

Markets and Reliability Committee The Chase Center on the Riverfront, Wilmington, DE July 23, 2015 9:30 a.m. – 4:00 p.m. EPT

#### Administration (9:30-9:35)

Mr. Kormos welcomed stakeholders to the meeting and Mr. Anders provided the Anti-trust and Code of Conduct announcements.

#### Endorsements/Approvals (9:35-11:30)

1. Draft Minutes (9:35-9:40)

Minutes of the June 25, 2015 Markets and Reliability Committee (MRC) meeting, and the minutes of the two special meetings of the MRC held on June 10, 2015 and July 15, 2015were **approved** by acclamation with no objections or abstentions.

#### 2. PJM Manuals (9:40-9:55)

- A. Mr. Mike Del Viscio presented proposed revisions to Manual 01: Control Center and Data Exchange Requirements.
- B. Mr. Chris Pilong presented proposed revisions to Manual 13: Emergency Operations.

Following discussion, the proposed revisions in items 2.A and 2.B were **<u>endorsed</u>** by acclamation with no objections or abstentions.

#### 3. Capacity Performance (9:55-10:45)

Mr. Bresler discussed the FERC order received late on July 22, 2015 in dockets ER15-623-002, EL15-29-001, EL15-41-001 and EL15-80-000 regarding participation of demand response (DR) and energy efficiency (EE) resources in the 2016/17 and 2017/2018 Transition Auctions. He noted that the FERC order requires that PJM amend its Tariff to allow DR and EE resources to participate in the two Transition Auctions, and to file changes to the auction schedule to allow meaningful participation. He indicated that the two Transition Auctions would likely be held in the first two weeks of September, 2015, and that a final schedule would be published as soon as possible. He noted that the schedule and plans for the 2018/2019 Base Residual Auction (BRA) remain unchanged.

A. Ms. Terri Esterly discussed proposed revisions to Manual 18: PJM Capacity Market related to Capacity Performance. Mr. Bresler noted comments from several Members indicating their desire for further development of additional detail regarding certain provisions of the Manual revisions that do not directly pertain to the 2018/2019 BRA. He recommended that the proposed Manual 18 revisions be endorsed subject to continued review of these non-BRA related provisions, and there were no objections. Following discussion, the proposed revisions were <u>endorsed</u> by acclamation with one objection and 25 abstentions.



B. Mr. Tom Falin discussed proposed revisions to Manual 20: PJM Resource Adequacy Analysis related to the determination of Limited-Availability Resource Constraints under Capacity Performance. Following discussion, the proposed revisions were <u>endorsed</u> by acclamation with five objections and eight abstentions.

#### 4. FERC Order 1000 Proposal Fee Update (10:45-10:55)

Mr. Fran Barrett presented a proposed revision to previously endorsed proposal fees. Following discussion, the proposed revisions were **endorsed** by acclamation with no objections or abstentions.

#### 5. Merchant Network Upgrade (10:55-11:10)

Mr. Jason Connell presented proposed Tariff revisions related to merchant network upgrades. Following discussion, the proposed revisions were **<u>endorsed</u>** by acclamation with no objections or abstentions.

#### 6. Timing of Replacement Capacity Transactions (11:10-11:25)

Mr. Paul Scheidecker presented a proposal related to timing of procuring replacement capacity developed by the Market Implementation Committee. Mr. Tom Rutigliano, Enerwise Global Technologies, Inc., proposed a friendly amendment to allow replacement transactions before November 30<sup>th</sup> prior to the delivery year under the same conditions as currently apply to transactions made after that date. Several Members objected and therefore Mr. Rutigliano moved the proposal as an alternate motion. Following discussion, the main motion was <u>endorsed</u> in a sector-weighted vote with 3.44 in favor.

