

Markets and Reliability Committee
The Chase Center on the Riverfront, Wilmington, DE
January 28, 2016
9:00 a.m. – 12:50 p.m. EPT

Administration (9:00-9:05)

Mr. Mike Kormos welcomed stakeholders to the meeting and reviewed the agenda, and Mr. Dave Anders provided the Anti-trust and Code of Conduct announcements.

Mr. Vince Duane provided a brief overview of the recent Supreme Court decision regarding *FERC v. EPSA*.

Dr. Joe Bowring, Monitoring Analytics, discussed the Independent Market Monitors concerns regarding potential credit risk to Members should the FERC order a refund in the 206 proceeding regarding application of uplift to virtual transactions. Ms. Suzanne Daugherty discussed Operating Agreement (OA) and Credit Policy provisions applicable to such a situation.

Endorsements/Approvals (9:05-11:45)

1. Draft Minutes (9:05-9:10)

Minutes of the December 17, 2015 meeting of the Markets and Reliability Committee (MRC) meeting were **approved** by acclamation with no objections or abstentions.

2. PJM Manuals (9:10-9:25)

- A. Mr. Ray Fernandez reviewed proposed revisions to Manual 27: Open Access Transmission Tariff Accounting for the Market Consistency – Daily Zonal Scaling Factors issue that was worked through the Markets Settlements Subcommittee.
- B. Mr. Liem Hoang presented proposed revisions to Manual 38: Operations Planning identified through the required periodic review.
- C. Mr. Glen Boyle presented proposed revisions to Manual 40: Training and Certification Requirements associated with the resolution of the Training and Certification Non-Compliance issue.

Following discussion, the proposed revisions in items 2.A through 2.C were **endorsed** by acclamation with no objections or abstentions.

3. Energy Market Offer Cap (9:25-9:45)

Ms. Morelli presented proposed Tariff and OA revisions related to a clarification to conform to FERC's order regarding revisions to the energy market offer cap to exclude the 10% adder from costs based offers above \$2000. Due to the expedited nature of the associated filing, the committee was asked to endorse the proposed revisions at their first reading. Following discussion, the proposed Tariff and OA revisions were **endorsed** by acclamation with no objections and one abstention.

4. Virtual Transactions (9:45-10:00)

Mr. Adam Keech presented a proposed problem statement and issue charge regarding nodes at which virtual transactions may be made. Following discussion, the proposed problem statement and issue charge were **approved** by acclamation with one objection and no abstentions.

5. Distributed Battery Storage in PJM Markets (10:00-10:15)

Mr. Drew Adams, A.F. Mensah, Inc., presented a proposed problem statement and issue charge regarding Distributed Battery Storage in PJM Markets. Members present expressed desire for several changes to the documents. Discussion was interrupted to allow updates to the documents. Updated problem statement and issue charge documents were developed, posted to PJM.com, and made available for stakeholder review in the meeting. Mr. Jason Barker proposed a friendly amendment to add a statement to the end of the problem statement that this issue is limited to 20 MW for Behind the Meter resources. John Farber proposed a friendly amendment to the problem statement to change "... distributed resource is ..." to "... distributed resource may be ..." in the second bullet. Mr. Jim Benchek proposed a friendly amendment to the issue charge to add "if determined appropriate" to Expected Deliverable 1. Mr. Adams accepted these as friendly, and they were therefore incorporated into the main motion. Following discussion, the proposed problem statement and issue charge were **approved** by acclamation with one objection and one abstention.

6. Unit Commitment (10:15-10:30)

Mr. Barry Trayers, Citigroup Energy, Inc., presented a proposed problem statement and issue charge regarding Unit Commitment. Stakeholders expressed interest in discussing aspects of the proposed issue, but also expressed desire for additional education on day-ahead market and day-ahead commitment prior to voting on the problem statement and issue charge. Following discussion, Mr. Trayers agreed to defer a vote on the proposed problem statement and issues charge until completion of the requested education.

7. Capacity Performance Cost Allocation (10:30-10:45)

Mr. Stu Bresler presented a proposed problem statement and issue charge regarding cost allocation methodology to include winter peaks. Following discussion, the proposed problem statement and issue charge **failed** by acclamation with no votes to approve.

