

Markets and Reliability Committee

Webex Only

May 28, 2020

9:00 a.m. – 12:55 p.m.

Administration

Stu Bresler and Dave Anders welcomed stakeholders and provided the Anti-trust and Code of Conduct, and Meeting Participation announcements. Stu Bresler noted that Thomas DeVita would provide an informational discussion regarding the recent FERC order related to reserve pricing.

Consent Agenda

Items A through F were **approved/endorsed** by acclamation with one objection and one abstention.

- A. Minutes of the April 30, 2020 meeting of the Markets and Reliability Committee (MRC).
- B. Proposed revisions to PJM Manual 01: Control Center and Data Exchange including revisions to Attachment A: Data Specification and Collection Attachment B: Schedule of Data Submittals.
- C. Proposed revisions to Manual 03: Transmission Operations and a proposed Manual 03B related to CEIL.
- D. Proposed revisions to PJM Manual 03: Transmission Operations resulting from the bi-annual review to update operating procedures.
- E. Conforming revisions to Manual 18: PJM Capacity Market related to Price Responsive Demand.
- F. Proposed revisions to PJM Manual 36: System Restoration including revisions to Attachment B: Restoration Forms and Attachment G: Coordination of Restoration Plan with PJM Internal and External Neighboring Entities - PJM Approval Process for TO Restoration Plans.

Endorsements/Approvals

1. Surety Bonds

Kathleen McElwaine provided a review of the surety bonds proposals as deferred at the April 25, 2019 Markets and Reliability Committee meeting. Following discussion, the committee **endorsed** the proposal and associated Tariff revisions by acclamation with three objections and three abstentions.
[Issue Tracking: Surety Bonds Opportunity](#)

2. PMA Credit Requirements

Bridgid Cummings reviewed proposed Tariff revisions related to Peak Market Activity (PMA) credit requirements pertaining to federal, state, and/or local law transfer of charges or credits. Following discussion, the committee **endorsed** the proposal and associated Tariff revisions by acclamation with no objections and one abstention.
[Issue Tracking: PMA Credit Requirements for NITS Charges](#)

3. Integration of HVDC Converter Problem Statement

Steve Frenkel, SOO Green, reviewed a proposed Problem Statement and Issue Charge seeking an opportunity to integrate High Voltage Direct Current (HVDC) converters as a new type of capacity resource. Following discussion, the committee **approved** the proposed Issue Charge in a sector-weighted vote with 4.40 in favor.

4. Transparency and End Of Life Planning

Jim Gluck reviewed the work completed at the MRC Special Sessions for Transparency and End of Life Planning including proposed solutions.

A. Mark Ringhausen, Old Dominion Electric Cooperative, Lisa McAlister, AMP, and Mike Engleman on behalf of LS Power, reviewed the joint stakeholder solution proposal and draft OA revisions posted.

B. Dave Souder reviewed PJM's solution proposal.

Following discussion, both proposals **failed** in sector-weighted votes, with the joint stakeholders' proposal receiving 3.23 in favor and the PJM proposal receiving 1.77 in favor. Stu Bresler noted that while the agenda for the May 28, 2020 Members Committee meeting indicated that endorsement/approval will be sought on the same day that would not happen as a matter of course.

[Issue Tracking: Transparency and End of Life Planning](#)

5. Capacity Capability Senior Task Force Issue Charge

Andrew Levitt reviewed updates to the Capacity Capability Senior Task Force Issue Charge incorporating revisions correlated with FERC's Order issued on April 10, 2020 (Dockets ER20-584 and EL19-100). Following discussion, the committee **approved** the proposed revisions to the Issue Charge upon first read by acclamation with no objections or abstentions.

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

6. Fuel Requirements for Black Start Resources Issue Charge

Janell Fabiano reviewed proposed updates to the Fuel Requirements for Black Start Resources Issue Charge to remove Minimum Tank Suction Level (MTSL) from the Key Work Activities as a result of a May 14 Operating Committee contingent vote adding MTSL to the newly approved Black Start Unit Involuntary Termination & Substitution Rules Issue Charge. Following discussion, the committee **approved** the proposed revisions to the Issue Charge upon first read by acclamation with no objections or abstentions.

[Issue Tracking: Fuel Requirements for Black Start Resources](#)

[Issue Tracking: Black Start Unit Involuntary Termination & Substitution Rules](#)

First Readings

7. Emerging Technologies Forum

Eric Hsia reviewed a new proposed forum addressing Emerging Technologies. The committee will be asked to endorse the charter at its next meeting.

