

Markets & Reliability Committee

Webex Only

September 29, 2021

9:00 a.m. – 1:15 p.m. EPT

Administration

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

Consent Agenda

Items A and B were **approved/endorsed** by acclamation with no objections or abstentions:

- A. Minutes of the August 25, 2021 meeting of the Markets and Reliability Committee (MRC).
- B. Revisions to the Regional Transmission and Energy Scheduling Practices document.

Endorsements

1. Energy Price Formation Charter

Susan Kenney reviewed proposed revisions to the EPFSTF Charter. Following discussion, the proposed revisions were **approved** in a sector-weighted vote with 2.88 in favor (note: the approval threshold for Charter revisions is simple majority).

[Issue Tracking: Operating Reserve Demand Curve & Transmission Constraint Penalty Factors](#)

2. Natural Gas and Electric Markets Issue Charge

Jim Davis, Dominion Energy, reviewed a Problem Statement and Issue Charge related to natural gas and electric market coordination. Greg Poulos, CAPS, moved on behalf of the New Jersey Division of Rate Counsel, and seconded on behalf of the Delaware Division of the Public Advocate, deferring voting on the proposed Issue Charge until the December, 2021 MRC meeting. The motion **failed** in a sector-weighted vote with 2.50 in favor. Following discussion, the proposed Issue Charge was **approved** in a sector-weighted vote with 4.26 in favor.

3. Market Suspension

Stefan Starkov reviewed proposed Operating Agreement (OA) and Tariff revisions to address rules related to market suspension. David Scarpignato, Calpine, moved and Becky Robinson, Vistra, seconded deferring voting on the proposed OA and Tariff revisions until such time as the Market Implementation Committee (MIC) has considered and voted upon (either affirmatively or negatively) supplemental procedures that would govern in the event of a longer-term market suspension, which could then be added to the existing proposal. The motion **passed** in a sector-weighted vote with 4.05 in favor. It was noted that the substance of the posted proposed friendly amendment will be reviewed in the upcoming MIC deliberations.

[Issue Tracking: Rules Related to Market Suspension](#)

4. Initial Margining Solution

- A. Anita Patel provided an update on the conclusion of the Financial Risk Mitigation Senior Task Force (FRMSTF).
- B. Jessica Troiano reviewed proposed Tariff revisions supporting the FRMSTF endorsed proposal.

Mark Hurwich, Elliot Bay, offered a proposed friendly amendment to the proposed Tariff revisions on p. 50 as highlighted below:

For Market Participant customer accounts for which FTR bids have been submitted into the current FTR auction, if the Market Participant's FTR Credit Requirement exceeds its credit available ~~for FTRs as a result of the mark-to-auction requirements~~ for the Market Participant's portfolio of FTRs in the tentative cleared solution for an FTR auction (or auction round), PJM shall issue a Collateral Call to the Market Participant, and the Market Participant must fulfill

Adrien Ford, ODEC, offered a proposed friendly amendment to the proposed Tariff revisions capture "70/30" weighting of the weighted aggregation method. This was captured by inserting "(30%)" after "straight sum", and "(70%)" after "weighted root sum of squares" in the last sentence in the following paragraph on p. 46:

(i) FTR Obligations IM

Initial margin values for Financial Transmission Right Obligations shall be determined utilizing a historical simulation value-at-risk methodology that calculates the size and value at risk of the applicable FTR portfolio based on a defined confidence interval and subject to a weighted aggregation method that is represented by a straight sum for long term positions and a combination of straight sum and weighted root sum of squares for balance of planning period positions.

There were no objections to either proposed amendment, and therefore both of these proposed amendments were incorporated into the proposed Tariff revisions.

- C. James Ramsey, Perast Capital, and Matt Holstein, Duke Energy, discussed perspectives on the Main Motion.
- D. Greg Poulos, on behalf of New Jersey Division of the Rate Counsel, indicated his intention to move the PJM Proposal (FRMSTF Package A) as an alternative proposal should the main motion fail.

Following discussion, the main motion (as amended) **passed** in a sector-weighted vote with 3.42 in favor. The committee voted to sunset the FRMSTF by acclamation with no objections or abstentions.

[Issue Tracking: Financial Risk Mitigation](#)

First Readings

5. Resource Adequacy Charter

Dave Anders reviewed a proposed Charter for a new Resource Adequacy Sr. Task Force to address resource adequacy topics discussed in the Capacity Workshops. The committee will be asked to approve the proposed Charter at its next meeting.

