

Markets and Reliability Committee
PJM Conference and Training Center, Valley Forge, PA
September 28, 2017
9:00 a.m. – 1:00 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 August 24, 2017 meeting of the Markets and Reliability Committee (MRC) were **approved** by acclamation with no objections or abstentions.

2. PJM Manuals

- A. Mr. Ron Deloach presented proposed revisions to Manual 03A: EMS Model Updates and Quality Assurance identified in the periodic review of the manual.
- B. Mr. Brian Chmielewski presented proposed revisions to Manual 6: Financial Transmission Rights associated with FTR Forfeitures.
- C. Ms. Lisa Morelli presented proposed conforming revisions to Manual 11: Energy & Ancillary Services associated with the implementation of Intraday Offers.
- D. Mr. Joe Hay presented proposed updates to Manual 14A: Generation and Transmission Interconnection Process identified in the periodic review of the manual.
- E. Mr. Mike Herman presented proposed revisions to Manual 14B: Regional Transmission Planning Process regarding CETL procedural changes.
- F. Mr. Ray Fernandez presented proposed revisions to Manual 28: Operating Agreement Accounting associated with the implementation of Intraday Offers.

Following discussion, items 2.A, and 2.C, 2.D and 2.F were **endorsed** by acclamation with no objections and one abstention. Item 2.B was **endorsed** in a sector-weighted vote with 4.26 in favor. Item 2.E was **endorsed** by acclamation with 13 objections and four abstentions.

3. Primary Frequency Response Sr. Task Force (PFRSTF)

Mr. Glen Boyle presented the draft charter for the PFRSTF. Following discussion the committee **approved** the proposed charter by acclamation with no objections and no abstentions.

4. Governing Documents Enhancement & Clarification Subcommittee (GDECS)

Ms. Janell Fabiano and Ms. Jennifer Tribulski presented proposed Tariff, OA and Reliability Assurance Agreement revisions regarding clean-up of definitions and other corrections. Following discussion the committee **endorsed** the proposed revisions by acclamation with no objections and no abstentions.

5. Balancing Ratio

Mr. Adam Keech discussed Tariff provisions for calculation of the Balancing Ratio used in determination of the Market Seller Offer Cap to be used in the 2020/2021 Base Residual Auction. The committee will be asked to endorse the proposed Tariff revisions at its next meeting. He presented a proposed Problem Statement and Issue Charge regarding the calculation for following BRAs. Ms. Katie Guerry proposed a friendly amendment to delete the first paragraph under the Stakeholder Group Assignment; this was accepted and therefore it was incorporated into the Issue Charge. Mr. Jim Benchek proposed a friendly amendment to replace "MOSC" with "Market Seller Offer Cap" in Key Work Activity 1; this was accepted and therefore it was incorporated into the Issue Charge. Following discussion the approval of the Problem Statement and Issue Charge was deferred to the committee's next meeting to permit further refinement of the documents.

First Readings

6. Distributed Energy Resources Update

Ms. Chantal Hendrzak discussed current status of the Distributed Energy Resource issue and presented a proposed charter to convert the effort to a subcommittee. The committee will be asked to approve the charter at its next meeting.

7. 2017 Installed Reserve Margin Study Results

Mr. Tom Falin reviewed the 2017 Installed Reserve Margin (IRM) study results. The committee will be asked to endorse the study results at its next meeting.

8. Annual Revenue Requirements for New Black Start Units – Phase 2

Dr. Joe Bowring discussed the Minimum Tank Suction Levels (MTSL) proposal developed as part of Phase 2 for the Annual Revenue Requirements for new Black Start units. Ms. Ruth Ann Price had considered moving to adopt the proposal, however withdrew it from deliberation at this meeting.

9. Restoration Planning Generator Data

Mr. David Schweizer presented proposed Operating Agreement revisions associated with PJM sharing of restoration planning generator data with Transmission Owners. The committee will be asked to endorse the proposed revisions at its next meeting.

