. Following discussion, the committee **endorsed** the proposed revisions by acclamation with no objections and one abstention.

First Readings

9. FERC Order 825 – Shortage Pricing

Mr. Adam Keech reviewed the proposed Shortage Pricing / Operating Reserve Demand Curve solution

and associated manual revisions. The committee will be asked to endorse the proposed package at its next meeting.

10. Transmission Substation Equipment in FERC Order 1000

Mr. Mark Sims discussed Regional Transmission Expansion Plan (RTEP) process enhancements related to the treatment of transmission substation equipment in PJM FERC Order 1000 Proposal Windows and associated Operating Agreement revisions. The committee will be asked to endorse the proposed revisions at its next meeting.

11. Draft Pseudo-Tie Agreements

Ms. Jacqui Huges reviewed two pseudo-tie agreements and Tariff and OA revisions shown below. The committee will be asked to endorse the proposed agreements and Tariff and OA revisions at its next meeting.

- Pro forma pseudo-tie agreement
- Pseudo-tie reimbursement agreement for pseudo-tie into PJM
- Associated Tariff and OA revisions

12. PJM Manuals

- Mr. Ryan Nice reviewed proposed changes to Manual 01: Control Center and Data Exchange Requirements. The committee will be asked to endorse the proposed revisions at its next meeting.
- Mr. Jerry Bell presented administrative updates to Manual 22: Generator Resource Performance Indices. The committee will be asked to endorse the proposed revisions at its next meeting.
- A revision to *Manual 39: Nuclear Plant Coordination* was posted effective 12/23/2016. This revision includes only changes to the Attachment C: "Plant Specific NPIRs Revision History" reflecting recent plant specific nuclear plant interface requirement (NPIR) changes.

Informational Updates

13. Dominion Temporary Remedial Action Scheme (RAS)

Mr. Ronnie Bailey, Dominion, reviewed a temporary RAS in the Dominion Transmission Zone.

Future Agenda Items

No new future agenda items were identified.

Future Meeting Dates

February 23, 2017	9:00 a.m.	Wilmington, DE
March 23, 2017	9:00 a.m.	Wilmington, DE
April 27, 2017	9:00 a.m.	Wilmington, DE
May 25, 2017	9:30 a.m.	Wilmington, DE

June 22, 2017	9:00 a.m.	Wilmington, DE
July 27, 2017	9:00 a.m.	Wilmington, DE
August 24, 2017	9:30 a.m.	Wilmington, DE
September 28, 2017	9:00 a.m.	Wilmington, DE
October 26, 2017	9:00 a.m.	Wilmington, DE
November 30, 2017	9:00 a.m.	Wilmington, DE
December 21, 2017	9:30 a.m.	Wilmington, DE

Author: D. A. Anders

CHAIR/SECRETARY

Daugherty	Suzanne	PJM Interconnection, LLC	Not Applicable
Anders	David	PJM Interconnection, LLC	Not Applicable

VOTING PARTICIPANTS

Last Name	First Name	Company	Sector
Barker	Jason	Exelon Business Services Company, LLC	Transmission Owner
Batta	Michael	Virginia Electric & Power Company	Transmission Owner
Benchek	Jim	FirstEnergy Solutions Corp.	Transmission Owner
Birnel	William	Westar Energy, Inc.	Other Supplier
Bleiweis	Bruce	DC Energy, LLC	Other Supplier
Borgatti	Michael	Rep.'g Covanta Energy Group, LLC	Generation Owner
Borgatti	Michael	Rep.'g Elgin Energy Center, LLC	Generation Owner
Borgatti	Michael	Rep.'g Jersey Green Energy LLC	Other Supplier
Borgatti	Michael	Rep.'g Longview Power, LLC	Generation Owner
Borgatti	Michael	Rep.'g Moxie Freedom LLC	Generation Owner
Borgatti	Michael	Rep.'g Newark Energy Center, LLC	Generation Owner
Borgatti	Michael	Rep.'g NextEra Energy Marketing, LLC	Generation Owner
Borgatti	Michael	Rep.'g York County Solid Waste and Refuse Authority	Generation Owner
Brodbeck	John	EDP Renewables North America, LLC	Generation Owner
Bruce	Susan	Rep.'g Air Products & Chemicals, Inc.	End User Customer
Bruce	Susan	Rep.'g Gerdau Ameristeel Energy, Inc.	Other Supplier
Bruce	Susan	Rep.'g Industrial Energy Users-Ohio	Other Supplier
Bruce	Susan	Rep.'g Kimberly-Clark Corporation	Generation Owner
Bruce	Susan	Rep.'g Lehigh Portland Cement Company	End User Customer
Bruce	Susan	Rep.'g Letterkenny Industrial Development Authority	Electric Distributor
Bruce	Susan	Rep.'g Linde, LLC	End User Customer



