

## Markets and Reliability Committee

Webex Only

September 17, 2020

9:00 a.m. – 11:50 a.m.

### Administration

Stu Bresler and Dave Anders welcomed stakeholders and provided the Anti-trust and Code of Conduct, and Meeting Participation announcements.

### Consent Agenda

Item A was approved by acclamation with two objections and one abstention:

A. Minutes of the August 20, 2020 meeting of the Markets and Reliability Committee (MRC).

### Endorsements/Approvals

#### 1. Cost Development Subcommittee

Glen Boyle reviewed proposed revisions to the Cost Development Subcommittee charter. Following discussion, the committee **approved** the proposed charter revisions by acclamation with no objections or abstentions.

#### 2. ~~Critical Infrastructure Stakeholder Oversight Senior Task Force~~

This item was removed from the agenda.

#### 3. PMU Placement in RTEP Planning Process

Shaun Murphy reviewed proposed revisions to Manual 01: Control Center and Data Exchange Requirements and Manual 14B: PJM Region Transmission Planning Process addressing PMU Placement in RTEP Planning Process. Alex Stern, PSEG proposed a friendly amendment (styled FA1) to the proposed Manual 01 section 3.6 revisions to clarify the purpose and type of RTEP projects for which the PMUs would be required. Mike Gahimer, Indiana Office of Utility Consumer Counselor, objected to this proposed amendment being considered friendly, and therefore it was not incorporated into the main motion. Mr. Steve Lieberman, AMP, proposed a further friendly amendment (styled FA2) to the proposed Manual 01 section 3.6 revisions related to the facility types that would be required to include PMUs (note that AMPs proposed amendment incorporates FA1). Mike Gahimer objected to this proposed amendment being considered friendly as well, and therefore it was not incorporated into the main motion. Both proposed friendly amendments were included in the posted materials for this meeting (included in the main presentation for this agenda item). The main motion **failed** in a sector-weighted vote with 1.24 in favor. Steve Lieberman moved, and Adrien Ford, ODEC, seconded, FA2 (including FA1) as the first alternate motion. Following discussion, the alternative motion **passed** in a sector-weighted vote with 3.47 in favor.

Mike Gahimer and Greg Poulos, CAPS, discussed a posted proposed Issue Charge related to a broader review of PMU implementation, and requested that this presentation be considered a first read of the proposed Issue Charge. There was no objection to this being considered a first read, provided that questions regarding the group assignment are resolved, and that there is a discussion at the appropriate Standing Committee prior to requesting a vote at the MRC. A presentation will be scheduled for the next meeting of the Operating Committee, and vote on the proposed Issue Charge may be requested at the committee's next meeting.

[Issue Tracking: RTEP Phasor Measurement Unit \(PMU\) Placement](#)

4. Capacity Capability Senior Task Force Proposed Solutions

Melissa Pilog provided an update of the work completed at the Capacity Capability Senior Task Force (CCSTF).

Andrew Levitt reviewed the main motion endorsed by the CCSTF, Package A. David Scarpignato, Calpine, proposed a friendly amendment to Package A to incorporate the first part of the posted Alternate Motion Amendment to Joint Stakeholder Package as modified below:

**Agreement to Further Evaluate the Operations of Limited Duration Resources**

Following FERC approval of an ELCC-related filing that includes a 4-hour Limited Duration Class, PJM will initiate a stakeholder process to further evaluate the coordination of the operation of all Limited Duration Capacity Resources with system needs and evaluate the modelling of Limited Duration Resources within ELCC. The proceeding will consider rules to sufficiently ensure that the operational behavior of Limited Duration Capacity Resources is appropriately aligned with the resource adequacy construct and system reliability by examining issues including but not limited to ELCC modelling, bidding, operations, emergency procedures, and energy market offer requirements.

John Horstmann, Dayton Power & Light, objected to this being considered friendly and therefore it was not incorporated into Package A. Following discussion, Package A **failed** in a sector-weighted vote with 1.29 in favor.