### 7. Market Data Confidentiality Clarifications (11:25-11:40)

Mr. Tom Zadlo presented a proposed problem statement and issue charge related to Market Data Confidentiality Clarifications. Mr. Barker requested that the work be assigned to the Market Implementation Committee, and there were no objections to this assignment. Dr. Joe Bowring requested that Three Pivotal Supplier Test results be added to the scope, and there were no objections to this being added to the scope as a friendly amendment. Mr. Fitch noted that proposed Manual revisions had been posted with the materials for the meeting, and requested clarification that the action requested at this meeting was limited to approval of the problem statement and issue charge. Mr. Kormos provided that confirmation. Mr. Bleiweis proposed a friendly amendment to increase the scope to include a generalized review of confidentiality provisions. This was not considered friendly. Following discussion the proposed problem statement and issue charge (as amended to include the Three Pivotal Supplier Test results) were **approved** by acclamation with no objections and one abstention.

#### 8. Regulation Market Issues (11:40-12:00)

Dr. Joe Bowring, Monitoring Analytics, will present a proposed problem statement and issue charge related to Regulation Market Issues, and noted that the issue should be assigned to a new senior task force reporting to the MRC. Following discussion the proposed problem statement and issue charge



were **<u>approved</u>** in a sector-weighted vote with 3.29 in favor (note that the threshold for approval of proposed problem statements and issue charges is 2.50).

#### 9. Markets Related Governing Document Updates (12:45-1:00)

Ms. Jacqui Hugee presented a proposed problem statement and issue charge regarding markets related governing document updates. Mr. Dave Anders suggested that the scope be assigned to the Tariff Harmonization Senior Task Force (THSTF), and that the THSTF be converted to a subcommittee reporting to the MRC. There were no objections to this assignment. Following discussion, the proposed problem statement and issue charge were **approved** by acclamation with no objections or abstentions.

#### 10. FTR/ARR Senior Task Force (1:00-1:15)

Mr. Steve Lieberman, ODEC, moved and Mr. John Rohrbach seconded a proposal related to solutions developed but not endorsed by the FTRSTF. Following discussion the motion <u>failed</u> in a sector-weighted vote with 2.95 in favor. Mr. Carl Johnson moved and Mr. Jim Jablonski seconded that the FTRSTF be sunset. The motion was <u>approved</u> by acclamation with no objections or abstentions.

#### 11. Tariff Harmonization Senior Task Force (1:15-1:30)

Ms. Janell Fabiano presented proposed Operating Agreement and Reliability Assurance agreement revisions developed by the THSTF. Following discussion, the proposed revisions were **<u>endorsed</u>** by acclamation with no objections or abstentions.

#### 12. Tariff Harmonization Senior Task Force (THSTF) (1:30-1:45)

Ms. Janell Fabiano presented additional proposed Operating Agreement and Reliability Assurance agreement revisions developed by the THSTF. Mr. Mike Kormos requested that the MRC endorse these proposed revisions at their first reading; there was no objection. Following discussion, the proposed revisions were **endorsed** by acclamation with no objections or abstentions.

#### First Readings (11:30-3:45)

#### 13. External Capacity Transfer Rights (1:45-2:00)

Ms. Jen Tribulski, PJM, and Mr. Troy Fodor, Illinois Municipal Electric Agency, presented a proposal to address the Capacity Rights Issue Charge. The Committee will be asked to endorse the proposal at its next meeting.

#### 14. Transparency of Operational Changes (2:20-2:35)

Ms. Lisa Morelli discussed a proposal regarding the Transparency of Operational Changes. The Committee will be asked to endorse the associated manual revisions at its next meeting.



#### 15. Markets Gateway (3:25-3:40)

Ms. Carla Thew and Mr. Steve Shparber discussed the evolution of eMkt to Markets Gateway, and Mr. Steve Shparber will present associated proposed Tariff revisions. The Committee will be asked to endorse the proposed revisions at it a future meeting.

#### 16. PJM Manuals (3:40-4:00)

A. Mr. D'Antonio reviewed changes to Manual 37: Reliability Coordination. The Committee will be asked to endorse these proposed revisions at its next meeting.

### Future Agenda Items (4:00)

No new future agenda items were identified.