8. Seasonal Capacity Resources (10:45-11:00)

Mrs. Katie Guerry, EnerNOC Inc. and AEMA Board Member, on behalf of AEMA's PJM members, presented a proposed problem statement and issue charge regarding incorporation of seasonal resources into the Capacity Performance construct. Following discussion, the proposed problem statement and issue charge were **approved** in a sector-weighted vote with 3.40 in favor.

9. Voltage Threshold (11:00-11:15)

Ms. Sue Glatz presented draft OA revisions regarding voltage threshold and administrative changes. She noted that the Planning Committee had endorsed a slight amendment to the previously reviewed OA revisions to note that stakeholders could submit comments, but also that PJM would consider the comments. Following discussion, the proposed OA revisions were **endorsed** by acclamation with two objections and one abstention.

10. Long Term Firm Transmission Service Task Force (11:15-11:25)

Mr. Aaron Berner presented proposed Manual 14A: Generation and Transmission Interconnection Process and 14B: PJM Region Transmission Planning Process updates and the solution package to modify Long Term Firm Transmission Service methodologies. Following discussion, the proposed revisions were **endorsed** by acclamation with no objections or abstentions.

11. PAR Task Force (11:25-11:35)

Mr. Aaron Berner presented proposed Manual 14A: Generation and Transmission Interconnection Process updates regarding PAR withdrawal and inject rights. Following discussion, the proposed revisions were **endorsed** by acclamation with no objections and two abstentions.

12. Governing Documents Enhancement & Clarification Subcommittee (GDECS) (11:35-11:45)

Ms. Janell Fabiano presented proposed Tariff, Operating Agreement and Reliability Assurance Agreement revisions related to Alternative Dispute Resolution (ADR) and Markets Governing Documents Clean-up developed by the GDECS. Following discussion, the proposed revisions to the ADR provisions **failed** in a sector-weighted vote with 2.67 in favor; the remaining portions of the proposed revisions were **endorsed** by acclamation with no objections or abstentions.

First Readings (11:45-12:20)

13. Governing Documents Enhancement & Clarification Subcommittee (GDECS) (11:45-11:55)

Ms. Janell Fabiano presented additional proposed Tariff, Operating Agreement and Reliability Assurance Agreement revisions related to updated definitions and Markets Governing Documents Clean-up developed by the GDECS. She also discussed proposed Tariff and OA revisions to move all the bulk of definitions to a common section at the beginning of each document. The Committee will be asked to endorse these proposed revisions at its next meeting.

14. End-of-Life Transmission Projects (11:55-12:10)

Mr. Ed Tatum, AMP, presented a proposed problem statement and issue charge regarding end-of-life transmission projects. The Committee will be asked to approve the problem statement and issue charge at its next meeting.

15. PJM Manuals (12:10-12:20)

A. Ms. Terri Esterly presented proposed revisions to Manual 18: PJM Capacity market to conform to FERC Order ER16-333, accepted on 12/22/2015 and effective 01/16/2016 to change (1) instances

in which FRR Entities would not be required to meet the Percentage of Internal Resource Requirement, (2) circumstances in which an FRR Entity can terminate its five-year minimum commitment period, and (3) the FRR Alternative election dates for new FRR Entities. The Committee will be asked to endorse these proposed revisions at its next meeting.

Future Agenda Items (12:20)

Future Meeting Dates

February 25, 2016	9:00 a.m.	Wilmington, DE
March 31, 2016	9:00 a.m.	Wilmington, DE
April 28, 2016	9:00 a.m.	Wilmington, DE
May 26, 2016	9:00 a.m.	Wilmington, DE
June 30, 2016	9:00 a.m.	Wilmington, DE
July 28, 2016	9:00 a.m.	Wilmington, DE
August 25, 2016	9:00 a.m.	Wilmington, DE
September 29, 2016	9:00 a.m.	Wilmington, DE
October 27, 2016	9:00 a.m.	Wilmington, DE
November 17, 2016	9:00 a.m.	Wilmington, DE
December 22, 2016	9:00 a.m.	Wilmington, DE

In Attendance (Chair/Secretary):

Kormos, Michael	PJM Interconnection, LLC	Not Applicable
Anders, Dave	PJM Interconnection, LLC	Not Applicable

In Attendance (Voting Participants):