10. PJM Manuals

- A. Ms. Lisa Morelli presented proposed Manual 11: Energy & Ancillary Services and proposed revisions to the Operating Agreement (OA) associated with capping of intraday offers. The committee will be asked to endorse the manual and OA revisions at its next meeting.
- B. Ms. Melissa Pilog presented proposed revisions to Manual 11: Energy & Ancillary Services associated with the offer verification process and offer capping logic for the implementation of Order 831: Energy Offer Verification. Dr. Joe Bowring, Monitoring Analytics, Ms. Morelli and Ms. Pilog discussed ongoing dialogue between PJM and the Independent Market Monitor regarding some specific details of the proposed Manual 11 revisions. The committee will be asked to endorse the manual revisions at its next meeting.
- C. Mr. Mike Herman presented proposed revisions to Manual 14B: Regional Transmission Planning Process to add information related to the contingency definitions. The committee will be asked to endorse the proposed revisions at its next meeting.
- D. Mr. John Reynolds presented proposed revisions to Manual 19: Load Forecasting and Analysis to clarify when load drop estimates are produced and the required periodic review of the Manual. The committee will be asked to endorse the proposed revisions at its next meeting.

Informational Updates

Warm Weather Operations

Mr. Adam Keech discussed warm weather operations from September 21, 2017. He indicated that additional analysis will be shared with the Operating Committee at its October 10, 2017 meeting.

Offer Verification Exercise

Ms. Jennifer Freeman provided an overview of the planned Offer Verification Exercise planned for October 5, 2017.

Winter Resource Adequacy Problem Statement and Issue Charge

Mr. Tom Falin discussed the current status of work performed under the Winter Resource Adequacy Problem Statement and Issue Charge. A more complete discussion of the technical aspects of the work will be held at the committee's next meeting.

11. Preliminary 2018 Project Budget

Mr. Jim Snow discussed the preliminary 2018 project budget.

12. Capacity Construct / Public Policy Sr. Task Force (CCPPSTF)

Mr. Dave Anders provided an informational update on the activities of the CCPPSTF.

13. Incremental Auction Sr. Task Force (IASTF)

Mr. Brian Chmielewski provided an update on the activities of the IASTF. He reported that the IASTF had recently taken a binding vote on existing Phase 1 proposals in which no proposal received simple majority support. The task force members expressed interest in continuing to work toward development of additional proposals. Following discussions there were no objections expressed to endorsing the IASTF to continue work on development of Phase 1 proposals.

14. Retirement of Yards Creek Special Protection Scheme

Mr. Evan Ferrell, FirstEnergy, presented information related to the retirement of the Yards Creek Special Protection Scheme.

15. Retirement of Aurora Energy Center Remedial Action Scheme

Mr. Alan Engelmann, ComEd, presented information related to the retirement of the Aurora Energy Center Remedial Action Scheme.

Future Agenda Items

No new future agenda items were identified.

Future Meeting Dates

October 26, 2017	9:00 a.m.	Wilmington, DE
December 7, 2017	9:00 a.m.	Philadelphia, PA
December 21, 2017	9:30 a.m.	Wilmington, DE

Author: D. A. Anders

CHAIR/SECRETARY		Company	Sector
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
Benckek	Jim	American Transmission Systems, Inc.	Transmission Owner
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
Davis	James	Virginia Electric & Power Company	Transmission Owner
Dugan	Chuck	East Kentucky Power Cooperative, Inc.	Transmission Owner
Evrard	David	Pennsylvania Office of Consumer Advocate	End User Customer
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	Wylan Energy	Other Supplier
Fuess	Jay	Diamond State Generation Partners, LLC	Generation Owner
Fuess	Jay	Icetec.com, Inc.	Other Supplier
Fuess	Jay	Kuehne Chemical Company, Inc.	Other Supplier
Fuess	Jay	PBF Power Marketing, LLC	Generation Owner
Garnett	Bryan	Duke Energy Business Services LLC	Transmission Owner
Greening	Michele	PPL Electric Utilities Corporation d/b/a PPL Utilities	Transmission Owner
Guerry	Katie	EnerNOC, Inc.	Other Supplier
Hastings	David	Aspirity Energy, LLC	Other Supplier
Hastings	David	Mercuria Energy America, Inc.	Other Supplier
Hastings	David	MICS	Other Supplier
Hastings	David	Northstar Trading Ltd.	Other Supplier
Hastings	David	Saracen Energy East, L.P.	Other Supplier
Hastings	David	SESCO Enterprises, LLC	Other Supplier
Hastings	David	Solios Power Mid-Atlantic Trading, LLC	Other Supplier
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
Horton	Dana	Appalachian Power Company	Transmission Owner
Hurwich	Mark	Elliott Bay Energy Trading LLC	Other Supplier