8. PJM Manuals

A. Onyinye Caven presented clarifying and administrative changes to Manuals 14A, 14E and 14G identified as part of the periodic review. The committee will be asked to endorse the proposed revisions at its next meeting.

9. Stakeholder Group Sunset

Dave Anders presented a proposed list of stakeholder groups for sunset. The committee will be asked to endorse the stakeholder group sunsets at its next meeting.

Informational Reports

10. Modeling Generation Senior Task Force Update

Glen Boyle provided a report of the Modeling Generation Senior Task Force work completed regarding soak time, corresponding voting results, and the potential sunset of the group.

[Issue Tracking: Modeling Generation in Markets Gateway](#)

11. Subcommittee Consolidation

Scott Baker discussed a proposal to consolidate the Distributed Energy Resources Subcommittee (DERS) and Intermittent Resources Subcommittee (IRS) and provided an update regarding the proposed Solar-Battery Hybrids Issue Charge.

[Issue Tracking: Distributed Energy Resources in PJM Markets](#)

12. Credit Subcommittee Charter

Dave Anders provided an update regarding potential revisions to the Credit Subcommittee Charter including an expansion to incorporate risk and a proposed change in parent reporting structure.

13. FERC Order on Reserve Pricing Formation

Thomas DeVita provided an overview of the recently received FERC order on Reserve Price Formation. He discussed the FERC findings, compliance directives, and the timeline for the associated compliance filing and implementation. He also discussed PJM's intention to engage with stakeholders regarding development of the required compliance filing at regular and additional special sessions of the Market Implementation Committee.

Informational Postings Only

Proposed Amendments to Attachment M-3 of the PJM Tariff

On May 7, 2020, the Transmission Owners initiated and issued to stakeholders through PJM their Notice of Transmission Owners Consultation with the Members Committee Regarding Proposed Amendments to Attachment M-3 of the PJM Tariff, and that notice has been made available on behalf of the PJM Transmission Owners and has been posted with today's meeting materials. The PJM Transmission Owners plan to hold a webinar on June 1, 2020, from 2:00 PM to 4:00 PM (Eastern) to provide an opportunity for stakeholders to ask questions and comments on the proposed Amendments to Attachment M-3. Please note that in addition to the webinar, written comments on the Attachment M-3 Amendments may be submitted for consideration by email to: Comments for Transmission Owners@pjm.com on or before June 8, 2020.

Future Agenda Items

No new future agenda items were identified.

Future Meeting Dates

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	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	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	Rep.'g Carolina Solar Energy III, LLC	Other Supplier
Borgatti	Michael	Rep.'g Covanta Energy Group, LLC	Generation Owner
Borgatti	Michael	Rep.'g Edgecombe Genco, LLC	Generation Owner
Borgatti	Michael	Rep.'g Hazleton Generation LLC	Generation Owner
Borgatti	Michael	Rep.'g Jersey Green Energy, LLC	Other Supplier

Last Name	First Name	Company	Sector
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
Carrier	Ron	Direct Energy Business, 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
Foladare	Kenneth	Geenex Solar LLC	Generation Owner
Ford	Adrien	Rep.'g Invenergy, 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
Gibbs	Ike	Citadel FNGE Ltd.	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

Last Name	First Name	Company	Sector
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
Horton	Dana	Appalachian Power Company	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
Hyzinski	Thomas	Rep.'g Linden VFT LLC	Transmission 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	Generation Owner
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
Lieberman	Steven	American Municipal Power, Inc.	Electric Distributor
Litchfield	Matt	CPV Power Holdings, LP	Generation Owner

Last Name	First Name	Company	Sector
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 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
Prokop	Brenda	ITC Interconnection LLC	Transmission Owner
Rohrbach	John	Rep.'g Big Savage, 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
Rosenthal	Bradley	Cape May County Municipal Utilities Authority	Generation Owner
Rumsey	Amanda	PPL Electric Utilities Corporation d/b/a PPL Utilities	Transmission Owner
Scarpignato	David	Calpine Energy Services, L.P.	Generation Owner
Segner	Sharon	Rep.'g Anbaric Development Partners, LLC	Other Supplier
Sidhom	Noha	Rep.'g Appian Way Energy Partners MidAtlantic, LLC	Other Supplier
Sidhom	Noha	Rep.'g Prime Trading, LLC	Other Supplier
Sidhom	Noha	Rep.'g Red Wolf PT, LLC	Other Supplier
Sidhom	Noha	Rep.'g Strom Power, LLC	Other Supplier
Sidhom	Noha	Rep.'g Vitol Inc.	Other Supplier
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