6. 2021 Reserve Requirement Study Results

Patricio Rocha Garrido reviewed the 2021 Reserve Requirement Study preliminary results (IRM, FPR). The committee will be asked to endorse the study results at its next meeting.

7. Behind the Meter Generation Business Rules on Status Changes

Theresa Esterly reviewed a proposed updates addressing behind the meter generation business rules on status changes. The committee will be asked to endorse the proposed updates and corresponding Manual and Tariff revisions at its next meeting.

[Issue Tracking: Behind the Meter Generation Business Rules on Status Changes](#)

8. Incremental & No Load Energy Offer

Tom Hauske reviewed proposed revisions in Manual 15: Cost Development Guidelines, the OA, and the Tariff to address incremental and no load energy offers. The committee will be asked to endorse the revisions at its next meeting.

9. Solar-Battery Hybrid Resources

Andrew Levitt reviewed a proposed solution package to address various aspects of market participation by solar-battery hybrid resources. The committee will be asked to endorse the proposed solution and corresponding Tariff revisions at its next meeting.

[Issue Tracking: Solar-Battery Hybrid Resources](#)

10. Undefined Regulation Mileage Ratio Calculation

A. Michael Olaleye reviewed the PJM proposal addressing the undefined regulation mileage ratio calculation.

B. Adrien Ford, ODEC, noted that she will offer the IMM Proposal as an alternative motion.

The committee will be asked to endorse a proposed solution and corresponding Manual and Tariff revisions at its next meeting.

[Issue Tracking: Undefined Regulation Mileage Ratio Calculation](#)

11. Energy Efficiency (EE) Addback

Jeff Bastian provided a first read of the IMM/PJM proposal addressing the calculation of the EE Addback. The committee will be asked to endorse the proposed solution and corresponding Manual revisions at its next meeting.

[Issue Tracking: Energy Efficiency Addback](#)

12. ARR/FTR Market Task Force Update

- A. Dave Anders and Brian Chmielewski provided an overview of the activities of the task force and proposals developed through the ARR/FTR Market Task Force. Brian Chmielewski provided additional detail on the PJM/Joint Stakeholder proposal.
- B. Joe Bowring, IMM, provided additional detail on the IMM proposal. Erik Heinle, Office of the Peoples' Counsel for the District of Columbia (DCOPC), and David Canter, AEP, summarized the DCOPC and AEP proposals, respectively.

The committee will be asked to endorse a proposed solution and corresponding Manual and Tariff revisions at its next meeting.

[Issue Tracking: ARR/FTR Market Review](#)

Future Agenda Items

No new future agenda items were identified.

| Future Meeting Dates and Materials | | | Materials Due to Secretary | Materials Published |
|------------------------------------|-----------|----------|----------------------------|---------------------|
| Date | Time | Location | | |
| October 20, 2021 | 9:00 a.m. | WebEx | October 8, 2021 | October 13, 2021 |
| November 17, 2021 | 9:00 a.m. | WebEx | November 5, 2021 | November 10, 2021 |
| December 15, 2021 | 9:00 a.m. | WebEx | December 3, 2021 | December 8, 2021 |

Author: D. Anders

Meeting Attendance

Chair/Secretary

| Last Name | First Name | Company | Sector |
|-----------|------------|--------------------------|----------------|
| Bresler | Stu | PJM Interconnection, LLC | Not Applicable |
| Anders | David | PJM Interconnection, LLC | Not Applicable |

Voting Attendees

| Last Name | First Name | Company Name | Sector |
|-----------|------------|---------------------------------------|--------------------|
| Barker | Jason | Exelon Business Services Company, LLC | Transmission Owner |
| Benchek | Jim | American Transmission Systems, Inc. | Transmission Owner |