Adams, Drew	A.F. Mensah, Inc.	Other Supplier
Barker, Jason	Exelon Business Services Company, LLC	Transmission Owner
Benchek, Jim	FirstEnergy Solutions Corp.	Transmission Owner
Birnel, William	Westar Energy, Inc.	Other Supplier
Bleiweis, Bruce	DC Energy LLC	Other Supplier
Borgatti, Michael	Rep'g Covanta Energy Group, Inc.	Generation Owner
Borgatti, Michael	Rep'g Longview Power, LLC	Generation Owner
Borgatti, Michael	Rep'g RC Cape May Holdings, LLC	Generation Owner
Borgatti, Michael	Rep'g Jersey Green Energy LLC	Other Supplier
Borgatti, Michael	Rep'g NextEra Energy Power Marketing, LLC	Generation Owner
Borgatti, Michael	Rep'g Northampton Generating Company L.P.	Generation Owner
Borgatti, Michael	Rep'g York County Solid Waste and Refuse Authority	Generation Owner
Brodbeck, John	EDP Renewables North America, LLC	Other Supplier
Bruce, Susan	Rep'g Air Products & Chemicals, Inc.	End User Customer
Bruce, Susan	Rep'g Air Liquide Industrial U.S., LP	End User Customer
Bruce, Susan	Rep'g Lehigh Portland Cement Company	End User Customer

Bruce, Susan	Rep'g Praxair, Inc.	End User Customer
Bruce, Susan	Rep'g Linde LLC	End User Customer
Bruce, Susan	Rep'g Letterkenny Industrial Development Authority	Electric Distributor
Bruce, Susan	Rep'g Gerdau Ameristeel Energy, Inc.	Other Supplier
Bruce, Susan	Rep'g Procter & Gamble Paper Products Company (The)	End User Customer
Bruce, Susan	Rep'g MeadWestvaco Corporation	End User Customer
Bruce, Susan	Rep'g Wellsboro Electric Company (pre-2008)	Electric Distributor
Bruce, Susan	Rep'g Trustees of the U of PA, dba University of Pennsylvania	End User Customer
Bruce, Susan	Rep'g Industrial Energy Users-Ohio	Other Supplier
Bruce, Susan	Rep'g Kimberly-Clark Corporation	Generation Owner
Bruce, Susan	Rep'g Church Hill Solar Farm, LLC	Generation Owner
Bruce, Susan	Rep'g Diamond State Generation Partners, LLC	Generation Owner
Bruce, Susan	Rep'g Icetec.com, Inc.	Other Supplier
Bruce, Susan	Rep'g Kuehne Chemical Company, Inc.	Other Supplier
Bruce, Susan	Rep'g PBF Power Marketing LLC	Generation Owner
Bruce, Susan	Rep'g Energy Consulting Services LLC	Other Supplier
Campbell, Bruce	Rep'g Viridity Energy, Inc.	Other Supplier
Campbell, Bruce	Rep'g Mid-Atlantic Power Partners	Other Supplier
Campbell, Bruce	Rep'g EnergyConnect, Inc.	Other Supplier
Cox, Jason	Dynegy Marketing & Trade, LLC	Generation Owner
Czigler, Frank	Public Service Electric & Gas Company	Transmission Owner
Dugan, Chuck	East Kentucky Power Cooperative, Inc.	Transmission Owner
Ellison, Alan	Grays Ferry Cogeneration Partnership	Generation Owner
Esposito, Patricia	TransCanada Power Marketing Ltd.	Other Supplier
Evrard, David	Pennsylvania Office of Consumer Advocate	End User Customer
Fiano, Anna	KeyTex Energy, LLC	Other Supplier
Fitch, Neal	NRG Power Marketing LLC	Generation Owner
Foladare, Kenneth	IMG Midstream LLC	Generation Owner
Fondacci, Luis	North Carolina Electric Membership Corporation	Electric Distributor
Garnett, Bryan	Duke Energy Business Services LLC	Transmission Owner
Godson, Gloria	Potomac Electric Power Company	Electric Distributor
Greening, Michele	Talen Energy Marketing, LLC	Generation Owner
Griffiths, Dan	Rep'g Maryland Office of Peoples Counsel	End User Customer
Griffiths, Dan	Rep'g Illinois Citizens Utility Board	End User Customer
Griffiths, Dan	Rep'g Division of the Public Advocate of State of Delaware	End User Customer
Griffiths, Dan	Rep'g Indiana Office of Utility Consumer Counsel	End User Customer
Griffiths, Dan	Rep'g Office of the Attorney General, Kentucky	End User Customer