Last Name	First Name	Company	Sector
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 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
Stern	Alex	Public Service Electric & Gas Company	Transmission Owner
Sturgeon	John	Duke Energy Business Services LLC	Transmission 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
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	Sector
Abdur-Rahman	Mushin	ABB Enterprise Software	Not Applicable
Adams	Darrin	East Kentucky Power Cooperative, Inc.	Transmission Owner
Ament	Todd	Cube Hydro Partners, LLC	Generation Owner
Bainbridge	Thomas	Energy Harbor LLC	Generation Owner
Berton	Tyler	AEP Energy Partners, Inc.	Transmission Owner
Bockhorn	Tim	AES ES Holdings, LLC	Generation Owner
Bowring	Joe	Monitoring Analytics	Not Applicable
Boyle	Stephen	Merion Energy	Not Applicable
Burbure	Stacy	AEP Energy Partners, Inc.	Transmission Owner
Campbell	Bruce	Enerwise Global Technologies, LLC	Other Supplier
Canter	David	Appalachian Power Company	Transmission Owner
Carmean	Gregory	OPSI	Not Applicable
Carrado	Regina	Exelon Business Services Company, LLC	Transmission Owner

Last Name	First Name	Company	Sector
Cocco	Michael	Old Dominion Electric Cooperative	Electric Distributor
Colbert	Cathleen	NRG Power Marketing, LLC	Generation Owner
Dadourian	John	Monitoring Analytics	Not Applicable
D'Alessandris	Lou	Energy Harbor LLC	Generation Owner
Dasher	Brett	Energy Authority, Inc. (The)	Other Supplier
DeLosa	Joseph	New Jersey Board of Public Utilities	Not Applicable
Dennis	Jeff	Advanced Energy Economy	Not Applicable
DiNicola	Laura	Energy Harbor LLC	Generation Owner
Dolan	Ryan	American Municipal Power, Inc.	Electric Distributor
Domian	Christin	Duquesne Light Company	Transmission Owner
Drom	Richard	Eckert Seamans	Not Applicable
Engleman	Michael	Engleman Fallon, PLLC	Not Applicable
Ericson	Christine	Illinois Commerce Commission	Not Applicable
Ernst	Andrew	Archer Energy, LLC	Other Supplier
Everngam	Scott	Blue Horseshoe Energy	Not Applicable
Fazio	Danielle	Engelhart CTP (US) LLC	Other Supplier
Filomena	Guy	Customized Energy Solutions, Ltd.*	Not Applicable
Foley	Imelda	Environmental Defense Fund	Not Applicable
Foster	Denise	East Kentucky Power Cooperative, Inc.	Transmission Owner
Fuerst	Gary	Energy Harbor LLC	Generation Owner
Gahimer	Michael	Indiana Office of Utility Consumer Counselor (IN OUCC)	End-Use Customer
Garnett	Bryan	Duke Energy Business Services LLC	Transmission Owner
Gates	Terry	AEP Energy Partners, Inc.	Transmission Owner
Grooms	Craig	Buckeye Power, Inc.	Electric Distributor
Guerry	Katie	Enel Trading North America, LLC	Other Supplier
Guntle	Vince	American PowerNet Management, L.P.	End-Use Customer
Hannah	Kyle	Dominion Energy Generation Marketing, Inc.	Generation Owner
Hanser	Erik	Michigan Public Service Commission	Not Applicable
Heitmeyer	Chad	AEP Energy Partners, Inc.	Transmission Owner
Holdbrook	Ruth	Northern Virginia Electric Cooperative (NOVEC)	Electric Distributor
Hollis	Gabriel	NextEra Energy Marketing, LLC	Other Supplier
Horning	Lynn	Customized Energy Solutions, Ltd.*	Not Applicable
Hudis	Gabriella	Gabel Associates	Not Applicable
Hull	Gerit	American Municipal Power, Inc.	Electric Distributor
Hurwich	Mark	Elliott Bay Energy Trading, LLC	Other Supplier
Iler	Arthur	Indiana Office of Utility Consumer Counselor (IN OUCC)	End-Use Customer
Jens	Tom	Black Oak Capital, LLC	Other Supplier
Jett	William	Duke Energy Business Services LLC	Transmission Owner
Johnson	Ryan	AEP Energy Partners, Inc.	Transmission Owner