Bruce	Susan	Rep.'g MeadWestvaco Corporation	End User Customer
Bruce	Susan	Rep.'g Praxair, Inc.	End User Customer
Bruce	Susan	Rep.'g Procter & Gamble Paper Products Company (The)	End User Customer
Bruce	Susan	Rep.'g Trustees of the University of Pennsylvania	End User Customer
Bruce	Susan	Rep.'g Wellsboro Electric Company	Electric Distributor
Campbell	Bruce	Rep.'g Enerwise Global Technologies, Inc.	Other Supplier
Campbell	Bruce	Rep.'g MidAtlantic Power Partners, LLC	Other Supplier
Cox	Jason	Dynegy Marketing and Trade, LLC	Generation Owner
Crystle	Gil	UGI Development Company	Generation Owner
Darby	Benjamin	Lee River Proprietary Strategies, Inc.	Other Supplier
Dugan	Chuck	East Kentucky Power Cooperative, Inc.	Transmission Owner
Ellison	Alan	Grays Ferry Cogeneration Partnership	Generation Owner
Esposito	Patricia	TransCanada Power Marketing Ltd.	Generation Owner
Evrard	David	Pennsylvania Office of Consumer Advocate	End User Customer
Fitch	Neal	NRG Power Marketing, LLC	Generation Owner
Garnett	Bryan	Duke Energy Business Services LLC	Transmission Owner
Gorman	Kevin	The Highlands Energy Group, LLC	Other Supplier
Greening	Michele	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner
Griffiths	Dan	Rep.'g Delaware Division of the Public Advocate	End User Customer
Griffiths	Dan	Rep.'g Indiana Office of Utility Consumer Counselor	End User Customer
Griffiths	Dan	Rep.'g Illinois Citizens Utility Board	End User Customer
Griffiths	Dan	Rep.'g Maryland Office of People's Counsel	End User Customer
Griffiths	Dan	Rep.'g New Jersey Division of Rate Counsel	End User Customer
Griffiths	Dan	Rep.'g Office of the Attorney General, Kentucky	End User Customer
Griffiths	Dan	Rep.'g Office of the People's Counsel for the District of Columbia	End User Customer
Griffiths	Dan	Rep.'g Ohio Consumers' Counsel	End User Customer
Griffiths	Dan	Rep.'g Pennsylvania Office of Consumer Advocate	End User Customer
Griffiths	Dan	Rep.'g West Virginia Consumer Advocate Division	End User Customer
Guerry	Katie	EnerNOC, Inc.	Other Supplier
Hastings	David	Rep.'g Chesapeake Trading Group, LLC	Other Supplier
Hastings	David	Rep.'g Mercuria Energy America, Inc.	Other Supplier
Hastings	David	Rep.'g Northstar Trading Ltd.	Other Supplier
Hastings	David	Rep.'g Saracen Energy East LP	Other Supplier
Hastings	David	Rep.'g SESCO Enterprises, LLC	Other Supplier
Hastings	David	Rep.'g Solios Power Mid-Atlantic Trading LLC	Other Supplier



