

**Markets and Reliability Committee**  
**PJM Conference and Training Center, Valley Forge, PA**  
**December 19, 2019**  
**9:00 a.m. – 12:30 p.m. EPT**

## Administration

Mr. Stu Bresler and Mr. Dave Anders welcomed stakeholders and provided the Anti-trust and Code of Conduct announcements. Mr. Bresler noted the retirement of Mr. Fran Barrett and Mr. Stan Williams and thanked them for their many contributions to PJM and stakeholders.

## Consent Agenda

Ms. Amber Thomas, PPL, requested that Item A be removed from the Consent Agenda for separate consideration. Ms. Thomas proposed a friendly amendment to the minutes of the December 5, 2019 meeting to reflect discussion at that meeting regarding the accuracy of AMP presentation materials associated with the then proposed Problem Statement and Issue Charge addressing transmission asset end of life processes, as well statements made by PJM. Mr. Erik Heinle, DC Office of the Peoples' Counsel, objected to the proposed amendment, and therefore it was not incorporated in the minutes. Following discussion, Item A, the minutes of the December 5, 2019 meeting, were **approved** as posted in a sector-weighted vote with 3.96 in favor. Mr. Bresler indicated that PJM will add a Disclaimer on PJM.com reflecting that posting on PJM.com of documents generated by stakeholders does not imply endorsement by PJM.

Mr. Ray Fernandez noted that the Manual 27 revisions in Item E were updated to remove “or Non-Firm” from section 6.2.4. Items B through E were **endorsed** by acclamation with no objections and one abstention (Item E).

- A. Minutes of the December 5, 2019 meeting of the Markets and Reliability Committee (MRC).
- B. Proposed revisions to PJM Manual 13: Emergency Operations incorporating event analysis updates.
- C. Proposed revisions to PJM Manual 14D: Generator Operational Requirements to add guidance associated with Distributed Energy Resource ride through.
- D. Proposed revisions to Manual 14G: Generation Interconnection Requests, Section 2.2 regarding projects applying for interconnection under Tariff Attachment Y.
- E. Proposed revisions to Manual 27: Open Access Transmission Tariff Accounting addressing the implementation of the annual calculation of the Border Rate and the impact on firm point-to-point transmission service charges.

## Endorsements/Approvals

### 1. FTR Product Range and Auction Process

Mr. Tim Horger reviewed proposed revisions to the Operating Agreement and Manual 6: Financial Transmission Rights related to the Financial Risk Mitigation Senior Task Force (FRMSTF) endorsed solution package for FTR Product Range and Auction Process. Following discussion, the proposed revisions were **endorsed** by acclamation with seven objections and no abstentions.

[Issue Tracking: Financial Risk Mitigation](#)

### 2. Competitive Transmission Proposal Fee

Mr. Mark Sims reviewed revisions to the Operating Agreement to implement changes to the competitive transmission proposal fee structure. Following discussion, the proposed revisions were **endorsed** by acclamation with one objection and no abstentions.

### 3. Comparative Cost Framework

Mr. Mark Sims reviewed the Comparative Cost Framework proposed revisions to PJM Manual 14F: Competitive Planning Process related to the cost commitment process. Mr. Alex Stern, PSEG, presented procedural options on behalf of the PJM Transmission Owners. Following discussion, the proposed revisions were **endorsed** in a sector-weighted vote with 3.92 in favor.

[Issue Tracking: Consideration of Cost Containment](#)

### 4. Real-Time Values Problem Statement and Issue Charge

Ms. Susan Kenney reviewed a proposed Problem Statement and Issue Charge addressing a review of Real Time Values Market Rules. Following discussion, the proposed Issue Charge was **approved** by acclamation with no objections or abstentions.

### 5. Governing Document Revisions for Parameter Limited Schedules

Mr. Adam Keech reviewed proposed Tariff and Operating Agreement revisions regarding the use of market-based Parameter Limited Schedules. Following discussion, the proposed revisions were **endorsed** in a sector-weighted vote with 4.67 in favor.