Hyzinski	Thomas	Dynegy Marketing and Trade, LLC	Generation Owner
Jardot	Gina	Essential Power Rock Springs, LLC	Transmission Owner
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
Kelly	Stephen	Brookfield	Other Supplier
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
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
Philips	Marji	Direct Energy Business, LLC	Other Supplier
Philips	Marji	Newark Energy Center, 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	West Virginia Consumer Advocate Division	End User Customer
Pratzon	David	Eastern Generation, LLC	Generation Owner
Pratzon	David	Wheelabrator Frackville Energy Co., Inc.	Generation Owner
Prokop	Brenda	ITC Interconnection LLC	Transmission Owner
Rohrbach	John	Southern Maryland Electric Cooperative, Inc.	Electric Distributor
Rohrbach	John	Wabash Valley Power Association, Inc.	Electric Distributor
Rushing	Nathan	CPV Power Holdings, LP	Generation Owner
Rushing	Nathan	Homer City Generation, L.P.	Generation Owner
Scarpignato	David	Calpine Energy Services, L.P.	Generation Owner
Skucas	Ruta	Aeon Energy Trading LLC	Other Supplier
Skucas	Ruta	Alphataraxia Palladium LLC	Other Supplier
Skucas	Ruta	Ames Energy, LLC	Other Supplier
Skucas	Ruta	Big Bend Trading, LLC	Other Supplier
Skucas	Ruta	BJ Energy, LLC	Other Supplier
Skucas	Ruta	Boston Energy Group, Inc.	Other Supplier
Skucas	Ruta	Dufossat Capital I, LLC	Other Supplier
Skucas	Ruta	Endurance Energy Midwest LLC	Other Supplier
Skucas	Ruta	Energya VM Gestion de Energia S.L.U.	Other Supplier
Skucas	Ruta	Falcon Energy, LLC	Other Supplier
Skucas	Ruta	Great Bay Energy III, LLC	Other Supplier
Skucas	Ruta	Greene Energy NE LLC	Other Supplier
Skucas	Ruta	Hexis Energy Trading, LLC	Other Supplier
Skucas	Ruta	Liberty Hill Power, LLC	Other Supplier
Skucas	Ruta	Mac Trading, Inc.	Other Supplier
Skucas	Ruta	MAG Energy Solutions, Inc.	Other Supplier
Skucas	Ruta	Monterey MA, LLC	Other Supplier
Skucas	Ruta	Precept Power LLC	Other Supplier
Skucas	Ruta	Pure Energy, Inc.	Other Supplier
Skucas	Ruta	Red Wolf Energy Trading, LLC	Other Supplier
Skucas	Ruta	RJUMR Energy Partners Corp.	Other Supplier
Skucas	Ruta	Southard Energy Partners LLC	Other Supplier
Skucas	Ruta	Taller Cube, LLC	Other Supplier
Skucas	Ruta	Velocity American Energy Master I, L.P.	Other Supplier
Skucas	Ruta	XO Energy MA, L.P.	Other Supplier
Skucas	Ruta	Yasmin Partners LLC	Other Supplier
Stern	Alex	Public Service Electric & Gas Company	Transmission Owner
Thompson	Matthew	XO Energy	Other Supplier
Trayers	Barry	Citigroup Energy, Inc.	Other Supplier
Vayda	Brian	Borough of Butler, Butler Electric Division	Electric Distributor
Vayda	Brian	Borough of Lavallette, New Jersey	Electric Distributor
Vayda	Brian	Borough of Madison, New Jersey	Electric Distributor
Vayda	Brian	Borough of Milltown, New Jersey	Electric Distributor