Helms	Joseph	Rainbow Energy Marketing Corporation	Other Supplier
Horstmann	John	Dayton Power & Light Company (The)	Transmission Owner
Horton	Dana	Appalachian Power Company (AEP Generation)	Transmission Owner
Hurwich	Mark	Elliott Bay Energy Trading, LLC	Other Supplier
Hyzinski	Thomas	Talen Energy Marketing, LLC	Generation Owner
Jardot	Gina	Essential Power Rock Springs, LLC	Transmission Owner
Johnson	Carl	Rep.'g Allegheny Electric Cooperative, Inc.	Electric Distributor
Johnson	Carl	Rep.'g American Municipal Power, Inc.	Electric Distributor
Johnson	Carl	Rep.'g Blue Ridge Power Agency, Inc.	Electric Distributor
Johnson	Carl	Rep.'g Borough of Chambersburg	Electric Distributor
Johnson	Carl	Rep.'g Borough of Mont Alto, Pennsylvania	Electric Distributor
Johnson	Carl	Rep.'g Buckeye Power, Inc.	Electric Distributor
Johnson	Carl	Rep.'g Central Virginia Electric Cooperative	Electric Distributor
Johnson	Carl	Rep.'g City of Dover, Delaware	Electric Distributor
Johnson	Carl	Rep.'g Delaware Municipal Electric Corporation, Inc.	Electric Distributor
Johnson	Carl	Rep.'g Easton Utilities Commission	Electric Distributor
Johnson	Carl	Rep.'g Energy Cooperative Association of PA	Other Supplier
Johnson	Carl	Rep.'g Galt Power, Inc.	Other Supplier
Johnson	Carl	Rep.'g Hagerstown Light Department	Electric Distributor
Johnson	Carl	Rep.'g Illinois Municipal Electric Agency	Electric Distributor
Johnson	Carl	Rep.'g Indiana Municipal Power Agency	Generation Owner
Johnson	Carl	Rep.'g Madison Gas & Electric Co.	Other Supplier
Johnson	Carl	Rep.'g North Carolina Electric Membership Corporation	Electric Distributor
Johnson	Carl	Rep.'g North Carolina Municipal Power Agency # 1	Other Supplier
Johnson	Carl	Rep.'g Northern Virginia Electric Cooperative (NOVEC)	Electric Distributor
Johnson	Carl	Rep.'g Old Dominion Electric Cooperative	Electric Distributor
Johnson	Carl	Rep.'g Thurmont Municipal Light Company	Electric Distributor
Johnson	Carl	Rep.'g Town of Williamsport (The)	Electric Distributor
Johnson	Carl	Rep.'g WPPI Energy	Other Supplier
Kelly	Stephen	Brookfield Energy Marketing LP	Other Supplier
Kilgallen	Kevin	Avangrid Renewables, LLC	Generation Owner
Knies	Heather	LM Power, LLC	Other Supplier
Kogut	George	New York Power Authority	Other Supplier
Lieberman	Steven	Old Dominion Electric Cooperative	Electric Distributor
Long	Scott	Allegheny Electric Cooperative, Inc.	Electric Distributor



McRae	Todd	Dynasty Power, Inc.	Other Supplier
Melnyk	Markian	Atlantic Grid Operations A, LLC	Other Supplier
O'Connell	Robert	PPGI Fund A/B Development, LLC	Generation Owner
Pakela	Greg	DTE Energy Trading, Inc.	Other Supplier
Pratzon	David	Rep.'g Eastern Generation, LLC	Generation Owner
Pratzon	David	Rep.'g Wheelabrator Frackville Energy Co., Inc.	Generation Owner
Pratzon	David	Rep.'g WM Renewable Energy, L.L.C.	Generation Owner
Prokop	Brenda	ITC Interconnection LLC	Transmission Owner
Rohrbach	John	Rep.'g Southern Maryland Electric Cooperative, Inc.	Electric Distributor
Rohrbach	John	Rep.'g Wabash Valley Power Association, Inc.	Electric Distributor
Russell	Randy	Suffolk Fund LLC	Other Supplier
Scarpignato	David	Calpine Energy Services, L.P.	Generation Owner
Skucas	Ruta	Rep.'g Aesir Power, LLC	Other Supplier
Skucas	Ruta	Rep.'g Ames Energy, LLC	Other Supplier
Skucas	Ruta	Rep.'g Appian Way Energy Partners MidAtlantic, LLC	Other Supplier
Skucas	Ruta	Rep.'g Big Bend Trading, LLC	Other Supplier
Skucas	Ruta	Rep.'g BJ Energy, LLC	Other Supplier
Skucas	Ruta	Rep.'g Blackout Power Trading Inc.	Other Supplier
Skucas	Ruta	Rep.'g Boston Energy Group, Inc.	Other Supplier
Skucas	Ruta	Rep.'g Conch Energy Trading, LLC	Other Supplier
Skucas	Ruta	Rep.'g Dufossat Capital I, LLC	Other Supplier
Skucas	Ruta	Rep.'g Endurance Energy Midwest LLC	Other Supplier
Skucas	Ruta	Rep.'g Exion Energy Inc.	Other Supplier
Skucas	Ruta	Rep.'g Falcon Energy, LLC	Other Supplier
Skucas	Ruta	Rep.'g Greene Energy, LLC	Other Supplier
Skucas	Ruta	Rep.'g Hexis Energy Trading, LLC	Other Supplier
Skucas	Ruta	Rep.'g Lantar Energy LLC	Other Supplier
Skucas	Ruta	Rep.'g Liberty Hill Power LLC	Other Supplier
Skucas	Ruta	Rep.'g Mac Trading, Inc	Other Supplier
Skucas	Ruta	Rep.'g MET MA, LLC	Other Supplier
Skucas	Ruta	Rep.'g Monterey MA, LLC	Other Supplier
Skucas	Ruta	Rep.'g Pure Energy, Inc.	Other Supplier
Skucas	Ruta	Rep.'g Raiden Commodities LP	Other Supplier
Skucas	Ruta	Rep.'g Red Wolf Energy Trading, LLC	Other Supplier
Skucas	Ruta	Rep.'g RJUMR Energy Partners Corp.	Other Supplier