### 6. Modeling Generation Senior Task Force (MGSTF)

Mr. Stan Williams provided an overview of the Modeling Generation Senior Task Force recommended long-term implementation plan with near-term implementation proposals. Following discussion, the MGSTF's recommendations regarding hourly differentiated ramp rates and additional segments were **endorsed** by acclamation with no objections or abstentions. Mr. Bob O'Connell, PPGI Funds, moved and Mr. Gary Greiner, PSEG, seconded deferring vote on the MGSTF's recommendation regarding soak time to the January 2020 MRC meeting. The motion to defer was **approved** by acclamation with no objections or abstentions.

## 7. Fuel Security Senior Task Force (FSSTF)

Mr. Tim Horger discussed the activities of the Fuel Security Senior Task Force and the proposed recommended path forward. Mr. O’Connell moved and Mr. Ken Foladare, Geenix Solar, seconded that PJM continue to monitor parameters considered in the fuel security analysis and revisit with stakeholders as necessary. Ms. Susan Bruce, PJM Industrial Customer Coalition, offered a friendly amendment to require reporting to the MRC not less frequently than every 18 months. Mr. O’Connell and Mr. Foladare accepted the friendly amendment and therefore it was incorporated into the motion. Following discussion, the motion was **approved** in a sector-weighted vote with 4.50 in favor. Mr. Heinle moved and Mr. O’Connell seconded sunsetting the FSSTF. The motion was **approved** by acclamation with three objections and no abstentions.

### First Readings

## 8. Market Participation Risk Evaluation Enhancements

Ms. Nigeria Bloczynski provided an overview of the proposals developed by the Financial Risk Mitigation Sr. Task Force related to best practices in financial risk management, along with associated Tariff and Operating Agreement revisions. The committee will be asked to endorse the revisions at its next meeting. Members Committee endorsement will be sought on the same day.

## 9. PJM Manuals

A. Mr. Robert Dropkin reviewed proposed revisions to PJM Manual 38: Operations Planning including updates from the periodic cover-to-cover review and updated procedures. The committee will be asked to endorse the revisions at its next meeting.

### Informational Reports

None

### Informational Postings Only

None

### Future Agenda Items

No additional future agenda items were identified.

### Future Meeting Dates

January 23, 2020	9:00 a.m.	PJM Conference & Training Center/ WebEx
February 20, 2020	9:00 a.m.	PJM Conference & Training Center/ WebEx
March 26, 2020	9:00 a.m.	PJM Conference & Training Center/ WebEx
April 30, 2020	9:00 a.m.	PJM Conference & Training Center/ WebEx
May 28, 2020	9:00 a.m.	PJM Conference & Training Center/ WebEx
June 18, 2020	9:00 a.m.	PJM Conference & Training Center/ WebEx
July 23, 2020	9:00 a.m.	PJM Conference & Training Center/ WebEx
August 20, 2020	9:00 a.m.	PJM Conference & Training Center/ WebEx
September 17, 2020	9:00 a.m.	PJM Conference & Training Center/ WebEx
October 29, 2020	9:00 a.m.	PJM Conference & Training Center/ WebEx

November 19, 2020  
December 17, 2020

9:00 a.m.  
9:00 a.m.

PJM Conference & Training Center/ WebEx  
PJM Conference & Training Center/ WebEx

Author: D.A. Anders

## Attendance

### Secretary/Facilitator

Last Name	First Name	Company	Sector
Anders	David	PJM Interconnection, LLC	None
Bresler	Stu	PJM Interconnection, LLC	None

### Voting Attendees

Last Name	First Name	Company	Sector
Barker	Jason	Exelon Business Services Company, LLC	Transmission Owner
Benchek	Jim	American Transmission Systems, Inc.	Transmission Owner
Bleiweis	Bruce	DC Energy, LLC	Other Supplier
Borgatti	Michael	Rep.'g Carolina Solar Energy III, LLC	Other Supplier
Borgatti	Michael	Rep.'g Covanta Energy Group, LLC	Generation Owner
Borgatti	Michael	Rep.'g Edgcombe Genco, LLC	Generation Owner
Borgatti	Michael	Rep.'g Hazleton Generation, LLC	Generation Owner
Borgatti	Michael	Rep.'g Hill Top 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	Other Supplier
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-Use Customer
Bruce	Susan	Rep.'g ArcelorMittal USA LLC	End-Use 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-Use Customer
Bruce	Susan	Rep.'g Letterkenny Industrial Development Authority - PA	Electric Distributor
Bruce	Susan	Rep.'g MeadWestvaco Corporation	End-Use Customer
Bruce	Susan	Rep.'g Messer LLC	End-Use Customer
Bruce	Susan	Rep.'g Praxair, Inc.	End-Use Customer
Bruce	Susan	Rep.'g Procter & Gamble Paper Products Company (The)	Generation Owner
Bruce	Susan	Rep.'g Trustees of the University of Pennsylvania	End-Use Customer
Bruce	Susan	Rep.'g Wellsboro Electric Company	Electric Distributor