Griffiths, Dan	Rep'g Ofc... People's Counsel ... District of Columbia	End User Customer
Griffiths, Dan	Rep'g West Virginia Consumer Advocate Division	End User Customer
Griffiths, Dan	Rep'g Pennsylvania Office of Consumer Advocate	End User Customer
Griffiths, Dan	Rep'g New Jersey Div. of the Ratepayer Advocate	End User Customer
Griffiths, Dan	Rep'g Office of the Ohio Consumers' Counsel	End User Customer
Guerry, Katie	EnerNOC, Inc.	Other Supplier
Hastings, David	Rep'g Twin Cities Power, LLC	Other Supplier
Hastings, David	Rep'g SESCO Enterprises LLC	Other Supplier
Hastings, David	Rep'g Mercuria Energy America, Inc.	Other Supplier
Hastings, David	Rep'g Saracen Energy East LP	Other Supplier
Hastings, David	Rep'g Town Square Energy East, LLC	Other Supplier
Hastings, David	Rep'g Northstar Trading Ltd.	Other Supplier
Hastings, David	Rep'g Solios Power Mid-Atlantic Trading LLC	Other Supplier
Haugen, Joe	Interstate Gas Supply, Inc.	Other Supplier
Hayes, Patrick	Union Electric Company d/b/a Ameren Missouri	Other Supplier
Hoatson, Tom	West Deptford Energy, LLC	Generation Owner
Horstmann, John	Dayton Power and Light Company (The)	Transmission Owner
Horton, Dana	Appalachian Power Company (AEP Generation)	Transmission Owner
Jablonski, James	Rep'g Borough of Lavallette, New Jersey	Electric Distributor
Jablonski, James	Rep'g Borough of Madison, New Jersey	Electric Distributor
Jablonski, James	Rep'g Borough of Butler, Butler Electric Division	Electric Distributor
Jablonski, James	Rep'g Borough of Pemberton	Electric Distributor
Jablonski, James	Rep'g Vineland Municipal Electric Utility	Electric Distributor
Jablonski, James	Rep'g Borough of Seaside Heights, New Jersey	Electric Distributor
Jablonski, James	Rep'g Borough of Park Ridge, New Jersey	Electric Distributor
Jablonski, James	Rep'g Borough of Milltown	Electric Distributor
Jablonski, James	Rep'g Borough of South River, New Jersey	Electric Distributor
Jardot, Gina	Essential Power Rock Springs, LLC	Transmission Owner
Johnson, Carl	Rep'g Allegheny Electric Cooperative, Inc.	Electric Distributor
Johnson, Carl	Rep'g Galt Power Inc.	Other Supplier
Johnson, Carl	Rep'g Old Dominion Electric Cooperative	Electric Distributor
Johnson, Carl	Rep'g Blue Ridge Power Agency, Inc.	Electric Distributor
Johnson, Carl	Rep'g Central Virginia Electric Cooperative	Electric Distributor
Johnson, Carl	Rep'g Borough of Chambersburg (DTEET)	Electric Distributor
Johnson, Carl	Rep'g Delaware Municipal Electric Corporation	Electric Distributor
Johnson, Carl	Rep'g City of Dover, Delaware	Electric Distributor
Johnson, Carl	Rep'g Easton Utilities Commission	Electric Distributor