Skucas	Ruta	Rep.'g Solea Energy, LLC	Other Supplier
Skucas	Ruta	Rep.'g Southard Energy Partners LLC	Other Supplier
Skucas	Ruta	Rep.'g Strom Power, LLC	Other Supplier
Skucas	Ruta	Rep.'g Taller Cube, LLC	Other Supplier
Skucas	Ruta	Rep.'g TrueLight Commodities, LLC	Other Supplier
Skucas	Ruta	Rep.'g Velocity American Energy Master I, LP	Other Supplier
Skucas	Ruta	Rep.'g Yasmin Partners LLC	Other Supplier
Spencer	Doug	Southeastern Power Administration	Other Supplier
Stern	Alex	Public Service Electric & Gas Company	Transmission Owner
Tatum	Ed	Rep.'g American Municipal Power, Inc.	Electric Distributor
Tatum	Ed	Rep.'g Borough of Butler, Butler Electric Division	Electric Distributor
Tatum	Ed	Rep.'g Borough of Lavallette, New Jersey	Electric Distributor
Tatum	Ed	Rep.'g Borough of Madison, New Jersey	Electric Distributor
Tatum	Ed	Rep.'g Borough of Milltown, New Jersey	Electric Distributor
Tatum	Ed	Rep.'g Borough of Park Ridge, New Jersey	Electric Distributor
Tatum	Ed	Rep.'g Borough of Pemberton	Electric Distributor
Tatum	Ed	Rep.'g Borough of Seaside Heights, New Jersey	Electric Distributor
Tatum	Ed	Rep.'g Borough of South River, New Jersey	Electric Distributor
Tatum	Ed	Rep.'g Vineland Municipal Electric Utility	Electric Distributor
Thompson	Matt	Rep.'g Property Endeavors, LLC	End User Customer
Thompson	Matt	Rep.'g XO Energy MA, L.P.	Other Supplier
Trayers	Barry	Citigroup Energy, Inc.	Other Supplier
Whitehead	Jeffrey	Direct Energy Business, LLC	Other Supplier
Wicks	Tonja	Duquesne Light Company	Transmission Owner
Wood	Gordon	ETC Endure Energy L.L.C.	Other Supplier
Yu	Joel	Rockland Electric Company	Transmission Owner

NON-VOTING PARTICIPANTS

Last Name	First Name	Company	Sector
Ainspan	Malcolm	NRG Power Marketing, LLC	Generation Owner
Bailey	Ronnie	Virginia Electric & Power Company	Transmission Owner
Beattie	Jeff	Consumers Energy Company	Other Supplier
Berlinski	Michael	Customized Energy Solutions, Ltd.	None
Birnel	William	Westar Energy, Inc.	Other Supplier
Bloom	David	Baltimore Gas and Electric Company	Transmission Owner