Betty Watson, Modern Energy, reviewed the alternative solution endorsed by the CCSTF, Package D. Susan Bruce offered the content of the posted Alternate Motion Amendment to Joint Stakeholder Package as a friendly amendment to Package D. David Scarpignato objected to this being considered friendly, and therefore it was not incorporated into Package D. Following discussion, Package D **failed** in a sector-weighted vote with 2.56 in favor.

Susan Bruce, PJM ICC, moved and Erik Heinle, Office of the People's Counsel for the District of Columbia, seconded an alternate motion comprising Package D with the posted Alternate Motion Amendment to Joint Stakeholder Package. David Scarpignato proposed a friendly amendment to

incorporate into the first part of the posted Alternate Motion Amendment to Joint Stakeholder Package edits as below:

## **Agreement to Further Evaluate the Operations of Limited Duration Resources**

Following FERC approval of an ELCC-related filing that includes a 4-hour Limited Duration Class, PJM will initiate a stakeholder process to further evaluate the coordination of the operation of all Limited Duration Capacity Resources with system needs and evaluate the modelling of Limited Duration Resources within ELCC. The proceeding will consider rules to sufficiently ensure that the operational behavior of Limited Duration Capacity Resources is appropriately aligned with the resource adequacy construct and system reliability by examining issues including but not limited to ELCC modelling, bidding, operations, emergency procedures, and energy market offer requirements.

Susan Bruce objected to this being considered friendly and therefore it was not incorporated into the proposed alternate motion. Following discussion, this alternate motion **passed** in a sector-weighted vote with 3.98 in favor.

Stu Bresler noted that the members Committee will be asked to vote on the MRC endorsed proposal at its meeting on September 17, 2020 (same day voting).

[Issue Tracking: Effective Load Carrying Capability for Limited Duration Resources and Intermittent Resources](#)

## **First Readings**

### 5. 2020 Installed Reserve Margin Study Results

Tom Falin reviewed the 2020 Reserve Requirement Study results (IRM, FPR). The committee will be asked to endorse the study results at its next meeting.

### 6. Liquidation Process

Anita Patel addressed a proposed path forward for PJM's default management process. Nigeria Bloczynski reviewed related proposed Operating Agreement and Tariff revisions. The committee will be asked to approve/endorse the proposed revisions at its next meeting.

[Issue Tracking: Financial Risk Mitigation](#)

### 7. PJM Manuals

A. Gabrielle Genuario and Roger Cao reviewed proposed revisions to Manual 15: Cost Development Guidelines as part of the Biennial Review. The committee will be asked to endorse the proposed revisions at its next meeting.

## Informational Reports

### 8. Remedial Action Scheme Retirement (11:40-11:50)

Chris Szmodis, PPL, reviewed the retirement of the Susquehanna Catty Corner Remedial Action Scheme (RAS).

## Informational Posting Only

### 9. PJM Manual 03: Transmission Operations, Attachment E: Automatic Sectionalizing Schemes

Automatic Sectionalizing Schemes Pending Approval and Recent Changes were posted with the meeting materials.

## Future Agenda Items (11:50)

No new future agenda items were identified.

## Future Meeting Dates

October 29, 2020	9:00 a.m.	PJM Conference & Training Center/ WebEx
November 19, 2020	9:00 a.m.	PJM Conference & Training Center/ WebEx
December 17, 2020	9:00 a.m.	PJM Conference & Training Center/ WebEx

Author: D. 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	Member Company	Sector
Barker	Jason	Exelon Business Services Company, LLC	Transmission Owner
Baur	Sean	GlidePath Power Operations LLC	Generation 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. Hazleton Generation 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	Recurrent Energy, LLC	Generation Owner
Borgatti	Michael	Rep'g. York County Solid Waste and Refuse Authority	Generation Owner
Breidenbaugh	Aaron	Rep'g. COI Energy Services, Inc.	Other Supplier
Breidenbaugh	Aaron	Rep'g. Rodan Energy Solutions (USA) Inc.	Other Supplier
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
Campbell	Bruce	MidAtlantic Power Partners, LLC	Other Supplier
Canter	David	Appalachian Power Company	Transmission Owner
Carrier	Ron	Direct Energy Business, LLC	Other Supplier
Chang	Sean	Shell Energy North America (US), L.P.	Other Supplier
Chocarro	Iker	RWE Renewables Americas, LLC	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
Foladare	Kenneth	Geenex Solar 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
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 LP	Other Supplier
Hastings	David	Rep'g. SESCO Enterprises, LLC	Other Supplier
Hastings	David	Rep'g. Solios Power Mid-Atlantic Trading, LLC	Other Supplier