Future Meeting Dates			
August 27, 2015 October 1, 2015 October 22, 2015 November 19, 2015 December 17, 2015	9:00 a.m. PJM 9:00 a.m. Wiln 9:00 a.m. Wiln	nington, DE I Conference & Training Center, Audubon, PA nington, DE nington, DE nington, DE	
In Attendance (Cha	ir/Secretary):		
Kormos, Michael J.	PJM Interconnection, LLC	Not Applicable	
Anders, Dave	PJM Interconnection, LLC	Not Applicable	
In Attendance (Vot	ing Participants):		
Barker, Jason	Exelon Business Services Company, LLC	Transmission Owner	
Bleiweis, Bruce	Rep'g. Alphataraxia Palladium LLC	Other Supplier	
Bleiweis, Bruce	Rep'g. BJ Energy, LLC	Other Supplier	
Bleiweis, Bruce	Rep'g. DC Energy LLC	Other Supplier	
Bleiweis, Bruce	Rep'g. H-P Energy Resources LLC	Other Supplier	
Bleiweis, Bruce	Rep'g. Inertia Power I, LLC	Other Supplier	
Bolan, Martin	FirstEnergy Solutions Corp.	Transmission Owner	
Brodbeck, John	Potomac Electric Power Company	Electric Distributor	
Bruce, Susan	Rep'g. Air Liquide Industrial U.S., LP	End User Customer	
Bruce, Susan	Rep'g. Air Products & Chemicals, Inc.	End User 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 User Customer	
Bruce, Susan	Rep'g. Letterkenny Industrial Development Author	prity Electric Distributor	
Bruce, Susan	Rep'g. Linde LLC	End User Customer	



Bruce, Susan Bruce, Susan Bruce, Susan Bruce, Susan Bruce, Susan Campbell, Bruce Campbell, Bruce Citrolo, John Cox, Jason Dugan, Chuck Ellison, Alan Fitch, Neal Foladare, Kenneth Fondacci, Luis Fuess, Jay Garnett, Bryan Greening, Michele Griffiths, Dan Guerry, Katie Hastings, David Hastings, David Hastings, David Hastings, David Hastings, David Hoatson, Tom

Rep'g. MeadWestvaco Corporation Rep'g. Praxair, Inc. Rep'g. Procter & Gamble Paper Products Company (The) Rep'g. Trustees of the U of PA, dba University of Pennsylvania Rep'g. Wellsboro Electric Company Rep'g. EnergyConnect, Inc. Rep'g. Mid-Atlantic Power Partners Public Service Electric & Gas Company Dynegy Marketing & Trade, LLC East Kentucky Power Cooperative, Inc. Grays Ferry Cogeneration Partnership NRG Power Marketing LLC IMG Midstream LLC North Carolina Electric Membership Corporation Rep'g. Castlebridge Energy Group, LLC Rep'g. Church Hill Solar Farm, LLC Rep'g. Diamond State Generation Partners, LLC Rep'g. Energy Consulting Services LLC Rep'g. Icetec.com, Inc. Rep'g. Kuehne Chemical Company, Inc. Rep'g. PBF Power Marketing LLC **Duke Energy Business Services LLC** Talen Energy Marketing, LLC Rep'g. Division of the Public Advocate of State of Delaware Rep'g. Illinois Citizens Utility Board Rep'g. Indiana Office of Utility Consumer Counsel Rep'g. Maryland Office of Peoples Counsel Rep'g. New Jersey Div. of the Ratepayer Advocate Rep'g. Ofc... People's Counsel ... District of Columbia Rep'g. Office of the Attorney General, Kentucky Rep'g. Office of the Ohio Consumers' Counsel Rep'g. Pennsylvania Office of Consumer Advocate Rep'g. West Virginia Consumer Advocate Division EnerNOC, Inc. Rep'g. Mercuria Energy America, Inc. Rep'g. Northstar Trading Ltd. Rep'g. Saracen Energy East LP Rep'g. SESCO Enterprises LLC Rep'g. Twin Cities Power, LLC West Deptford Energy, LLC