Bowring	Joseph	Monitoring Analytics, LLC	Not Applicable
Brozina	Mark	Tangibl Group, Inc.	Not Applicable
Carmean	Gregory	OPSI	Not Applicable
Celestine	Kizi	Appalachian Power Company	Transmission Owner
Chintapalli	Raj	BP Energy Company	Other Supplier
Cocco	Michael	Old Dominion Electric Cooperative	Electric Distributor
Conn	Jeff	Big Bend Trading, LLC	Other Supplier
Constantine	Michael	Truelight Commodities LLC	Other Supplier
Cox	Bill	Exion Energy Inc.	Other Supplier
Crystle	Gil	UGI Energy Services, LLC	Other Supplier
Currier	Jeff	Virginia Electric & Power Company	Transmission Owner
Dalessandris	Lou	FirstEnergy Solutions Corp.	Transmission Owner
Dasher	Brett	The Energy Authority, Inc.	Other Supplier
De	Mike	Step 2 Capital	Not Applicable
Depillo	Ray	Public Service Electric & Gas Company	Transmission Owner
Dickson	Douglas	New Jersey Board Of Public Utilities	Not Applicable
Dillion	Matthew	UGI Development Company	Generation Owner
Dinicola	Laura	FirstEnergy Solutions Corp.	Transmission Owner
Domian	Christin	Duquesne Light Company	Transmission Owner
Drangula	Carey	XO Energy MA, L.P.	Other Supplier
Engle	Andrew	XO Energy MA, L.P.	Other Supplier
Farber	John	DE Public Service Commission	Not Applicable
Feierabend	Rick	Dominion Energy Marketing, Inc.	Generation Owner
Filomena	Guy	Customized Energy Solutions, Ltd.	Not Applicable
Fondacci	Luis	North Carolina Electric Membership Corporation	Electric Distributor
Fortin	Thomas	Southard Energy Partners LLC	Other Supplier
Foxen	Timothy	Osaka Gas USA	Not Applicable
Francoeur	Rene	Red Wolf Energy Trading, LLC	Other Supplier
Gilani	Rehan	Consolidated Edison Energy, Inc.	Other Supplier
Giles	Steven	Allegheny Electric Cooperative, Inc.	Electric Distributor
Hanser	Erik	Michigan Public Service Commission	Not Applicable
Harmon	Mike	Union Electric Company d/b/a Ameren Missouri	Other Supplier
Haynes	Gregory	The Energy Authority, Inc.	Other Supplier
Heise	Randi	Virginia Electric & Power Company	Transmission Owner
Hitch	George	Dominion Energy Marketing, Inc.	Generation Owner



Hudis	Gabriella	Gable & Associates	Not Applicable
Hughes	Adam	XO Energy MA, L.P.	Other Supplier
Huntoon	Stephen	Energy Counsel LLP	Not Applicable
Janicki	Diane	Boston Energy Trading & Marketing, LLC	Generation Owner
Jasani	Sachin	Red Wolf Energy Trading, LLC	Other Supplier
Jett	William	Duke Energy Business Services LLC	Transmission Owner
Karrasch	Kim	IGS Energy	Not Applicable
Katayama	Tommy	Osaka Gas USA Corporation	Not Applicable
Kauffman	Brian	NRG Curtailment Solutions, Inc.	Other Supplier
Kerecman	Joe	Calpine Energy Services, L.P.	Generation Owner
Kingston	Amber	Aces Power Marketing	Not Applicable
Kothakapu	Rakesh	Illinois Municipal Electric Agency	Electric Distributor
Kraemer	Neil	XO Energy MA, L.P.	Other Supplier
Lacy	Catharine	Virginia Electric & Power Company	Transmission Owner
Leasure	Jill	Keystone Conemaugh Project Office	Not Applicable
Liang-Nicol	Cecilia	FirstEnergy Solutions Corp.	Transmission Owner
Logan	Sharon	Federal Energy Regulatory Commission	Not Applicable
Logsdon	Josh	Exion Energy Inc.	Other Supplier
Lowe	Connie	Virginia Electric & Power Company	Transmission Owner
Mabry	David	MWN	Not Applicable
Manning	James	North Carolina Electric Membership Corporation	Electric Distributor
Marsan	Mark	Public Service Electric & Gas Company	Transmission Owner
Martin	Valerie	Federal Energy Regulatory Commission	Not Applicable
Marton	Dave	FirstEnergy Solutions Corp.	Transmission Owner
McAdams	Julius	Red Wolf Energy Trading, LLC	Other Supplier
McAlister	Lisa	American Municipal Power, Inc.	Electric Distributor
Metzler	Jakob	CCI	Not Applicable
Midgley	Sharon	Exelon Business Services Company, LLC	Transmission Owner
Miller	John	Commonwealth Edison Company	Transmission Owner
Nadel	Steven	PPL Electric Utilities Corporation d/b/a PPL Utilities	Transmission Owner
Noewer	Sharon	FirstEnergy Solutions Corp.	Transmission Owner
Olinger	Robert	Gen Ops, LLC	Other Supplier
Ondayko	Brock	Appalachian Power Company	Transmission Owner
Peoples	John	Duquesne Light Company	Transmission Owner
Price	Ruth	Delaware Public Service Commission	Not Applicable