Vayda	Brian	Borough of Park Ridge, New Jersey	Electric Distributor
Vayda	Brian	Borough of Seaside Heights, New Jersey	Electric Distributor
Vayda	Brian	Borough of South River, New Jersey	Electric Distributor
Vayda	Brian	Vineland Municipal Electric Utility	Electric Distributor
Wicks	Tonja	Duquesne Light Company	Transmission Owner
Wilkie	Brian	Rockland Electric Company	Transmission Owner
Yu	Joel	Rockland Electric Company	Transmission Owner

NON-VOTING PARTICIPANTS

Last Name	First Name	Company	Sector
Anderson	Jared	Platts	Not Applicable
Bearden	Joel	XO Energy MA, L.P.	Other Supplier
Bickerstaff	Dean	Hartree Partners, LP	Other Supplier
Bolan	Martin	FirstEnergy Solutions Corp.	Transmission Owner
Borgatti	Michael	Gabel Associates	Not Applicable
Bowring	Joe	Monitoring Analytics	Not Applicable
Brodbeck	John	EDP Renewables North America, LLC	Generation Owner
Campbell	Bruce	Enerwise Global Technologies, Inc.	Other Supplier
Chintapalli	Raj	BP Energy	Other Supplier
Cockrell	Justin	VECO Power Trading	Other Supplier
Cox	Phil	American Electric Power, Inc.	Not Applicable
Dasher	Brett	The Energy Authority, Inc.	Other Supplier
Delosa	Joe	Delaware Public Service Commission	Not Applicable
Depillo	Ray	Public Service Electric & Gas Company	Transmission Owner
Dillon	Matt	UGI Development	Transmission Owner
Domian	Christin	Duquesne Light Company	Transmission Owner
Douglass	Robert	Exelon Business Services	Transmission Owner
Evan	Ferrell	FirstEnergy Corp.	Not Applicable
Farber	John	Delaware Public Service Commission	Not Applicable
Feierabend	Rick	Dominion Energy Generation Market, Inc.	Generation Owner
Filomena	Guy	Customized Energy Solutions	Not Applicable
Foxen	Timothy	Osaka Gas USA	Not Applicable
Gebolys	Debbie	Public Utilities Commission of Ohio (The)	Not Applicable
Gilani	Rehan	ConEdison Energy	Other Supplier
Godson	Gloria	Exelon Business Services	Transmission Owner
Hanser	Erik	Michigan Public Service Commission	Not Applicable
Haring	Michael	Optiv	Not Applicable
Harmon	Mike	Ameren	Not Applicable
Hastings	David	MICS	Not Applicable
Heinle	Frederick	DC OPC	End User Customer
Henry	Michelle	FirstEnergy Solutions Corp.	Transmission Owner

Hitch	George	Dominion Energy Generation Market, Inc.	Generation Owner
Horning	Lynn	LMH Energy Consulting	Not Applicable
Huntoon	Stephen	Energy Counsel LLP	Not Applicable
Hurwich	Mark	Elliott Bay Energy Trading LLC	Other Supplier
Hyatt	John	Monitoring Analytics	Not Applicable
Janicki	Diane	Boston Energy Trading and Marketing LLC	Generation Owner
Jones	Ryan	Allegheny Electric Cooperative, Inc.	Electric Distributor
Josyula	Siva	Monitoring Analytics	Not Applicable
Kaczanowski	Marek	Baltimore Gas & Electric	Transmission Owner
Kauffman	Brian	NRG Distributed Energy Resource	Generation Owner
Kelly	Stephen	Brookfield Energy Marketing LP	Other Supplier
Khadr	Esam	Public Service Electric & Gas Company	Transmission Owner
Kingston	Amber	ACES	Not Applicable
Kinser	Cynthia	Tennessee Attorney General	Not Applicable
Leasure	Jill	GenOn Energy Management, LLC	Generation Owner
Logan	Sharon	Federal Energy Regulatory Commission	Not Applicable
Long	Scott	Allegheny Electric Cooperative	Electric Distributor
Mabry	Dave	MWN	Not Applicable
Martin	Valerie	Federal Energy Regulatory Commission	Not Applicable
McDaniel	John	Baltimore Gas & Electric	Transmission Owner
McDonald	Steve	Customized Energy Solutions	Not Applicable
Merola	Becky	Calpine Solutions	Other Supplier
Midgley	Sharon	Exelon Business Services	Transmission Owner
Miller	John	CoMed	Transmission Owner
Moncayo	Jorge	Federal Energy Regulatory Commission	Not Applicable
Moncayo	George	Federal Energy Regulatory Commission	Not Applicable
Ondayko	Brock	Appalachian Power Company	Transmission Owner
Patten	Kevin	Appalachian Power Company	Transmission Owner
Peoples	John	Duquesne Light Company	Transmission Owner
Price	RuthAnn	Delaware Division of the Public Advocate	End User Customer
Rainey	Frank	PEI Power Corporation	Generation Owner
Rajan	Abhijit	Virginia Electric & Power Company	Transmission Owner
Rayhorn	Carolyn	Dominion Energy Generation Marketing, Inc.	Generation Owner
Read	Ryan	ACES Power Marketing	Not Applicable
Reams	William	Allegheny Electric Cooperative	Electric Distributor
Rohrbach	John	Southern Maryland Electric Cooperative	Electric Distributor
Ruck	Andrew	Public Service Electric & Gas Company	Transmission Owner
Sasser	Jonathan	Customized Energy Solutions	Not Applicable
Schneider	Jonathan	FirstEnergy Solutions Corp.	Transmission Owner
Schreim	Morris	Maryland Public Service Commission	Not Applicable
Schum	Alice	Illinois Municipal Electric Agency	Electric Distributor
Shanker	Roy	East Coast Power	Generation Owner
Sillin	John	Federal Energy Regulatory Commission	Not Applicable