Johnson, Carl	Rep'g North Carolina Electric Membership Corporation	Electric Distributor
Johnson, Carl	Rep'g Indiana Municipal Power Agency	Generation Owner
Johnson, Carl	Rep'g American Municipal Power, Inc.	Electric Distributor
Johnson, Carl	Rep'g Northern Virginia Electric Cooperative (NOVEC)	Electric Distributor
Johnson, Carl	Rep'g Illinois Municipal Electric Agency	Electric Distributor
Johnson, Carl	Rep'g Hagerstown Light Department	Electric Distributor
Johnson, Carl	Rep'g Mont Alto, PA (Borough of)	Electric Distributor
Johnson, Carl	Rep'g Thurmont Municipal Light Company	Electric Distributor
Johnson, Carl	Rep'g Williamsport, MD (Town of)	Electric Distributor
Johnson, Carl	Rep'g Energy Cooperative Association of PA	Other Supplier
Johnson, Carl	Rep'g Madison Gas & Electric Company	Other Supplier
Johnson, Carl	Rep'g North Carolina Municipal Power Agency # 1	Other Supplier
Johnson, Carl	Rep'g WPPI Energy	Other Supplier
Johnson, Carl	Rep'g Buckeye Power, Inc.	Electric Distributor
Kelly, Stephen	Brookfield Energy Marketing LP	Other Supplier
Kogut, George	New York Power Authority	Other Supplier
Levine, Jeffrey	GDF Suez Energy Marketing NA, Inc.	Other Supplier
Lieberman, Steven	Old Dominion Electric Cooperative	Electric Distributor
Long, Scott	Allegheny Electric Cooperative, Inc.	Electric Distributor
Ma, Alex	Invenergy, LLC	Generation Owner
Melnyk, Markian	Atlantic Grid Operations A, LLC	Other Supplier
Merola, Becky	Noble Americas Gas & Power Corp.	Other Supplier
Moerner, Lisa	Virginia Electric & Power Company	Transmission Owner
Pakela, Greg	DTE Energy Trading, Inc.	Other Supplier
Peoples, John	Duquesne Light Company	Transmission Owner
Philips, Marji	Direct Energy Business, LLC	Other Supplier
Prokop, Brenda	ITC Mid-Atlantic Development LLC	Other Supplier
Richardson, Frank (Chip)	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner
Rohrbach, John	Rep'g Wabash Valley Power Association, Inc.	Electric Distributor
Rohrbach, John	Rep'g Southern Maryland Electric Cooperative	Electric Distributor
Rutigliano, Tom	Rep'g Earth NetWorks, Inc.	Other Supplier
Rutigliano, Tom	Rep'g Demansys Energy, LLC	Other Supplier
Rutigliano, Tom	Rep'g Achieving Equilibrium LLC	Other Supplier
Rutigliano, Tom	Rep'g Enerwise Global Technologies, Inc.	Other Supplier
Rutigliano, Tom	Rep'g EMC Development Company, Inc.	Other Supplier
Scarp, David	Calpine Energy Services, L.P.	Generation Owner
Scoglietti, Barbara	Tangent Energy Solutions, Inc.	Other Supplier

Sidhom, Noha	Inertia Power I, LLC	Other Supplier
Sitaraman, Nicole	Ofc... People's Counsel ... District of Columbia	End User Customer
Skucas, Ruta	Rep'g Hexis Energy Trading, LLC	Other Supplier
Skucas, Ruta	Rep'g Apple Group LLC	Other Supplier
Skucas, Ruta	Rep'g Red Wolf Energy Trading, LLC	Other Supplier
Skucas, Ruta	Rep'g Dyon, LLC	Other Supplier
Skucas, Ruta	Rep'g MET MA, LLC	Other Supplier
Skucas, Ruta	Rep'g Mac Trading, Inc	Other Supplier
Skucas, Ruta	Rep'g E Minus LLC	Other Supplier
Skucas, Ruta	Rep'g Pure Energy, Inc.	Other Supplier
Skucas, Ruta	Rep'g Great Bay Energy I, LLC	Other Supplier
Skucas, Ruta	Rep'g Ames Energy, LLC	Other Supplier
Skucas, Ruta	Rep'g RJUMR Energy Partners Corp.	Other Supplier
Skucas, Ruta	Rep'g Property Endeavors, LLC	End User Customer
Skucas, Ruta	Rep'g Solea Energy, LLC	Other Supplier
Skucas, Ruta	Rep'g Falcon Energy, LLC	Other Supplier
Skucas, Ruta	Rep'g Greene Energy, LLC	Other Supplier
Skucas, Ruta	Rep'g Dufossat Capital I, LLC	Other Supplier
Skucas, Ruta	Rep'g Velocity American Energy Master I, LP	Other Supplier
Skucas, Ruta	Rep'g Yasmin Partners LLC	Other Supplier
Skucas, Ruta	Rep'g Monterey MA, LLC	Other Supplier
Skucas, Ruta	Rep'g Southard Energy Partners LLC	Other Supplier
Skucas, Ruta	Rep'g Liberty Hill Power LLC	Other Supplier
Tatum, Ed	American Municipal Power, Inc.	Electric Distributor
Trayers, Barry	Citigroup Energy, Inc.	Other Supplier
Vaudreuil, Greg	Mosaic Power	Other Supplier
Wadsworth, Joe	Vitol Inc.	Other Supplier
Wiegand-Jackson, Laurie	IPKeys Power Partners, LLC	Other Supplier
Yu, Joel	Rockland Electric Company	Transmission Owner