Rainey	Frank	PEI Power Corporation	Generation Owner
Ramsey	James	Suffolk Fund	Other Supplier
Rein	Stuart	Tios Capital	Other Supplier
Richardson	Frank	PPL Electric Utilities Corporation d/b/a PPL Utilities	Transmission Owner
Rothey	Kristin	American Municipal Power, Inc.	Electric Distributor
Rutigliano	Tom	Achieving Equilibrium LLC	Other Supplier
Saini	Ishwar	Macquarie Energy, LLC	Other Supplier
Sasser	Jonathan	Customized Energy Solutions, Ltd.	Not Applicable
Schreim	Morris	Maryland Public Service Commission	Not Applicable
Schuster	Brad	XO Energy MA, L.P.	Other Supplier
Scott	Chance	Northern States Power Company	Other Supplier
Seibel	August	IMG Midstream LLC	Generation Owner
Shanker	Roy	H.Q. Energy Services (U.S.), Inc.	Other Supplier
Staska	Stephanie	Town Square Energy East, LLC	Other Supplier
Stewart	Travis	Gable & Associates	Not Applicable
Stubbe	Judy	Duke Energy Ohio, Inc.	Transmission Owner
Sunseri	Patrick	Chesapeake Trading Group, L.L.C.	Other Supplier
Sweeney	Rory	RTO Insider	Not Applicable
Tangirala	Subhasree	ABB	Not Applicable
Tatum	Erin	Not Applicable	Not Applicable
Theodore	Sharon	Electric Power Supply Association	Not Applicable
Thomas	Glen	GT Power Group	Not Applicable
Thomson	Heather	Mid-Atlantic Renewable Energy Coalition	Not Applicable
Tibbetts	Maeve	Pierce Atwood	Not Applicable
Tripoli	Matthew	IMG Midstream	Generation Owner
Tsao	Stephanie	NRG Power Marketing, LLC	Generation Owner
Vargo	Daniel	Allegheny Electric Cooperative, Inc.	Electric Distributor
Vogel	Anne	Appalachian Power Company	Transmission Owner
Walker	Jennifer	Exelon Business Services Company, LLC	Transmission Owner
Waskiewicz	Michael	Hartree Partners, LP	Other Supplier
Watson	Mark	Platts	Not Applicable
Wilhite	Chad	FirstEnergy Solutions Corp.	Transmission Owner
Williams	Amber	New York State Electric & Gas Corporation	Other Supplier
Wilmoth	Emily	Dominion Energy Marketing, Inc.	Generation Owner
Wilson	James	Wilson Energy Economics	Not Applicable



Wisersky	Megan	Madison Gas & Electric Co.	Other Supplier
Wood	Gordon	ETC Endure Energy, L.L.C.	Other Supplier
Xenopoulos	Damon	SMXB	Not Applicable
York	Catherine	Tennessee Valley Authority (The)	Other Supplier

PJM PARTICIPANTS

Last Name	First Name	Company	Sector
Anders	David	PJM Interconnection, LLC	Not Applicable
Baker	Scott	PJM Interconnection, LLC	Not Applicable
Barrett	Francis	PJM Interconnection, LLC	Not Applicable
Bell	Jerry	PJM Interconnection, LLC	Not Applicable
Berner	Aaron	PJM Interconnection, LLC	Not Applicable
Blackwell	Terry	PJM Board Member	Not Applicable
Boyle	Glen	PJM Interconnection, LLC	Not Applicable
Bressler	Stu	PJM Interconnection, LLC	Not Applicable
Bryson	Mike	PJM Interconnection, LLC	Not Applicable
Budney	David	PJM Interconnection, LLC	Not Applicable
Buehler	Susan	PJM Interconnection, LLC	Not Applicable
Burdis	Tim	PJM Interconnection, LLC	Not Applicable
Burlew	Jim	PJM Interconnection, LLC	Not Applicable
Carroll	Rebecca	PJM Interconnection, LLC	Not Applicable
Chao	Hungpo	PJM Interconnection, LLC	Not Applicable
Ciabattoni	Joe	PJM Interconnection, LLC	Not Applicable
Daugherty	Suzanne	PJM Interconnection, LLC	Not Applicable
Dirani	Rami	PJM Interconnection, LLC	Not Applicable
Drauschak	Lisa	PJM Interconnection, LLC	Not Applicable
Driscoll	Maryellen	PJM Interconnection, LLC	Not Applicable
Duane	Vince	PJM Interconnection, LLC	Not Applicable
Egan	Amanda	PJM Interconnection, LLC	Not Applicable
Fabiano	Janell	PJM Interconnection, LLC	Not Applicable
Falco	Chris	PJM Interconnection, LLC	Not Applicable
Falin	Thomas	PJM Interconnection, LLC	Not Applicable
Fernandez	Ray	PJM Interconnection, LLC	Not Applicable
Flynn	Paul	PJM Interconnection, LLC	Not Applicable
Furnholm	Whitney	PJM Interconnection, LLC	Not Applicable