Last Name	First Name	Company	Sector
Campbell	Bruce	MidAtlantic Power Partners, LLC	Other Supplier
Chang	Sean	Shell Energy North America (US), L.P.	Other Supplier
Crystle	Gil	UGI Development Company	Generation Owner
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-Use Customer
Fitch	Neal	NRG Power Marketing, LLC	Generation Owner
Ford	Adrien	Old Dominion Electric Cooperative	Electric Distributor
Fuess	Christian	Rep.'g Diamond State Generation Partners, LLC	Generation Owner
Fuess	Christian	Rep.'g Ictec.com, Inc.	Other Supplier
Fuess	Christian	Rep.'g Kuehne Chemical Company, Inc.	Other Supplier
Fuess	Christian	Rep.'g NextPower III US Holdco Inc.	Generation Owner
Fuess	Christian	Rep.'g PBF Power Marketing, LLC	Generation Owner
Garnett	Bryan	Duke Energy Business Services LLC	Transmission Owner
Gibbs	Ike	Citadel FNGE Ltd.	Other Supplier
Greiner	Gary	Public Service Electric & Gas Company	Transmission Owner
Hastings	David	Rep.'g Northstar Trading Ltd.	Other Supplier
Hastings	David	Rep.'g Saracen Energy East, L.P.	Other Supplier
Hastings	David	Rep.'g SESCO Enterprises, LLC	Other Supplier
Hastings	David	Rep.'g Solios Power Mid-Atlantic Trading, LLC	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	Rep.'g Carroll County Energy LLC	Generation Owner
Hyzinski	Thomas	Rep.'g Dynegy Marketing and Trade, LLC	Generation Owner
Hyzinski	Thomas	Rep.'g GenOn Energy Management, LLC	Generation Owner
Islam	Lubaba	Rockland Electric Company	Transmission Owner
Janicki	Diane	Boston Energy Trading and Marketing LLC	Other Supplier
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

Last Name	First Name	Company	Sector
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 Pennsylvania (The)	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 Number 1	Other Supplier
Johnson	Carl	Rep.'g Northern Illinois Municipal Power Agency	Electric Distributor
Johnson	Carl	Rep.'g Northern Virginia Electric Cooperative (NOVEC)	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
Kauffman	Brian	Enel X North America, Inc.	Other Supplier
Keenan	Matthew	Elwood Energy, LLC	Generation Owner
Kelly	Stephen	Brookfield Renewable Trading and 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
O'Connell	Robert	Rep.'g Mercuria Energy America, Inc.	Other Supplier
O'Connell	Robert	PPGI Fund A/B Development, LLC.	Generation Owner
Pakela	Greg	DTE Energy Trading, Inc.	Other Supplier
Pelletier	Eveline	H.Q. Energy Services (U.S.), Inc.	Other Supplier
Poulos	Greg	Rep.'g Consumer Protection and Advocate Division of the Tennessee Attorney General	End-Use Customer
Poulos	Greg	Rep.'g Delaware Division of the Public Advocate	End-Use Customer
Poulos	Greg	Rep.'g Illinois Citizen Utility Board	End-Use Customer
Poulos	Greg	Rep.'g Indiana Office of Utility Consumer Counselor (IN OUCC)	End-Use Customer
Poulos	Greg	Rep.'g Maryland Office of People's Counsel	End-Use Customer
Poulos	Greg	Rep.'g Michigan Department of Attorney General, Environment, Natural Resources, & Agriculture Division	End-Use Customer
Poulos	Greg	Rep.'g New Jersey Division of Rate Counsel	End-Use Customer
Poulos	Greg	Rep.'g Office of the Attorney General, Kentucky	End-Use Customer
Poulos	Greg	Rep.'g Office of the People's Counsel for the District of Columbia	End-Use Customer
Poulos	Greg	Rep.'g Ohio Consumers' Counsel	End-Use Customer
Poulos	Greg	Rep.'g Public Staff - North Carolina Utilities Commission	End-Use Customer