In Attendance (Non-Voting Participants):

Ainspan, Malcolm	Energy Curtailment Specialists, Inc.	Other Supplier
Bainbridge, Thomas	FirstEnergy Solutions Corporation	Transmission Owner
Batta, Michael	Virginia Electric and Power Company	Transmission Owner
Berlinski, Mike	Customized Energy Solutions	Not Applicable
Birnel, William	Westar Energy, Inc.	Other Supplier
Bloom, David	Baltimore Gas and Electric Company	Transmission Owner

Burcat, Bruce	Midatlantic Renewable Energy Coalition	Not Applicable
Caletka, Patricia	New York State Electric & Gas Corporation	Other Supplier
Canter, David	AEP	Transmission Owner
Carmean, Gregory	OPSI	Not Applicable
Chen, Jennifer	NRDC/FERC Project	Not Applicable
Chocarro, Iker	E.on Climate & Renewables North America, Inc.	Generation Owner
Cicero, Nick	FirstEnergy Solutions Corporation	Transmission Owner
Cocco, Michael	Old Dominion Electric Cooperative	Electric Distributor
Conn, Jeff	Acorn Energy Trading, LLC	Other Supplier
Cox, Bill	Exion Energy, Inc.	Other Supplier
Currier, Jeffrey	Virginia Electric & Power Company	Transmission Owner
Darby, Benjamin	Lee River Proprietary Strategies, Inc.	Other Supplier
Davis, Ted	Maryland Public Service Commission	Not Applicable
DeLosa, Joseph	State of Delaware Public Service Commission	Not Applicable
Demuyneck, Rene	New Jersey Board of Public Utilities	Not Applicable
Denavas, Joe	Pepco Holdings Incorporated	Not Applicable
DePillo, Raymond	PSEG	Transmission Owner
Dessenger, Harry	Customized Energy Solutions, Ltd.*	Not Applicable
Dickson, Douglas	New Jersey Board of Public Utilities	Not Applicable
Dinicola, Laura	FirstEnergy Solutions Corporation	Transmission Owner
Doremus, Steven	EnerNOC, Inc.	Other Supplier
Engle, Andrew	XO Energy MA, LP	Other Supplier
Farber, John	Delaware Public Service Commission	Not Applicable
Feierabend, Rick	Dominion Virginia Power	Not Applicable
Fields, William	Maryland Office of People's Counsel	End-Use Customer
Filomena, Guy	Customized Energy Solutions, Ltd.*	Not Applicable
Fisher, Amy	Homer City Generation, L.P.	Generation Owner
Fort, Jim	Energy Authority, Inc. (The)	Other Supplier
Fuerst, Gary	FirstEnergy Solutions Corporation	Transmission Owner
Gaston, Vilna	Public Service Electric & Gas Company	Transmission Owner
Gebolys, Debbie	Public Utilities Commission of Ohio	Not Applicable
Gell, Richard	Ontario Power Generation Inc.	Other Supplier
Guerry, Katie	EnerNOC, Inc.	Other Supplier
Hanson, Mark	Illinois Commerce Commission	Not Applicable
Harmon, Mike	Ameren Energy Marketing Company	Generation Owner
Haynes, Greg	Energy Authority, Inc. (The)	Other Supplier
Heidorn, Richard	RTO Insider	Not Applicable