Singer	Chad	Trane	
Skucas	Ruta	Pierce Atwood	Not Applicable
Sock	Bryan	Public Service Electric & Gas Company	Transmission Owner
Steele	Bob	Hyllgarth Energy	
Stone	Andy	Gabel Associates	Not Applicable
Sweeney	Rory	RTO Insider	Not Applicable
Tangirala	Subha	ABB	Not Applicable
Tatum	Ed	AMP	Electric Distributor
Thomas	Glen	GT Power Group	Not Applicable
Thomson	Heather	MAREC	Not Applicable
Tibbetts	Maeve	Pierce Atwood	Not Applicable
Tsao	Stephanie	S&P Global	Not Applicable
Tyler	Catherine	Monitoring Analytics	Not Applicable
Valerie	Martin	Federal Energy Regulatory Commission	Not Applicable
Vargo	Daniel	Allegheny Electric Cooperative	Electric Distributor
Walker	Jennifer	Exelon Business Services	Transmission Owner
Whitehead	Jeffrey	GT Power Group	Not Applicable
Williams	Amber	NYSEG	Other Supplier
Wilmoth	Emily	Dominion Energy	Generation Owner
Wilson	James	Wilson Energy Economics	Not Applicable
Xenopoulos	Damon	SMXB	Not Applicable

PJM Attendees

Abt	Jason	PJM Interconnection	Not Applicable
Baker	Scott	PJM Interconnection	Not Applicable
Barr	Nicole	PJM Interconnection	Not Applicable
Barrett	Francis	PJM Interconnection	Not Applicable
Berner	Aaron	PJM Interconnection	Not Applicable
Boyle	Glen	PJM Interconnection	Not Applicable
Brown	Rich	PJM Interconnection	Not Applicable
Bruno	Patrick	PJM Interconnection	Not Applicable
Budney	David	PJM Interconnection	Not Applicable
Buehler	Susan	PJM Interconnection	Not Applicable
Burdis	Tim	PJM Interconnection	Not Applicable
Burns	Gregory	PJM Interconnection	Not Applicable
Carroll	Rebecca	PJM Interconnection	Not Applicable
Chmielewski	Brian	PJM Interconnection	Not Applicable
Connell	Jason	PJM Interconnection	Not Applicable
Coyne	Suzanne	PJM Interconnection	Not Applicable
Croop	Danielle	PJM Interconnection	Not Applicable
DeLoach	Ron	PJM Interconnection	Not Applicable
Demardino	Denise	PJM Interconnection	Not Applicable