Last Name	First Name	Company	Sector
Poulos	Greg	Rep.'g Virginia Division of Consumer Counsel	End-Use Customer
Poulos	Greg	Rep.'g West Virginia Consumer Advocate Division	End-Use Customer
Robichaud	Donna	Geenex Solar LLC	Generation Owner
Rohrbach	John	Rep.'g Kentucky Municipal Energy Agency	Other Supplier
Rohrbach	John	Rep.'g Southern Maryland Electric Cooperative, Inc.	Electric Distributor
Rohrbach	John	Rep.'g Wabash Valley Power Association, Inc.	Electric Distributor
Scarpignato	David	Calpine Energy Services, L.P.	Generation Owner
Skucas	Ruta	Rep.'g Alphataraxia Palladium LLC	Other Supplier
Skucas	Ruta	Rep.'g Ames Energy, 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 Boston Energy Group, Inc.	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 Greene Energy NE LLC	Other Supplier
Skucas	Ruta	Rep.'g Hexis Energy Trading, LLC	Other Supplier
Skucas	Ruta	Rep.'g MAG Energy Solutions, Inc.	Other Supplier
Skucas	Ruta	Rep.'g Monterey MA, LLC	Other Supplier
Skucas	Ruta	Rep.'g Precept Power LLC	Other Supplier
Skucas	Ruta	Rep.'g Pure Energy, Inc.	Other Supplier
Skucas	Ruta	Rep.'g Red Wolf PT, LLC	Other Supplier
Skucas	Ruta	Rep.'g Taller Cube, LLC	Other Supplier
Skucas	Ruta	Rep.'g Velocity American Energy Master I, L.P.	Other Supplier
Skucas	Ruta	Rep.'g XO Energy MA, L.P.	Other Supplier
Thomas	Amber	PPL Electric Utilities Corporation d/b/a PPL Utilities	Transmission Owner
Vayda	Brian	Rep.'g Borough of Butler, Butler Electric Division	Electric Distributor
Vayda	Brian	Rep.'g Borough of Lavallette, New Jersey	Electric Distributor
Vayda	Brian	Rep.'g Borough of Madison, New Jersey	Electric Distributor
Vayda	Brian	Rep.'g Borough of Milltown, New Jersey	Electric Distributor
Vayda	Brian	Rep.'g Borough of Park Ridge, New Jersey	Electric Distributor
Vayda	Brian	Rep.'g Borough of Pemberton, New Jersey	Electric Distributor
Vayda	Brian	Rep.'g Borough of Seaside Heights, New Jersey	Electric Distributor
Vayda	Brian	Rep.'g Borough of South River, New Jersey	Electric Distributor
Vayda	Brian	Rep.'g Vineland Municipal Electric Utility	Electric Distributor
Wadsworth	Joe	Vitol Inc.	Other Supplier
Whitehead	Jeffrey	Rep.'g Direct Energy Business, LLC	Other Supplier
Whitehead	Jeffrey	Rep.'g Eastern Generation, LLC	Generation Owner

Last Name	First Name	Company	Sector
Whitehead	Jeffrey	Rep.'g Essential Power Rock Springs, LLC	Generation Owner
Whitehead	Jeffrey	Rep.'g Wheelabrator Frackville Energy Co., Inc.	Generation Owner
Wicks	Tonja	Duquesne Light Company	Transmission Owner