End User Customer End User Customer End User Customer End User Customer **Electric Distributor** Other Supplier Other Supplier Transmission Owner Generation Owner Transmission Owner **Generation Owner Generation Owner Generation Owner** Electric Distributor Other Supplier Generation Owner **Generation Owner** Other Supplier Other Supplier Other Supplier Generation Owner Transmission Owner **Generation Owner** End User Customer Other Supplier Other Supplier Other Supplier Other Supplier Other Supplier Other Supplier Generation Owner



Horstmann, John Horton, Dana Jablonski, James Jardot, Gina Johnson, Carl Kelly, Stephen Kogut, George Lieberman, Steven Lieberman, Steven Lonergan, Brian

Dayton Power and Light Company (The) Appalachian Power Company (AEP Generation) Rep'g. Borough of Butler, Butler Electric Division Rep'g. Borough of Lavallette, New Jersey Rep'g. Borough of Madison, New Jersey Rep'g. Borough of Milltown Rep'g. Borough of Park Ridge, New Jersey Rep'g. Borough of Pemberton Rep'g. Borough of Seaside Heights, New Jersey Rep'a. Borough of South River, New Jersey Rep'g. Vineland Municipal Electric Utility Essential Power Rock Springs, LLC Rep'g. Allegheny Electric Cooperative, Inc. Rep'g. American Municipal Power, Inc. Rep'g. Blue Ridge Power Agency, Inc. Rep'g. Borough of Chambersburg (DTEET) Rep'g. Buckeye Power, Inc. Rep'g. Central Virginia Electric Cooperative Rep'g. City of Dover, Delaware Rep'g. Delaware Municipal Electric Corporation Rep'g. Easton Utilities Commission Rep'g. Energy Cooperative Association of PA Rep'g. Galt Power Inc. Rep'g. Hagerstown Light Department Rep'g. Illinois Municipal Electric Agency Rep'g. Indiana Municipal Power Agency Rep'g. Madison Gas & Electric Company Rep'g. Mont Alto, PA (Borough of) Rep'g. North Carolina Electric Membership Corporation Rep'g. North Carolina Municipal Power Agency #1 Rep'g. Northern Virginia Electric Cooperative (NOVEC) Rep'g. Old Dominion Electric Cooperative Rep'g. Thurmont Municipal Light Company Rep'g. Williamsport, MD (Town of) Rep'g. WPPI Energy Brookfield Energy Marketing LP New York Power Authority DTE Energy Trading, Inc. Old Dominion Electric Cooperative Elliott Bay Energy Trading, LLC

Transmission Owner Transmission Owner Electric Distributor **Electric Distributor Electric Distributor** Electric Distributor **Electric Distributor Electric Distributor** Electric Distributor **Electric Distributor Electric Distributor** Transmission Owner **Electric Distributor Electric Distributor** Electric Distributor Other Supplier Other Supplier **Electric Distributor** Electric Distributor **Generation Owner** Other Supplier **Electric Distributor Electric Distributor** Other Supplier Electric Distributor Electric Distributor **Electric Distributor Electric Distributor** Other Supplier Other Supplier Other Supplier Other Supplier **Electric Distributor** Other Supplier



Long, Scott Ma, Alex Martin, Aaron Melnyk, Markian Moerner, Lisa Norton, Chris Peoples, John Philips, Marji Prokop, Brenda Richardson, Frank (Chip) Riding, MQ Rohrbach, John Rohrbach, John Rushing, Nathan Rutigliano, Tom Rutigliano, Tom Rutigliano, Tom Rutigliano, Tom Scarp, David Scoglietti, Barbara Singh, Harry Skucas, Ruta Stewart, Travis