Hauske	Tom	PJM Interconnection, LLC	Not Applicable
Hendrzak	Chantal	PJM Interconnection, LLC	Not Applicable
Herling	Steve	PJM Interconnection, LLC	Not Applicable
Herman	Michael	PJM Interconnection, LLC	Not Applicable
Horger	Tim	PJM Interconnection, LLC	Not Applicable
Hsia	Eric	PJM Interconnection, LLC	Not Applicable
Hugee	Jacquelynn	PJM Interconnection, LLC	Not Applicable
Keech	Adam	PJM Interconnection, LLC	Not Applicable
Kelley	Mike	PJM Interconnection, LLC	Not Applicable
Kenney	Susan	PJM Interconnection, LLC	Not Applicable
Larocque	Matthew	PJM Interconnection, LLC	Not Applicable
Mathias	Richard	PJM Interconnection, LLC	Not Applicable
McGibbon	Doug	PJM Interconnection, LLC	Not Applicable
McGlynn	Paul	PJM Interconnection, LLC	Not Applicable
McLaverty	Megan	PJM Interconnection, LLC	Not Applicable
Militello	Nicole	PJM Interconnection, LLC	Not Applicable
Monzon	Stephanie	PJM Interconnection, LLC	Not Applicable
Morelli	Lisa	PJM Interconnection, LLC	Not Applicable
Murphy	Shaun	PJM Interconnection, LLC	Not Applicable
Murphy Lee	Lori	PJM Interconnection, LLC	Not Applicable
Nice	Ryan	PJM Interconnection, LLC	Not Applicable
Olaleye	Michael	PJM Interconnection, LLC	Not Applicable
Ott	Andy	PJM Interconnection, LLC	Not Applicable
Patelm	Keyur	PJM Interconnection, LLC	Not Applicable
Phillips	Darlene	PJM Interconnection, LLC	Not Applicable
Pilong	Chris	PJM Interconnection, LLC	Not Applicable
Quintavalla	Ginger	PJM Interconnection, LLC	Not Applicable
Ritchie	Sandra	PJM Interconnection, LLC	Not Applicable
Robinson	Evelyn	PJM Interconnection, LLC	Not Applicable
Rogers	Sarah	PJM Board Member	Not Applicable
Sauerwin	Kim	PJM Interconnection, LLC	Not Applicable
Schmitt	Jeff	PJM Interconnection, LLC	Not Applicable
Schulyer	Ken	PJM Interconnection, LLC	Not Applicable
Schweizer	David	PJM Interconnection, LLC	Not Applicable
Shparber	Steve	PJM Interconnection, LLC	Not Applicable



Slussler	Jeff	PJM Interconnection, LLC	Not Applicable
Snyder	Sue	PJM Interconnection, LLC	Not Applicable
Souder	Michelle	PJM Interconnection, LLC	Not Applicable
Stotesbury	Christina	PJM Interconnection, LLC	Not Applicable
Swimm	Nora	PJM Interconnection, LLC	Not Applicable
Tribulski	Jen	PJM Interconnection, LLC	Not Applicable
Velasco	Cheryl	PJM Interconnection, LLC	Not Applicable
Ward	Michael	PJM Interconnection, LLC	Not Applicable
Weiss	Glenn	PJM Interconnection, LLC	Not Applicable
Williams	Stan	PJM Interconnection, LLC	Not Applicable
Wolfe	Art	PJM Interconnection, LLC	Not Applicable