#### Non-Voting Attendees

Last Name	First Name	Company	Sector
Abend	Erik	TransAlta Energy Marketing (U.S.) Inc.	Other Supplier
Adams	Darrin	East Kentucky Power Cooperative, Inc.	Transmission Owner
Ainspan	Malcolm	NRG Power Marketing, LLC	Generation Owner
Bainbridge	Thomas	FirstEnergy Solutions Corp.	Transmission Owner
Bayless	Charlie	North Carolina Electric Membership Corporation	Electric Distributor
Bockhorn	Tim	AES Energy Storage, LLC	Generation Owner
Branch	John	St. Joseph Energy Center, LLC	Generation Owner
Canter	David	Appalachian Power Company	Transmission Owner
Carmean	Gregory	OPSI	None
Carrado	Regina	Exelon Business Services Company, LLC	Transmission Owner
Chandler	Kent	The Kentucky Public Service Commission	None
Cocco	Michael	Old Dominion Electric Cooperative	Electric Distributor
Collins	Ryan	Wright Law	None
Crystle	Gil	UGI Energy Services, LLC	Other Supplier
Dadourian	John	Monitoring Analytics	None
D'Alessandris	Lou	FirstEnergy Solutions Corp.	Transmission Owner
Dasher	Brett	Energy Authority, Inc. (The)	Other Supplier
DeLosa	Joseph	New Jersey Board of Public Utilities	None
DePillo	Raymond	Public Service Electric & Gas Company	Transmission Owner
Dillon	Matthew	UGI Energy Services, LLC	Other Supplier
Domian	Christin	Duquesne Light Company	Transmission Owner
Drom	Richard	Affirmed Energy LLC	Other Supplier
Duensing	Allison	Saracen Energy East, L.P.	Other Supplier
Durinsky	Mike	FirstEnergy Solutions Corp.	Transmission Owner
Fazio	Danielle	Engelhart CTP (US) LLC	Other Supplier
Feller	John	PPL Electric Utilities Corporation d/b/a PPL Utilities	Transmission Owner
Filomena	Guy	Customized Energy Solutions, Ltd.*	None
Foladare	Kenneth	Geenex Solar LLC	Generation Owner
Foley	Imelda	University of Delaware	None
Gahimer	Michael	Indiana Office of Utility Consumer Counselor (IN OUCC)	End-Use Customer
Gates	Terry	Appalachian Power Company	Transmission Owner
Georgiou	Nick	Argus Media	None



Last Name	First Name	Company	Sector
Gibelli	Stephen	NextEra Energy Marketing, LLC	Other Supplier
Gilani	Rehan	Consolidated Edison Energy, Inc.	Other Supplier
Grau	Patrick	Apogee Energy Trading LLC	Other Supplier
Guntle	Vince	American PowerNet Management, L.P.	End-Use Customer
Haas	Howard	Monitoring Analytics	None
Hanser	Erik	Michigan Public Service Commission	None
Harmon	Michael	Union Electric Company d/b/a Ameren Missouri	Other Supplier
Hastings	David	MICS	None
Hayik	Seth	Monitoring Analytics	None
Heinle	Frederick	Office of the People's Counsel for the District of Columbia	End-Use Customer
Heitmeyer	Chad	Appalachian Power Company	Transmission Owner
Hollern	Conor	Buckeye Power, Inc.	Electric Distributor
Hollis	Gabriel	NextEra Energy Marketing, LLC	Other Supplier
Horning	Lynn	Customized Energy Solutions, Ltd.*	None
Hudis	Gabriella	Gabel Associates	None
Hull	Gerit	American Municipal Power, Inc.	Electric Distributor
Huntoon	Steve	Chesapeake Transmission LLC	Other Supplier
Jens	Tom	Black Oak Capital, LLC	Other Supplier
Johnston	David	Indiana Utility Regulatory Commission	None
Kaplan Esq.	Donald	K&L Gates	None
Kelly	Stephen	Brookfield Energy Marketing LP	Other Supplier
Kirk	Ryan	Appalachian Power Company	Transmission Owner
Klein	Abram	Appian Way Energy Partners MidAtlantic, LLC	Other Supplier
Knies	Heather	LM Power, LLC	Other Supplier
Kozhuharov	Dimitar	Delaware Public Service Commission	None
Kuhn	Tyler	Citadel FNGE Ltd.	Other Supplier
Laios	Takis	Appalachian Power Company	Transmission Owner
Lamp	Jeffrey	Peak Energy Capital LP	Other Supplier
Lawson	Ryen	Dominion Energy Generation Marketing, Inc.	Generation Owner
Lowe	Connie	Virginia Electric & Power Company	Transmission Owner
Martin	Valerie	The Federal Energy Regulatory Commission	None
Matuszak	Anthony	UGI Energy Services, LLC	Other Supplier
McAlister	Lisa	American Municipal Power, Inc.	Electric Distributor
Meadors	Amanda	Duke Energy Business Services LLC	Transmission Owner
Midgley	Sharon	Exelon Business Services Company, LLC	Transmission Owner
Mooney	Jeff	FirstEnergy Solutions Corp.	Transmission Owner
Mounkhal	Brian	Public Service Electric & Gas Company	Transmission Owner