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|-------------|-----------|---|----------------------|
| Bleiweis | Bruce | DC Energy, LLC | Other Supplier |
| Borgatti | Michael | Rep'g. Hazleton Generation LLC | Generation Owner |
| Borgatti | Michael | Rep'g. Jersey Green Energy, LLC | Other Supplier |
| Borgatti | Michael | Rep'g. Leeward Asset Management, LLC | Generation Owner |
| 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. Recurrent Energy, 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. Cleveland-Cliffs Steel LLC | End-Use Customer |
| Bruce | Susan | Rep'g. Gerdau Ameristeel Energy, Inc. | End-Use Customer |
| 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. Linde Inc. | End-Use Customer |
| Bruce | Susan | Rep'g. MeadWestvaco Corporation | End-Use Customer |
| Bruce | Susan | Rep'g. Messer LLC | End-Use Customer |
| Bruce | Susan | Rep'g. Procter & Gamble Paper Products Company (The) | End-Use Customer |
| Bruce | Susan | Rep'g. Trustees of the University of Pennsylvania | End-Use Customer |
| Bruce | Susan | Rep'g. Wellsboro Electric Company | Electric Distributor |
| Canter | David | Appalachian Power Company | Transmission Owner |
| Chang | Sean | Shell Energy North America (US), L.P. | Other Supplier |
| Chen | Yan | Star Jasmine Houston LLC | Other Supplier |
| Chu | Michael | Forest Investment Group, LLC | Other Supplier |
| Davis | James | Virginia Electric & Power Company | Transmission Owner |
| Domian | Christin | Duquesne Light Company | Transmission Owner |
| Duensing | Allison | Saracen Energy East LP | Other Supplier |
| Dugan | Chuck | East Kentucky Power Cooperative, Inc. | Transmission Owner |
| Fazio | Danielle | Engelhart CTP (US) LLC | Other Supplier |
| Foladare | Kenneth | Geenex Solar LLC | Other Supplier |
| Ford | Adrien | Old Dominion Electric Cooperative | Electric Distributor |
| Fuess | Christian | Rep'g. Diamond State Generation Partners, LLC | Generation Owner |
| Fuess | Christian | Rep'g. Icetec.com, Inc. | Other Supplier |
| Fuess | Christian | Rep'g. Kuehne Chemical Company, Inc. | End-Use Customer |
| Fuess | Christian | Rep'g. NextPower III US Holdco Inc. | Generation Owner |
| Fuess | Christian | Rep'g. PBF Power Marketing, LLC | End-Use Customer |
| Garnett | Bryan | Duke Energy Business Services LLC | Transmission Owner |
| Hepplewhite | Peter | Wrigley Capital LLC | Other Supplier |
| Hoatson | Tom | Riverside Generating Company, L.L.C. | Generation Owner |
| Hohenshilt | Jennifer | Talen Energy Marketing, LLC | Generation Owner |
| Horstmann | John | Dayton Power & Light Company (The) | Transmission Owner |
| Hurwich | Mark | Elliott Bay Energy Trading, LLC | Other Supplier |
| Hyzinski | Thomas | Rep'g. Carroll County Energy LLC | Generation Owner |
| Hyzinski | Thomas | Rep'g. Dynegy Marketing and Trade, LLC | Generation Owner |
| Hyzinski | Thomas | Rep'g. GenOn Energy Management, LLC | Generation Owner |
| Islam | Lubaba | Rockland Electric Company | Transmission Owner |
| Janicki | Diane | Boston Energy Trading and Marketing LLC | Other Supplier |
| Jardot | Gina | NRG Power Marketing, LLC | Generation Owner |
| Johnson | Carl | Rep'g. Allegheny Electric Cooperative, Inc. | Electric Distributor |
| 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 |

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| 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 | Electric Distributor |
| Johnson | Carl | Rep'g. Michigan Public Power Agency | Electric Distributor |
| 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 |
| Li | Grace | Altro Power LLC | Other Supplier |
| Lieberman | Steven | American Municipal Power, 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. Office of the People's Counsel for the District of Columbia | End-Use Customer |
| Poulos | Greg | Rep'g. Ohio Consumers' Counsel | End-Use Customer |
| Poulos | Greg | Rep'g. 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 |
| Prokop | Brenda | ITC Interconnection LLC | Transmission Owner |
| Ramsey | James | Perast Fund LP | Other Supplier |
| Rohrbach | John | Rep'g. Big Savage, LLC | Generation Owner |
| Rohrbach | John | Rep'g. Kentucky Municipal Energy Agency | Electric Distributor |
| Rohrbach | John | Rep'g. Southern Maryland Electric Cooperative, Inc. | Electric Distributor |
| Rohrbach | John | Rep'g. Wabash Valley Power Association, Inc. | Electric Distributor |
| Rooney | Alexa | PPL Electric Utilities Corporation d/b/a PPL Utilities | Transmission Owner |
| Scarpignato | David | Calpine Energy Services, L.P. | Generation Owner |
| Sidhom | Noha | Rep'g. Appian Way Energy Partners MidAtlantic, LLC | Other Supplier |
| Sidhom | Noha | Rep'g. SESCO Enterprises, LLC | Other Supplier |
| Silveira | Fabiano | Strom Power, LLC | 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. Greene Energy NE LLC | Other Supplier |
| Skucas | Ruta | Rep'g. Hexis Energy Trading, LLC | Other Supplier |
| Skucas | Ruta | Rep'g. MAG Energy Solutions, Inc. | Other Supplier |
| Skucas | Ruta | Rep'g. Monterey MA LLC | Other Supplier |
| Skucas | Ruta | Rep'g. Precept Power LLC | Other Supplier |
| Skucas | Ruta | Rep'g. Pure Energy, Inc. | Other Supplier |
| Skucas | Ruta | Rep'g. Red Wolf TX2, 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 |