Last Name	First Name	Company	Sector
Johnston	David	Indiana Utility Regulatory Commission	Not Applicable
Jylkka	Chris	Daymark Energy Advisors	Not Applicable
Kaplan	Donald	K&L Gates	Not Applicable
Kazerooni	Hamid	Invenergy, LLC	Generation Owner
Koehler	Nicolas	AEP Energy Partners, Inc.	Transmission Owner
Kogut	George	New York Power Authority	Other Supplier
Kozhuharov	Dimitar	Delaware Public Service Commission	Not Applicable
Laios	Takis	Appalachian Power Company	Transmission Owner
Lawson	Ryen	Dominion Energy Generation Marketing, Inc.	Generation Owner
Liang-Nicol	Cecilia	Energy Harbor LLC	Generation Owner
Long	Scott	Allegheny Energy Supply Company, L.L.C.	Generation Owner
Mancuso	Melanie	Energy Harbor LLC	Generation Owner
Mariam	Yohannes	Office of the People's Counsel for the District of Columbia	End-Use Customer
McAlister	Lisa	American Municipal Power, Inc.	Electric Distributor
McDaniel	John	Baltimore Gas and Electric Company	Transmission Owner
Midgley	Sharon	Exelon Business Services Company, LLC	Transmission Owner
Mooney	Jeff	Energy Harbor LLC	Generation Owner
Nallan	Dwarakesh	Daymark Energy Advisors	Not Applicable
Nix	Emma	Gabel Associates	Not Applicable
Norton	Chris	American Municipal Power, Inc.	Electric Distributor
Ondayko	Brock A.	AEP Energy Partners, Inc.	Transmission Owner
Peoples	John	Duquesne Light Company	Transmission Owner
Philips	Marji	LS Power	Not Applicable
Pinnock	Ashley	NextEra Energy Marketing, LLC	Other Supplier
Pizzutelli	Ashley	Energy Harbor LLC	Generation Owner
Rainey	Frank	PEI Power LLC	Generation Owner
Rainey	John	Northern Virginia Electric Cooperative (NOVEC)	Electric Distributor
Reeping	Robert	Energy Harbor LLC	Generation Owner
Ringhausen	Mark	Old Dominion Electric Cooperative	Electric Distributor
Robinson	Becky	Dynegy Marketing and Trade, LLC	Generation Owner
Rogier	Daniel	AEP Energy Partners, Inc.	Transmission Owner
Ross	Richard	AEP Energy Partners, Inc.	Transmission Owner
Russ	Michael	Dayton Power & Light Company (The)	Transmission Owner
Rutigliano	Tom	NRDC	Not Applicable
Sasser	Jonathan	Customized Energy Solutions, Ltd.*	Not Applicable
Schmidt	Thomas	Buckeye Power, Inc.	Electric Distributor
Schreim	Morris	Maryland Public Service Commission	Not Applicable
Shah	Pulin	Exelon Business Services Company, LLC	Transmission Owner
Shanker	Roy	H.Q. Energy Services (U.S.), Inc.	Other Supplier

Last Name	First Name	Company	Sector
Sotkiewicz	Paul	Elwood Energy, LLC	Generation Owner
Squibb	William	Ohio Valley Electric Corporation	Transmission Owner
Stewart	Travis	Gabel Associates	Not Applicable
Stone	Andy	Gabel Associates	Not Applicable
Stuchell	Jeff	Energy Harbor LLC	Generation Owner
Sun	Haibin	Exelon Business Services Company, LLC	Transmission Owner
Sweeney	Rory	GT Power Group, LLC	Not Applicable
Tangirala	Subha	ABB Enterprise Software	Not Applicable
Tatum	Ed	American Municipal Power, Inc.	Electric Distributor
Taylor	Robert	Exelon Business Services Company, LLC	Transmission Owner
Theodore	Sharon	Electric Power Supply Association	Not Applicable
Thomas	Amber	Not Provided	Not Applicable
Thomas	Glen	GT Power Group, LLC	Not Applicable
VanderLaan	William	Illinois Commerce Commission	Not Applicable
Vargo	Daniel	Allegheny Electric Cooperative, Inc.	Electric Distributor
Walker	Jennifer	Exelon Business Services Company, LLC	Transmission Owner
Watson	Betty	Modern Energy	Not Applicable
Wehr	Chris	Energy Harbor LLC	Generation Owner
Wilson	Ben	Buckeye Power, Inc.	Electric Distributor
Wisersky	Megan	Madison Gas & Electric Co.	Other Supplier
Wolfe	Alice	Blue Ridge Power Agency, Inc.	Electric Distributor
Yochelson	Cheri	Dominion Energy Generation Marketing, Inc.	Generation Owner