Heinle	Frederick	Office of the People's Counsel for the District of Columbia	End-Use Customer
Hoatson	Tom	Riverside Generating, LLC	Generation Owner
Hohenshilt	Jennifer	Talen Energy Marketing, LLC	Generation Owner
Horstmann	John	Dayton Power & Light Company (The)	Transmission Owner
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
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. Michigan Public Power Agency	Generation Owner
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
Litchfield	Matt	CPV Power Holdings, LP	Generation Owner

Long	Scott	Allegheny Electric Cooperative, Inc.	Electric Distributor
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. Ohio Consumers' Counsel	End-Use Customer
Poulos	Greg	Rep'g. Pennsylvania Office of Consumer Advocate	End-Use Customer
Poulos	Greg	Rep'g. Public Staff - North Carolina Utilities Commission	End-Use Customer
Poulos	Greg	Rep'g. Virginia Division of Consumer Counsel	End-Use Customer
Poulos	Greg	Rep'g. West Virginia Consumer Advocate Division	End-Use Customer
Rohrbach	John	Rep'g. Big Savage, LLC	Generation Owner
Rohrbach	John	Rep'g. Green River Holdings, 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
Rumsey	Amanda	PPL Electric Utilities Corporation d/b/a PPL Utilities	Transmission Owner
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. 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	PRep'g. receipt 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
Stewart	Travis	Energy Harbor LLC	Generation Owner
Stupar	Rob	Invenergy, LLC	Generation Owner
Swalwell	Bradley	Tangent Energy Solutions, Inc.	Other Supplier
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
Watson	Betty	Affirmed Energy LLC	Other Supplier
Whitehead	Jeffrey	Rep'g. Eastern Generation, LLC	Generation Owner
Whitehead	Jeffrey	Rep'g. Essential Power Rock Springs, LLC	Generation Owner
Whitehead	Jeffrey	Rep'g. Neptune Regional Transmission System, LLC	Transmission Owner
Whitehead	Jeffrey	Rep'g. Wheelabrator Falls Inc.	Generation Owner
Wicks	Tonja	Duquesne Light Company	Transmission Owner

#### Non-Voting Attendees

Last Name	First Name	Company Name	Sector
Abdur-Rahman	Mushin	Hitachi ABB Power Grids	None
Abend	Eric	EA Consulting	None
Adams	Darrin	East Kentucky Power Cooperative, Inc.	Transmission Owner
Adams	Sean	PSEG Energy Resources and Trade LLC	Other Supplier
Ainspan	Malcolm	NRG Curtailment Solutions, Inc.	Other Supplier
Anderson	Jared	Platts	None
Bainbridge	Thomas	American Transmission Systems, Inc.	Transmission Owner
Berton	Tyler	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Bockhorn	Tim	Dayton Power & Light Company (The)	Transmission Owner
Bowring	Joe	Monitoring Analytics	None
Burbure	Stacey	Appalachian Power Company (AEP Transmission)	Transmission Owner
Burke	Jennifer	Lockheed Martin	None
Burwen	Jason	Energy Storage Association	None
Carmean	Gregory	OPSI	None
Cham	Edrissa	Savion, LLC	None
Chandler	Kent	Kentucky Public Service Commission	None
Christopher	Mahila	Public Utilities Commission of Ohio	None
Cocco	Michael	Old Dominion Electric Cooperative	Electric Distributor