Allegheny Electric Cooperative, Inc. Invenergy, LLC CMS Energy Resource Management Company Atlantic Grid Operations A, LLC Virginia Electric & Power Company American Municipal Power, Inc. **Duquesne Light Company** Direct Energy Business, LLC ITC Mid-Atlantic Development LLC PPL Electric Utilities Corp. dba PPL Utilities (LSE) Essential Power Rock Springs, LLC Rep'g. Southern Maryland Electric Cooperative Rep'g. Wabash Valley Power Association, Inc. CPV Maryland, LLC Rep'g. Achieving Equilibrium LLC Rep'g. Demansys Energy, LLC Rep'g. EMC Development Company, Inc. Rep'g. Enerwise Global Technologies, Inc. Calpine Energy Services, L.P. Tangent Energy Solutions, Inc. J. Aron & Company Rep'g. Apple Group LLC Rep'g. Dufossat Capital I, LLC Rep'g. Dyon, LLC Rep'g. E Minus LLC Rep'g. Falcon Energy, LLC Rep'g. Great Bay Energy I, LLC Rep'g. Greene Energy, LLC Rep'g. Hexis Energy Trading, LLC Rep'g. Liberty Hill Power LLC Rep'g. Mac Trading, Inc Rep'g. MET MA, LLC Rep'g. Monterey MA, LLC Rep'g. Pure Energy, Inc. Rep'g. Red Wolf Energy Trading, LLC Rep'g. RJUMR Energy Partners Corp. (UTC) Rep'g. Solea Energy, LLC Rep'g. Southard Energy Partners LLC Rep'g. Yasmin Partners LLC Reg'g. NextEra Energy Power Marketing, LLC

Electric Distributor **Generation Owner** Other Supplier Other Supplier **Transmission Owner** Electric Distributor **Transmission Owner** Other Supplier Other Supplier Transmission Owner Transmission Owner **Electric Distributor Electric Distributor** Generation Owner Other Supplier Other Supplier Other Supplier Other Supplier **Generation Owner** Other Supplier None Other Supplier Other Supplier Other Supplier **Generation Owner** 



Stewart, Travis Stewart, Travis Thompson, Matt Trayers, Barry Wadsworth, Joe Yu, Joel Rep'g. Jersey Green Energy LLC Rep'g. York County Solid Waste and Refuse Authority Property Endeavors, LLC Citigroup Energy, Inc. Vitol Inc. Rockland Electric Company Other Supplier Generation Owner End User Customer Other Supplier Other Supplier Transmission Owner

#### In Attendance (Non-Voting Participants):

Ainspan, Malcolm Apgar, John Azar, Abe Bagot, Nancy Bainbridge, Thomas Barkanic, Bob Batta, Michael Behrens, Jason Beltes. Alex Benchek, Jim Berger, Ken Berlinski, Mike Bickerstaff. Dean Binet, Tom Bloom. David Bunch, Kevin Canchi. Devendra Caylor, Ryan Chen. Jennifer Crawford, Jonathan Czigler, Frank Davis, Connie Dayal, Hanish DeGeeter, Ralph DeLosa, Joseph Denavas, Joe Diamant, Martin Dinicola, Laura Dizikes, Cynthia Doan, Lynn Doremus, Steven Farber, John

Energy Curtailment Specialists, Inc. **BAM Funds** Deutsche Bank **Electric Power Supply Association** FirstEnergy Solutions Corporation Talen Energy Marketing, LLC Virginia Electric and Power Company Tenaska Power Services Co. NorthBridge Group FirstEnergy Solutions Corporation **Dominion Virginia Power Customized Energy Solutions** Panda Power Funds PA Consulting Baltimore Gas and Electric Company EDF Trading North America, LLC Monitoring Analytics, LLC Tudor, Pickering, Holt & Co. NRDC/FERC Project Bloomberg News PSEG **Cleveland Public Power** Hemsworth Capital Management LLC Public Service Commission of Maryland State of Delaware Public Service Commission Potomac Electric Power Company PSEG FirstEnergy Solutions Corporation Chicago Tribune Bloomberg News EnerNOC, Inc. **Delaware Public Service Commission** 

Other Supplier Not Applicable Not Applicable Not Applicable Transmission Owner Generation Owner Transmission Owner Generation Owner Not Applicable Transmission Owner Not Applicable Not Applicable Generation Owner Not Applicable Transmission Owner Other Supplier Not Applicable Not Applicable Not Applicable Not Applicable Transmission Owner Electric Distributor Not Applicable Not Applicable Not Applicable Electric Distributor Transmission Owner Transmission Owner Not Applicable Not Applicable Other Supplier Not Applicable