Herel, Suzanne	RTO Insider	Not Applicable
Hilaski, Steve	Pepco Holdings Incorporated	Not Applicable
Hitch, George	Dominion Virginia Power	Not Applicable
Huntoon, Stephen	Energy Counsel, LLP	Not Applicable
Jacobs, Mike	Union of Concerned Scientists	Not Applicable
Janicki, Diane	Boston Energy Trading and Marketing LLC	Generation Owner
Johnston, David	Indiana Utility Regulatory Commission	Not Applicable
Kaplan, Donald	PPL Electric Utilities Corporation d/b/a PPL Utilities	Transmission Owner
Karrasch, Kim	IGS Energy	Not Applicable
Kilgallen, Kevin	Emerald Energy Consulting, LLC	Not Applicable
Kingston, Amber	Aces Power Marketing	Not Applicable
Lacy, Catharine	Dominion Resources	Not Applicable
Laios, Takis	American Electric Power	Transmission Owner
Lange, Nathan	VECO Power Trading, LLC	Other Supplier
Leonard, Ryan	Iberdrola Renewables, LLC	Generation Owner
Logan, Sharon	The Federal Energy Regulatory Commission	Not Applicable
Loudenburg, Zack	Aces Power Marketing	Not Applicable
Lowe, Connie	Dominion Virginia Power	Not Applicable
Marcum, Joseph	Rumor	Not Applicable
Mariam, Yohannes	Office of the Peoples Counsel for the District of Columbia	Not Applicable
Marinelli, Richard	PSEG Energy Resources and Trade LLC	Transmission Owner
Martin, Valerie	The Federal Energy Regulatory Commission	Not Applicable
Marton, Dave	FirstEnergy Solutions Corporation	Transmission Owner
Matheson, Douglas	EnerNOC, Inc.	Other Supplier
Matheson, Eric	Pennsylvania Public Utility Commission	Not Applicable
McAlister, Lisa	American Municipal Power, Inc.	Generation Owner
McCaffree, Matt	Comverge, Inc.	Not Applicable
McDaniel, John	Baltimore Gas & Electric	Transmission Owner
Metzler, Jakob	Castleton Commodities Merchant Trading L.P.	Other Supplier
Midgley, Sharon	Exelon	Transmission Owner
Mitchell, Miles	Maryland Public Service Commission	Not Applicable
Monteith, Sherri	AEP	Transmission Owner
Nadel, Steven	PPL	Transmission Owner
Noewer, Sharon	FirstEnergy Solutions Corporation	Transmission Owner
Norton, Chris	American Municipal Power, Inc.	Generation Owner
Nowell, Cynthia	Pepco Holdings Incorporated	Not Applicable
Peters, James	ITC Mid-Atlantic Development LLC	Other Supplier

Phenix, Michael	TX	Not Applicable
Phillips, Amanda	ACES	Not Applicable
Poulos, Greg	EnerNOC, Inc.	Other Supplier
Pratzon, David	GT Power Group	Not Applicable
Price, Ruth	Delaware Public Advocates Office	Not Applicable
Rainey, Frank	PEI Power Corporation	Generation Owner
Reid, Ryan	ACES	Not Applicable
Reuter, Rob	Pepco Holdings Incorporated	Not Applicable
Riding, MQ	Essential Power, LLC	Generation Owner
Rismiller, Randy	The Illinois Commerce Commission	Not Applicable
Robson, Matt	SESCO Enterprises LLC	Other Supplier
Rugh, Chris	EverPower Wind Holdings, Inc.	Generation Owner
Saini, Ishwar	Macquarie Energy LLC	Other Supplier
Santiago-Mosier, Melanie	SunEdison Storage Solutions, LLC	Other Supplier
Sasser, Jonathan	Customized Energy Solutions	Not Applicable
Schafer, Anita	Duke Energy Business Services, Inc.	Generation Owner
Scott, Chance	Northern States Power Company	Other Supplier
Shamash, Hertzell	Dayton Power & Light Company (The)	Transmission Owner
Shanker, Roy	Hydro Quebec	Not Applicable
Sharma, Rishi	Red Wolf Energy Trading, LLC	Other Supplier
Sillin, John	The Federal Energy Regulatory Commission	Not Applicable
Slade, Louis	Virginia Electric and Power Company	Transmission Owner
Stacy, Amanda	East Kentucky Power Cooperative, Inc.	Transmission Owner
Staska, Stephanie	Apollo Energy Services	Not Applicable
Stubbe, Judy	Duke Energy Business Services, Inc.	Generation Owner
Stuchell, Jeff	FirstEnergy Solutions Corporation	Transmission Owner
Tibbetts, Maeve	Pierce Atwood LLP	Not Applicable
Walker, Jennifer	Exelon Business Services Company, LLC	Transmission Owner
Watson, Mark	Platts	Not Applicable
Weaver, David	Exelon	Transmission Owner
Webster, John	Icetec.com, Inc.	Other Supplier
Wesley, Len	Red Wolf Energy Trading, LLC	Other Supplier
Wilhite, Chad	FirstEnergy Solutions Corporation	Transmission Owner
Wilmoth, Emily	Dominion Virginia Power	Not Applicable
Wilson, James	Wilson Energy Economics	Not Applicable
Wisersky, Megan	Madison Gas & Electric Company	Other Supplier
Wynn, Laura	Stone, Mattheis, Xenopoulos, & Brew, PC	Not Applicable