Last Name	First Name	Company	Sector
Nadel	Steven	PPL Electric Utilities Corporation d/b/a PPL Utilities	Transmission Owner
O'Leary	Chris	Public Service Electric & Gas Company	Transmission Owner
Ondayko	Brock A.	AEP Energy Partners, Inc.	Transmission Owner
Peoples	John	Duquesne Light Company	Transmission Owner
Pizzutelli	Ashley	FirstEnergy Solutions Corp.	Transmission Owner
Price	Mark	DC Energy, LLC	Other Supplier
Price	Ruth	Delaware Division of the Public Advocate	End-Use Customer
Ramsey	James	Perast Fund LP	Other Supplier
Reams	William	Allegheny Electric Cooperative, Inc.	Electric Distributor
Ringhausen	Mark	Old Dominion Electric Cooperative	Electric Distributor
Russ	Michael	Dayton Power & Light Company (The)	Transmission Owner
Saini	Ishwar	Macquarie Energy Trading LLC	Other Supplier
Sasser	Jonathan	Customized Energy Solutions, Ltd.*	None
Schultz	Matthew	Duke Energy Business Services LLC	Transmission Owner
Schum	Alice	Illinois Municipal Electric Agency	Electric Distributor
Segner	Sharon	West Deptford Energy, LLC	Generation Owner
Shanker	Roy	East Coast Power & Gas of New Jersey, LLC	Other Supplier
Shealy	Erin	GDS Associates	None
Sidhom	Noha	Prime Trading, LLC	Other Supplier
Skucas	Ruta	Pierce Atwood	None
Skumanich	William	RTR Energy Solutions LLC	None
Smith	Christen	RTO Insider	None
Sotkiewicz	Paul	Elwood Energy, LLC	Generation Owner
Squibb	William	Ohio Valley Electric Corporation	Transmission Owner
Stern	Alex	Public Service Electric & Gas Company	Transmission Owner
Stone	Andy	Gabel Associates	None
Stuchell	Jeff	FirstEnergy Solutions Corp.	Transmission Owner
Sturgeon	John	Duke Energy Business Services LLC	Transmission Owner
Svenson	Heather	Public Service Electric & Gas Company	Transmission Owner
Sweeney	Rory	GT Power Group	None
Thompson	Matt	XO Energy MA, L.P.	Other Supplier
Tibbetts	Maeve	Pierce Atwood	None
Toomey	Megan	Talen Energy Marketing, LLC	Generation Owner
Vargo	Daniel	Allegheny Electric Cooperative, Inc.	Electric Distributor
Weeks	Tom	Michigan Public Service Commission	None
Wilson	James	Wilson Energy Economics	None
Wisersky	Megan	Madison Gas & Electric Co.	Other Supplier