Crystle	Gil	UGI Development Company	Generation Owner
D'Alessandris	Louis	American Transmission Systems, Inc.	Transmission Owner
Dasher	Brett	Energy Authority, Inc. (The)	Other Supplier
Dillon	Matthew	UGI Development Company	Generation Owner
DiNicola	Laura	Energy Harbor LLC	Generation Owner
Dixon	Chad	Customized Energy Solutions, Ltd.	None
Domian	Christin	Duquesne Light Company	Transmission Owner
Drom	Richard	RAD LLC	None
Duensing	Allison	Saracen Energy East LP	Other Supplier
Elkins	Rachel	American Transmission Systems, Inc.	Transmission Owner
Ericson	Christine	Illinois Commerce Commission	None
Evergam	Scott	Blue Horseshoe Energy LLC	None
Feller	John	PPL Electric Utilities Corp. dba PPL Utilities (TO)	Transmission Owner
Filomena	Guy	Customized Energy Solutions, Ltd.	None
Fleisher	Madeline	Dickinson Wright PLLC	None
Foster	Denise	East Kentucky Power Cooperative	None
Fuerst	Gary	American Transmission Systems, Inc.	Transmission Owner
Gahimer	Michael	Indiana Office of Utility Consumer Counselor (IN OUCC)	End-Use Customer
Gates	Terry	Appalachian Power Company (AEP Generation)	Transmission Owner
Gebolys	Debbie	Public Utilities Commission of Ohio	None
Gilani	Rehan	ConEdison Energy, Inc.	Other Supplier
Good	Megan	Pennsylvania Public Utility Commission	None
Grau	Patrick	Apogee Energy Trading LLC	Other Supplier
Guerry	Katie	Enel X North America, Inc.	Other Supplier
Haas	Howard	Monitoring Analytics	None
Hasan	Prusha	Advanced Energy Economy	None
Hanser	Erik	Michigan Public Service Commission	None
Heitmeyer	Chad	Appalachian Power Company (AEPSCO)	Transmission Owner
Herbert	Sebastian	DC Energy Mid-Atlantic, LLC	Other Supplier
Hollis	Gabriel	NextEra Energy Transmission, LLC	Other Supplier
Horning	Lynn Marie	Customized Energy Solutions, Ltd.	None
Horton	Dana	Appalachian Power Company (AEP Generation)	Transmission Owner
Huang	Jame	Rockland Electric Company	Transmission Owner
Hudis	Gabriella	Gable Associates	None
Hull	Gerit	American Municipal Power, Inc.	Electric Distributor
Huntoon	Stephen	Chesapeake Transmission LLC	Other Supplier
Hurwich	Mark	Elliott Bay Energy Trading, LLC	Other Supplier
Iler	Arthur	Indiana Office of Utility Consumer Counselor	End-Use Customer
Jacobs	Michael	UCS	None
Jens	Thomas	Black Oak Capital, LLC	Other Supplier