Dotter	Ray	PJM Interconnection	Not Applicable
Drauschak	Lisa	PJM Interconnection	Not Applicable
Driscoll	MaryEllen	PJM Interconnection	Not Applicable
Egan	Dave	PJM Interconnection	Not Applicable
Endress	Eric	PJM Interconnection	Not Applicable
Fabiano	Janell	PJM Interconnection	Not Applicable
Falin	Tom	PJM Interconnection	Not Applicable
Fernandez	Ray	PJM Interconnection	Not Applicable
Foster	Denise	PJM Interconnection	Not Applicable
Franks	Chris	PJM Interconnection	Not Applicable
Furnholm	Whitney	PJM Interconnection	Not Applicable
Glazer	Craig	PJM Interconnection	Not Applicable
Gledhill	Andrew	PJM Interconnection	Not Applicable
Hauske	Thomas	PJM Interconnection	Not Applicable
Hay	Joseph	PJM Interconnection	Not Applicable
Hendrzak	Chantal	PJM Interconnection	Not Applicable
Herling	Steven	PJM Interconnection	Not Applicable
Herman	Michael	PJM Interconnection	Not Applicable
Holland	Risa	PJM Interconnection	Not Applicable
Horger	Tim	PJM Interconnection	Not Applicable
Hugee	Jacquelynn	PJM Interconnection	Not Applicable
Keech	Adam	PJM Interconnection	Not Applicable
Kelley	Michael	PJM Interconnection	Not Applicable
Kenny	Susan	PJM Interconnection	Not Applicable
Kern	Jonathan	PJM Interconnection	Not Applicable
Kimmel	David	PJM Interconnection	Not Applicable
Koza	Frank	PJM Interconnection	Not Applicable
Langbein	Pete	PJM Interconnection	Not Applicable
Larocque	Matthew	PJM Interconnection	Not Applicable
Lee	Jin	PJM Interconnection	Not Applicable
Long	Amanda	PJM Interconnection	Not Applicable
Manion	Evelyn	PJM Interconnection	Not Applicable
McGlynn	Paul	PJM Interconnection	Not Applicable
McLaverty	Megan	PJM Interconnection	Not Applicable
Monzon	Stephanie	PJM Interconnection	Not Applicable
Mooney	Molly	PJM Interconnection	Not Applicable
Morelli	Lisa	PJM Interconnection	Not Applicable
Murphy Lee	Lori	PJM Interconnection	Not Applicable
O'Hara	Chris	PJM Interconnection	Not Applicable
O'Neill	Jack	PJM Interconnection	Not Applicable
Ott	Andrew	PJM Interconnection	Not Applicable
Pacella	Chris	PJM Interconnection	Not Applicable
Patel	Anita	PJM Interconnection	Not Applicable

Patel	Keyur	PJM Interconnection	Not Applicable
Perera	Asanga	PJM Interconnection	Not Applicable
Pilong	Chris	PJM Interconnection	Not Applicable
Quevada	Jason	PJM Interconnection	Not Applicable
Rainer	Keith	PJM Interconnection	Not Applicable
Reynolds	John	PJM Interconnection	Not Applicable
Ritchie	Sandra	PJM Interconnection	Not Applicable
Rogers	Sarah	PJM Interconnection	Not Applicable
Salmon	Lisa	PJM Interconnection	Not Applicable
Schneider	Howard	PJM Interconnection	Not Applicable
Schuyler	Ken	PJM Interconnection	Not Applicable
Schweizer	David	PJM Interconnection	Not Applicable
Seiler	Ken	PJM Interconnection	Not Applicable
Sims	Mark	PJM Interconnection	Not Applicable
Slusser	Jeff	PJM Interconnection	Not Applicable
Snow	Jim	PJM Interconnection	Not Applicable
Souder	Michelle	PJM Interconnection	Not Applicable
Stadlmeyer	Rebecca	PJM Interconnection	Not Applicable
Stefanowicz	Vincent	PJM Interconnection	Not Applicable
Stout	Joseph	PJM Interconnection	Not Applicable
Swimm	Nora	PJM Interconnection	Not Applicable
Tribulski	Jennifer	PJM Interconnection	Not Applicable
Velasco	Cheryl	PJM Interconnection	Not Applicable
Ward	Michael	PJM Interconnection	Not Applicable
Warshel	Kim	PJM Interconnection	Not Applicable