Last Name	First Name	Company	Sector
Wynder	Michael	Nodal Exchange	None

#### PJM Attendees

Last Name	First Name	Company	Sector
Barrett	Fran	PJM Interconnection, LLC	None
Bennett	Daniel	PJM Interconnection, LLC	None
Bernstein	Matt	PJM Interconnection, LLC	None
Bloczynski	Nigeria	PJM Interconnection, LLC	None
Boyle	Glen	PJM Interconnection, LLC	None
Breeding	Michael	PJM Interconnection, LLC	None
Brown	Richard	PJM Interconnection, LLC	None
Bruno	Patrick	PJM Interconnection, LLC	None
Bruno	Joshua	PJM Interconnection, LLC	None
Bryson	Mike	PJM Interconnection, LLC	None
Budney	David	PJM Interconnection, LLC	None
Buehler	Susan	PJM Interconnection, LLC	None
Cabezas	Angela	PJM Interconnection, LLC	None
Callaghan	Christopher	PJM Interconnection, LLC	None
Cao	Roger	PJM Interconnection, LLC	None
Carroll	Rebecca	PJM Interconnection, LLC	None
Ciabattoni	Joe	PJM Interconnection, LLC	None
Coyne	Suzanne	PJM Interconnection, LLC	None
Croop	Danielle	PJM Interconnection, LLC	None
D'Antonio	Phil	PJM Interconnection, LLC	None
Dolan	James	PJM Interconnection, LLC	None
Drauschak	Lisa	PJM Interconnection, LLC	None
Egan	Amanda	PJM Interconnection, LLC	None
Fabiano	Janell	PJM Interconnection, LLC	None
Falin	Tom	PJM Interconnection, LLC	None
Fan	Zhenyu	PJM Interconnection, LLC	None
Fernandez	Ray	PJM Interconnection, LLC	None
Fitzpatrick	Brian	PJM Interconnection, LLC	None
Foley	Pauline	PJM Interconnection, LLC	None
Freeman	Jennifer	PJM Interconnection, LLC	None
Glatz	Suzanne	PJM Interconnection, LLC	None
Gluck	Jim	PJM Interconnection, LLC	None
Greening	Michele	PJM Interconnection, LLC	None
Hauske	Tom	PJM Interconnection, LLC	None

Last Name	First Name	Company	Sector
Herel	Suzanne	PJM Interconnection, LLC	None
Herling	Steve	PJM Interconnection, LLC	None
Hoey	Edward	PJM Interconnection, LLC	None
Holter	Natasha	PJM Interconnection, LLC	None
Hsia	Eric	PJM Interconnection, LLC	None
Hugee	Jacquelyn	PJM Interconnection, LLC	None
Keech	Adam	PJM Interconnection, LLC	None
Kenney	Susan	PJM Interconnection, LLC	None
Keshavamurthy	Bhavana	PJM Interconnection, LLC	None
Kimmel	David	PJM Interconnection, LLC	None
LaRocque	Matthew	PJM Interconnection, LLC	None
Lee	Ray	PJM Interconnection, LLC	None
Lu	Chen	PJM Interconnection, LLC	None
McLaverly	Megan	PJM Interconnection, LLC	None
Monzon	Stephanie	PJM Interconnection, LLC	None
Mooney	Molly	PJM Interconnection, LLC	None
Morelli	Lisa	PJM Interconnection, LLC	None
O'Brien	Tom	PJM Interconnection, LLC	None
O'Hara	Bernie	PJM Interconnection, LLC	None
Olaleye	Michael	PJM Interconnection, LLC	None
Patel	Anita	PJM Interconnection, LLC	None
Pilong	Melissa	PJM Interconnection, LLC	None
Riley	Susan	PJM Interconnection, LLC	None
Rocha-Garrido	Patricio	PJM Interconnection, LLC	None
Salmon	Lisa	PJM Interconnection, LLC	None
Schuart	Denise	PJM Interconnection, LLC	None
Schuyler	Ken	PJM Interconnection, LLC	None
Schweizer	David	PJM Interconnection, LLC	None
Seiler	Ken	PJM Interconnection, LLC	None
Shah	Vijay	PJM Interconnection, LLC	None
Sims	Mark	PJM Interconnection, LLC	None
Souder	Michelle	PJM Interconnection, LLC	None
Souder	Dave	PJM Interconnection, LLC	None
Stanisz	Mark	PJM Interconnection, LLC	None
Stefanowicz	Vince	PJM Interconnection, LLC	None
Strella Wahba	Lauren	PJM Interconnection, LLC	None
Swimm	Nora	PJM Interconnection, LLC	None

Last Name	First Name	Company	Sector
Tacka	Natalie	PJM Interconnection, LLC	None
Tribulski	Jen	PJM Interconnection, LLC	None
Ward	Mike	PJM Interconnection, LLC	None
Warshel	Kim	PJM Interconnection, LLC	None
Williams	Stan	PJM Interconnection, LLC	None