Jett	William	Duke Energy Business Services LLC	Transmission Owner
Johnson	Ryan	AEP Energy Partners, Inc.	Transmission Owner
Johnston	David	Indiana Utility Regulatory Commission	None
Joseph	Kelli	Clearway Energy	None
Laios	Takis	Appalachian Power Company (AEP Transmission)	Transmission Owner
Lamond	Bonnie	Highview Power	None
Lauterbach	Victoria	Wright and Tailsman	None
Lawson	Ryen	Dominion Virginia Power	Transmission Owner
Leonard	Hans	FERC	None
Libbos	Robin	Monongahela Power Company d/b/a Allegheny Power	Transmission Owner
Lin	Michael	DC Energy, LLC	Other Supplier
Lipscomb	Bobby	West Virginia Consumer Advocate Division	End-Use Customer
Liu-McKenna	Phyllis	Public Service Electric & Gas Company	Transmission Owner
Mabry	David	McNees Wallace & Nurick LLC	None
Mariam	Yohannes	Office of the People's Counsel for the District of Columbia	End-Use Customer
Markiewicz	Cindy	Allegheny Power (MonPwr Gen)	Transmission Owner
Martin	Valerie	FERC	None
Matheson	Eric	Pennsylvania Public Utility Commission	None
McDougall	Devin	Earthjustice	None
Midgley	Sharon	Exelon Business Services Company, LLC	Transmission Owner
Nadel	Steven	PPL Electric Utilities Corp. dba PPL Utilities (TO)	Transmission Owner
Natufzak	Alexander	UGI Energy Services, LLC	Other Supplier
Okenfuss	James	Savion, LLC	None
Ondayko	Brock	AEP Energy Partners, Inc. (AEP Gen Resources)	Transmission Owner
Pawlowski	Matt	NextEra Energy Marketing, LLC	Other Supplier
Peoples	John	Duquesne Light Company	Transmission Owner
Pizzutelli	Ashley	Allegheny Power (MonPwr Gen)	Transmission Owner
Price	Mark	DC Energy Mid-Atlantic, LLC	Other Supplier
Price	Ruth	Delaware Division of the Public Advocate	End-Use Customer
Rainey	Frank	PEI Power LLC	Generation Owner
Rainey	John	Northern Virginia Electric Cooperative	Electric Distributor
Rajan	Abhijit	Dominion Virginia Power	Transmission Owner
Ramsey	James	Perast Fund LP	Other Supplier
Robinson	Becky	Dynegy Marketing & Trade, LLC (DECAM)	Generation Owner
Ruan	Lily	Illinois Commerce Commission	None
Rutigiano	Tom	NRDC	None
Sasser	Jonathan	Customized Energy Solutions, Ltd.	None
Schultz	Matthew	Duke Energy Business Services LLC	Transmission Owner
Schreim	Morris	Maryland Public Service Commission	None
Seide	Richard	Apex Clean Energy	None

Shanker	Roy	East Coast Power Linden Holdings, LLC	Generation Owner
Sidhom	Noha	Prime Trading, LLC	Other Supplier
Sillin	John	Federal Energy Regulatory Commission	None
Singer	Chad	Trane Grid Services LLC	Other Supplier
Sotkiewicz	Paul	E-Cubed Policy Associates	None
Squibb	Bill	Ohio Valley Electric Corporation	Transmission Owner
Stern	Alexander	Public Service Electric & Gas Company	Transmission Owner
Stone	Andy	Andy Stone	None
Stuchell	Jeff	American Transmission Systems, Inc.	Transmission Owner
Sturgeon	John	Duke Energy Business Services LLC	Transmission Owner
Suh	Jung	Calpine Energy Solutions, LLC	Other Supplier
Sweeney	Rory	GT Power Group, LLC	None
Szmodis	Christopher	PPL Electric Utilities Corp. dba PPL Utilities (TO)	Transmission Owner
Taylor	Robert	Commonwealth Edison Company	Transmission Owner
Thundiyil	Kevin	Exelon Generation Co., LLC (NEV_XLON)	Generation Owner
Tibbetts	Maeve	Pierce Atwood	None
VanAmburg	Cari	Recurrent Energy	Generation Owner
Vargo	Daniel	Allegheny Electric Cooperative, Inc.	Electric Distributor
Walker	Jennifer	Exelon Business Services Company, LLC	Transmission Owner
Wehnes	Kathleen	Maryland Department of the Environment	None
White	Brett	Edison Electric Institute	None
Willey	Amy	Delaware Public Service Commission	None
Wilson	James	Wilson Energy Economics	None
Wisersky	Megan	Madison Gas & Electric Co.	Other Supplier
Yoder	Michael	RTO Insider	None
York	Joshua	LS Power Transmission, LLC	None

#### PJM Attendees

Last Name	First Name	Company	Sector
Asthana	Manu	PJM President & CEO	None
Bennett	Stephen	PJM Interconnection, LLC	None
Berner	Aaron	PJM Interconnection, LLC	None
Bernstein	Matthew	PJM Interconnection, LLC	None
Bloczynski	Nigeria	PJM Interconnection, LLC	None
Boyle	Glen	PJM Interconnection, LLC	None
Bruno	Patrick	PJM Interconnection, LLC	None
Bryson	Michael	PJM Interconnection, LLC	None
Cao	Roger	PJM Interconnection, LLC	None
Carroll	Rebecca	PJM Interconnection, LLC	None
Chen	Yang	PJM Interconnection, LLC	None
Chmielewski	Brian	PJM Interconnection, LLC	None