York, Katherine

Tennessee Valley Authority (The)

Other Supplier

In Attendance (PJM Participants):

Barrett, Francis	PJM Interconnection, LLC	Not Applicable
Berner, Aaron	PJM Interconnection, LLC	Not Applicable
Bhavaraju, Murty	PJM Interconnection, LLC	Not Applicable
Boyle, Glen	PJM Interconnection, LLC	Not Applicable
Bratspis, David	PJM Interconnection, LLC	Not Applicable
Bresler, Stu	PJM Interconnection, LLC	Not Applicable
Bruno, Patrick	PJM Interconnection, LLC	Not Applicable
Bryson, Michael	PJM Interconnection, LLC	Not Applicable
Budney, David	PJM Interconnection, LLC	Not Applicable
Burlew, Jim	PJM Interconnection, LLC	Not Applicable
Carroll, Rebecca	PJM Interconnection, LLC	Not Applicable
Daugherty, Suzanne	PJM Interconnection, LLC	Not Applicable
Dirani, Rami	PJM Interconnection, LLC	Not Applicable
Dotter, Ray	PJM Interconnection, LLC	Not Applicable
Driscoll, Mary Ellen	PJM Interconnection, LLC	Not Applicable
Duane, Vince	PJM Interconnection, LLC	Not Applicable
Egan, Amanda	PJM Interconnection, LLC	Not Applicable
Esterly, Teri	PJM Interconnection, LLC	Not Applicable
Fabiano, Janell	PJM Interconnection, LLC	Not Applicable
Falco, Christine	PJM Interconnection, LLC	Not Applicable
Fernandez, Ray	PJM Interconnection, LLC	Not Applicable
Foley, Pauline	PJM Interconnection, LLC	Not Applicable
Ford, Adrien	PJM Interconnection, LLC	Not Applicable
Glatz, Suzanne	PJM Interconnection, LLC	Not Applicable
Hendrzak, Chantal	PJM Interconnection, LLC	Not Applicable
Hoang, Liem	PJM Interconnection, LLC	Not Applicable
Holland, Risa	PJM Interconnection, LLC	Not Applicable
Horger, Tim	PJM Interconnection, LLC	Not Applicable
Keech, Adam	PJM Interconnection, LLC	Not Applicable
Keech, Jason	PJM Interconnection, LLC	Not Applicable
Kelley, Michael	PJM Interconnection, LLC	Not Applicable
Kendall, Ross	PJM Interconnection, LLC	Not Applicable
Koza, Frank	PJM Interconnection, LLC	Not Applicable
LaRocque, Matthew	PJM Interconnection, LLC	Not Applicable

Manion, Evelyn	PJM Interconnection, LLC	Not Applicable
McGlynn, Paul	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
Noonan, Tom	PJM Interconnection, LLC	Not Applicable
O'Neill, Jack	PJM Interconnection, LLC	Not Applicable
Ott, Andrew L.	PJM Interconnection, LLC	Not Applicable
Patel, Keyur	PJM Interconnection, LLC	Not Applicable
Phillips, Darlene	PJM Interconnection, LLC	Not Applicable
Robinson, Evelyn	PJM Interconnection, LLC	Not Applicable
Schmitt, Jeff	PJM Interconnection, LLC	Not Applicable
Schuyler, Ken	PJM Interconnection, LLC	Not Applicable
Schweizer, David	PJM Interconnection, LLC	Not Applicable
Sechrist, Erin	PJM Interconnection, LLC	Not Applicable
Shparber, Steve	PJM Interconnection, LLC	Not Applicable
Sitarchyk, Mike	PJM Interconnection, LLC	Not Applicable
Slusser, Jeff	PJM Interconnection, LLC	Not Applicable
Snyder, Sue	PJM Interconnection, LLC	Not Applicable
Stadmeyer, Rebecca	PJM Interconnection, LLC	Not Applicable
Stotesbury, Christina	PJM Interconnection, LLC	Not Applicable
Swimm, Nora C.	PJM Interconnection, LLC	Not Applicable
Thomas, Amber	PJM Interconnection, LLC	Not Applicable
Tribulski, Jennifer	PJM Interconnection, LLC	Not Applicable
Ward, Mike	PJM Interconnection, LLC	Not Applicable
Weiss, Glenn	PJM Interconnection, LLC	Not Applicable
Williams, Stan	PJM Interconnection, LLC	Not Applicable

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