Feierabend, Rick Fernandes, John Fernandez, Jonathan Fisher, Amy Fukuda, Shin Gallagher, William Gebolys, Debbie Godson, Gloria Guler, Teoman Haas, Howard Hall, Walter Hanson, Mark Harmon, Mike Hayik, Seth Hebert, Chris Heidorn, Richard Heisey, Bradley Herel, Suzanne Hilaski, Steve Hitch, George Huis, Diane Huntoon, Stephen Hyzinski, Tom Icart, Eric James, Denise Janicki, Diane Jasani, Sachin Jett, William Johnson, Nick Johnson, Nick Jones, Ryan Kaczanowski, Marek Kerman, Feliks Knight, Chris Korczykowski, Ryan Kothyakapu, Rakesh Kueker, Daniel Levine, Jeffrey Liang-Nicol, Cecilia Logan, Sharon

**Dominion Virginia Power** Renewable Energy Systems Americas The Federal Energy Regulatory Commission Homer City Generation, L.P. Carlson Capital, L.P. A.F. Mensah, Inc. Public Utilities Commission of Ohio Potomac Electric Power Company Goldman Sachs Monitoring Analytics, LLC Maryland Public Service Commission Illinois Commerce Commission Ameren Energy Marketing Company Monitoring Analytics, LLC **Beacon Power Corporation RTO** Insider Tenaska Power Services Co. **RTO** Insider Pepco Holdings Incorporated **Dominion Virginia Power** North Carolina Electric Membership Corporation Energy Counsel, LLP Talen Energy Marketing, LLC The Federal Energy Regulatory Commission Dominion Energy Marketing, Inc. Boston Energy Trading and Marketing LLC Red Wolf Energy Trading, LLC Duke Energy Business Services, Inc. Tenaska Power Services Co. Penn State University Allegheny Electric Cooperative, Inc. Baltimore Gas and Electric Company Visium Asset Management Argus Media NuEnergen, LLC Illinois Municipal Electric Agency J-Power USA GDF Suez Energy Marketing NA, Inc. FirstEnergy Solutions Corporation The Federal Energy Regulatory Commission

Not Applicable Not Applicable Not Applicable **Generation Owner** Not Applicable Other Supplier Not Applicable **Electric Distributor** Not Applicable Not Applicable Not Applicable Not Applicable **Generation Owner** Not Applicable Other Supplier Not Applicable **Generation Owner** Not Applicable Not Applicable Not Applicable **Electric Distributor** Not Applicable **Generation Owner** Not Applicable Generation Owner **Generation Owner** Other Supplier **Generation Owner Generation Owner** Not Applicable Electric Distributor Transmission Owner Not Applicable Not Applicable Other Supplier **Electric Distributor** Not Applicable Other Supplier **Transmission Owner** Not Applicable



Lopez, Danielle	Office of the Peoples Counsel for the District of Columbia
Mah, Norman	ConEdison Energy Inc.
Mariam, Yohannes	Office of the Peoples Counsel for the District of Columbia
Marrin, Peter	SNL Energy
Martin, Valerie	The Federal Energy Regulatory Commission
Marton, Dave	FirstEnergy Solutions Corporation
McAdams, Julius	Red Wolf Energy Trading, LLC
McAlister, Lisa	American Municipal Power, Inc.
McDonald, Steve	Customized Energy Solutions, Ltd.*
Merola, Becky	Noble Americas Energy Solutions LLC
Metzler, Jacob	Castleton Commodities Merchant Trading L.P.
Miller, John	Commonwealth Edison Company
Mok, Alan	Duke Energy Business Services LLC
Monroe, Alicia	The Federal Energy Regulatory Commission
Nemeroff, Stacy	Bloomberg News
O'Connor, Siobhan	The Energy Authority
Ondayko, Brock	AEP
Orlando, Jim	Northern Indiana Public Service Company
Patterson, Paul	Glenrock Associates
Peebles, Andy	Saracen Energy East LP
Pratzon, David	GT Power Group
Rains, Robert	Washington Analysis
Rismiller, Randy	The Illinois Commerce Commission
Rivera-Linares, Corina	Pennwell
Robins, Pip	EMC Development Company, Inc.
Saini, Ishwar	Macquarie Energy LLC
Sanger, Martha	AEP
Scherer, Paul	Commonwealth Edison Company
Shanker, Roy	Hydro Quebec
Shelton, Chris	Millenium Power, Inc
Sidhom, Noha	Inertia Power I, LLC
Sillin, John	The Federal Energy Regulatory Commission
Slade, Louis	Virginia Electric and Power Company
Slifer, Diane	Viauna
Stuchell, Jeff	FirstEnergy Solutions Corporation
Theodore, Sharon	Electric Power Supply Association
Thomas, Glen	GT Power Group
Verderame, John	Duke American Transmission Company