Coyne	Suzanne	PJM Interconnection, LLC	None
Croop	Danielle	PJM Interconnection, LLC	None
DeVita	Thomas	PJM Interconnection, LLC	None
Disciullo	Nicholas	PJM Interconnection, LLC	None
Downs	Jere	PJM Interconnection, LLC	None
Drauschak	Lisa	PJM Interconnection, LLC	None
Dumitriu	Nicolae	PJM Interconnection, LLC	None
Endreess	Eric	PJM Interconnection, LLC	None
Eylander	Alexander	PJM Interconnection, LLC	None
Fabiano	Janell	PJM Interconnection, LLC	None
Falin	Tom	PJM Interconnection, LLC	None
Fan	Zhenyu	PJM Interconnection, LLC	None
Foley	Sheila	PJM Interconnection, LLC	None
Genuario	Gabrielle	PJM Interconnection, LLC	None
Glatz	Suzanne	PJM Interconnection, LLC	None
Glazer	Craig	PJM Interconnection, LLC	None
Greening	Michele	PJM Interconnection, LLC	None
Gustwhite	Jeff	PJM Interconnection, LLC	None
Haque	Asim	PJM Interconnection, LLC	None
Hauske	Thomas	PJM Interconnection, LLC	None
Herel	Suzanne	PJM Interconnection, LLC	None
Herman	Michael	PJM Interconnection, LLC	None
Holter	Natasha	PJM Interconnection, LLC	None
Horger	Tim	PJM Interconnection, LLC	None
Hugee	Jacquelynn	PJM Interconnection, LLC	None
Hsia	Eric	PJM Interconnection, LLC	None
Keech	Adam	PJM Interconnection, LLC	None
Kenney	Susan	PJM Interconnection, LLC	None
LaRocque	Matthew	PJM Interconnection, LLC	None
Levitt	Andrew	PJM Interconnection, LLC	None
Lu	Chenchao	PJM Interconnection, LLC	None
McElwaine	Kathy	PJM Interconnection, LLC	None
McGlynn	Paul	PJM Interconnection, LLC	None
McLaverty	Megan	PJM Interconnection, LLC	None
Monzon	Stephanie	PJM Interconnection, LLC	None
Mooney	Molly	PJM Interconnection, LLC	None
Morelli	Lisa	PJM Interconnection, LLC	None
Murphy	Shaun	PJM Interconnection, LLC	None
Muhl	Nancy	PJM Interconnection, LLC	None
O'Brien	Tom	PJM Interconnection, LLC	None

O'Hara	Christopher	PJM Interconnection, LLC	None
Pincus	Steve	PJM Interconnection, LLC	None
Phillips	Darlene	PJM Interconnection, LLC	None
Pilong	Christopher	PJM Interconnection, LLC	None
Pilong	Melissa	PJM Interconnection, LLC	None
Rogers	Sarah	PJM Board Member	None
Salmon	Lisa	PJM Interconnection, LLC	None
Sarti	Daniel	PJM Interconnection, LLC	None
Scheidecker	Paul	PJM Interconnection, LLC	None
Schuyler	Ken	PJM Interconnection, LLC	None
Seiler	Kenneth	PJM Interconnection, LLC	None
Shields	Jeff	PJM Interconnection, LLC	None
Smith	Neil	PJM Board Member	None
Souder	Dave	PJM Interconnection, LLC	None
Souder	Michelle	PJM Interconnection, LLC	None
Stanisz	Mark	PJM Interconnection, LLC	None
Swim	Nora	PJM Interconnection, LLC	None
Thomas	Henry	PJM Interconnection, LLC	None
Tribulski	Jennifer	PJM Interconnection, LLC	None
Ward	Michael	PJM Interconnection, LLC	None
Warshel	Kim	PJM Interconnection, LLC	None