PJM Attendees

Last Name	First Name	Company	Sector
Asthana	Manu	PJM Interconnection, LLC	Not Applicable
Baker	Scott	PJM Interconnection, LLC	Not Applicable
Berner	Aaron	PJM Interconnection, LLC	Not Applicable
Bloczynski	Nigeria	PJM Interconnection, LLC	Not Applicable
Boyle	Glen	PJM Interconnection, LLC	Not Applicable
Bryson	Mike	PJM Interconnection, LLC	Not Applicable
Buehler	Susan	PJM Interconnection, LLC	Not Applicable
Caven	Onyinye	PJM Interconnection, LLC	Not Applicable
Chmielewski	Brian	PJM Interconnection, LLC	Not Applicable
Connell	Jason	PJM Interconnection, LLC	Not Applicable
Cummings	Bridgid	PJM Interconnection, LLC	Not Applicable
D'Antonio	Phil	PJM Interconnection, LLC	Not Applicable
DeVita	Thomas	PJM Interconnection, LLC	Not Applicable
Derin	Bilge	PJM Interconnection, LLC	Not Applicable

Last Name	First Name	Company	Sector
Downs	Jere	PJM Interconnection, LLC	Not Applicable
Drauschak	Lisa	PJM Interconnection, LLC	Not Applicable
Egan	Amanda	PJM Interconnection, LLC	Not Applicable
Esterly	Theresa	PJM Interconnection, LLC	Not Applicable
Fabiano	Janell	PJM Interconnection, LLC	Not Applicable
Foley	Sheila	PJM Interconnection, LLC	Not Applicable
Foley	Pauline	PJM Interconnection, LLC	Not Applicable
Glazer	Craig	PJM Interconnection, LLC	Not Applicable
Gluck	Jim	PJM Interconnection, LLC	Not Applicable
Greening	Michele	PJM Interconnection, LLC	Not Applicable
Guistwhite	Jeff	PJM Interconnection, LLC	Not Applicable
Haque	Asim	PJM Interconnection, LLC	Not Applicable
Hauske	Tom	PJM Interconnection, LLC	Not Applicable
Herling	Steve	PJM Interconnection, LLC	Not Applicable
Hoang	Liem	PJM Interconnection, LLC	Not Applicable
Hsia	Eric	PJM Interconnection, LLC	Not Applicable
Hugee	Jacquelyn	PJM Interconnection, LLC	Not Applicable
Keech	Adam	PJM Interconnection, LLC	Not Applicable
Keegan	John	PJM Interconnection, LLC	Not Applicable
Langbein	Pete	PJM Interconnection, LLC	Not Applicable
Levitt	Andrew	PJM Interconnection, LLC	Not Applicable
Lu	Chen	PJM Interconnection, LLC	Not Applicable
Mathew	Lagy	PJM Interconnection, LLC	Not Applicable
McElwaine	Kathleen	PJM Interconnection, LLC	Not Applicable
McLavery	Megan	PJM Interconnection, LLC	Not Applicable
Monzon	Stephanie	PJM Interconnection, LLC	Not Applicable
Morelli	Lisa	PJM Interconnection, LLC	Not Applicable
Muhl	Nancy	PJM Interconnection, LLC	Not Applicable
O'Brien	Tom	PJM Interconnection, LLC	Not Applicable
O'Hara	Chris	PJM Interconnection, LLC	Not Applicable
Patel	Keyur	PJM Interconnection, LLC	Not Applicable
Phillips	Darlene	PJM Interconnection, LLC	Not Applicable
Pilong	Chris	PJM Interconnection, LLC	Not Applicable
Salmon	Lisa	PJM Interconnection, LLC	Not Applicable
Schuyler	Ken	PJM Interconnection, LLC	Not Applicable
Schweizer	David	PJM Interconnection, LLC	Not Applicable
Seiler	Ken	PJM Interconnection, LLC	Not Applicable
Seiler	Ken	PJM Interconnection, LLC	Not Applicable
Shields	Jeffrey	PJM Interconnection, LLC	Not Applicable

Last Name	First Name	Company	Sector
Smith	Neil	PJM Interconnection, LLC	Not Applicable
Snyder	Susan	PJM Interconnection, LLC	Not Applicable
Souder	Michelle	PJM Interconnection, LLC	Not Applicable
Souder	Dave	PJM Interconnection, LLC	Not Applicable
Souder	Rich	PJM Interconnection, LLC	Not Applicable
Takahasi	Mark	PJM Interconnection, LLC	Not Applicable
Tribulski	Jen	PJM Interconnection, LLC	Not Applicable
Wynder	Michael	PJM Interconnection, LLC	Not Applicable