Not Applicable Other Supplier Not Applicable Not Applicable Not Applicable Transmission Owner Other Supplier **Generation Owner** Not Applicable Other Supplier Other Supplier **Transmission Owner Transmission Owner** Not Applicable Not Applicable Other Supplier Transmission Owner Other Supplier Not Applicable Other Supplier Not Applicable Not Applicable Not Applicable Not Applicable Other Supplier Other Supplier **Transmission Owner** Transmission Owner Not Applicable Not Applicable Other Supplier Not Applicable **Transmission Owner** Not Applicable **Transmission Owner** Not Applicable Not Applicable Not Applicable



Vogel, Anne Watson, Mark Weaver, David Weber, Adam Weber, Harry Webster, John Wellborn, Samir Wilhite, Chad Wilmoth, Emily Wood, Gordon York, Katherine Zephyr, Frantz

American Electric Power Platts Exelon Union Electric Company d/b/a Ameren Missouri Bloomberg News Icetec.com, Inc. The Federal Energy Regulatory Commission FirstEnergy Solutions Corporation Dominion Virginia Power ETC Endure Energy, LLC Tennessee Valley Authority (The) Public Service Electric & Gas Company Transmission Owner Not Applicable Transmission Owner Other Supplier Not Applicable Other Supplier Not Applicable Transmission Owner Not Applicable Other Supplier Other Supplier Transmission Owner

#### In Attendance (PJM Participants):

Baker, Scott		
Barrett, Francis		
Bastian, Jeff		
Bhavaraju, Murty		
Bratspis, David		
Bresler, Stu		
Bryson, Michael		
Burlew, Jim		
Ciabattoni, Joe		
Coyne, Suzanne		
D'Antonio, Phil		
Dirani, Rami		
Dolan, James		
Driscoll, Mary Ellen		
DuPont Kidd, Paula		
Egan, Amanda		
Endress, Eric		
Esterly, Teri		
Fabiano, Janell		
Falin, Thomas		
Ford, Adrien		
Franks, Chris		
Glazer, Craig		
Harhai, Michelle		
Hartung, Dean		
Hauske, Thomas		

PJM Interconnection, LLC PJM Interconnection, LLC

PJM Interconnection, LLC

Not Applicable Not Applicable



Herling, Steven Herman, Michael Holland, Risa Horger, Tim Hsia, Eric Hugee, Jacqulynn Kelley, Michael Kenney, Susan Koza, Frank Langbein, Pete LaRocque, Matthew Loomis, Harold Manion, Evelyn McGlynn, Paul McLaverty, Megan Nice, Ryan Noonan, Tom O'Neill, Jack Pilong, Chris Price, Robert Quintavalla, Ginger Scheideker, Paul Schuyler, Ken Sechrist, Erin Shoemaker, Jason Shparber, Steve Slusser, Jeff Sotkiewicz, Paul Souder, Michelle Stotesbury, Christina Swimm, Nora C. Tacka, Natalie Thew, Carla Tribulski, Jennifer Velasco, Cheryl Walter, Laura Weiss, Glenn Williams, Stan Wolfinger, Robert Yeager, Leslie

PJM Interconnection, LLC Not Applicable Not Applicable



Zadlo, Thomas

PJM Interconnection, LLC

Not Applicable

Author: D. A. Anders