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|-----------|---------|--|----------------------|
| Stern | Alex | Public Service Electric & Gas Company | Transmission Owner |
| Stewart | Travis | Rep'g. Eagle Point Power Generation, LLC | Generation Owner |
| Stewart | Travis | Rep'g. Energy Harbor 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 | Vineland Municipal Electric Utility | Electric Distributor |
| Wadsworth | Joe | Vitol Inc. | Generation Owner |
| 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 |

Non-Voting Attendees

| Last Name | First Name | Company Name | Sector |
|--------------|------------|---|----------------------|
| Adams | Sean | Public Service Electric & Gas Company | Transmission Owner |
| Anderson | Jared | Platts | Not Applicable |
| Bagot | Nancy | Electric Power Supply Association | Not Applicable |
| Baker | Laura | Stone, Mattheis, Xenopoulos & Brew, Pc | Not Applicable |
| Berton | Tyler | Appalachian Power Company | Transmission Owner |
| Bowring | Joe | Monitoring Analytics, LLC | Not Applicable |
| Brady | George | Ohio Valley Electric Corporation | Transmission Owner |
| Camp | Lewis | Duke Energy Business Services LLC | Transmission Owner |
| Carmean | Gregory | OPSI | Not Applicable |
| Christopher | Mahila | Public Utilities Commission Of Ohio | Not Applicable |
| Clark | Barrett | DC Energy, LLC | Other Supplier |
| Cocco | Michael | Old Dominion Electric Cooperative | Electric Distributor |
| Crystle | Gil | UGI Energy Sevices, LLC | Other Supplier |
| Dalessandris | Lou | Energy Harbor LLC | Generation Owner |
| Davies | Steve | Indiana Utility Regulatory Commission | Not Applicable |
| Delosa | Joe | New Jersey Board Of Public Utilities | Not Applicable |
| Dillon | Matt | UGI Energy Sevices, LLC | Other Supplier |
| Eaker | Katie | Tenaska Power Services Co. | Generation Owner |
| Elkins | Rachel | Energy Harbor LLC | Generation Owner |
| Erickson | Christina | Illinois Commerce Commission | Not Applicable |
| Filomena | Guy | Customized Energy Solutions, Ltd. | Not Applicable |
| Fink | Regan | Pine Gate Mid-Atlantic, LLC | Other Supplier |
| Fishback | Luke | Affirmed Energy LLC | Other Supplier |
| Fitch | Neal | Nrg Power Marketing, LLC | Generation Owner |
| Foster | Denise | East Kentucky Power Cooperative Inc. | Transmission Owner |
| Fuerst | Gary | Energy Harbor LLC | Generation Owner |
| Gates | Terry | Appalachian Power Company | Transmission Owner |
| Gebolys | Debbie | Public Utilities Commission Of Ohio | Not Applicable |
| Gilani | Rehan | Consolidated Edison Energy, Inc. | Other Supplier |
| Good | Megan | Pennsylvania Public Utilities Commission | Not Applicable |
| Gorman | Brad | FirstEnergy Corp | Not Applicable |
| Gorman | Kevin | The Highlands Energy Group, LLC | Other Supplier |
| Grau | Patrick | Apogee Energy Trading LLC | Other Supplier |
| Greiner | Gary | Public Service Electric & Gas Company | Transmission Owner |
| Guntle | Vince | American PowerNet Management, L.P. | End-Use Customer |
| Haas | Howard | Monitoring Analytics, LLC | Not Applicable |
| Hastings | David | DHASt Co. | Not Applicable |
| Heinle | Erik | Office of the People's Counsel for the District of Columbia | End-Use Customer |
| Heitmeyer | Chad | Appalachian Power Company | Transmission Owner |
| Herbert | Sebastian | DC Energy, LLC | Other Supplier |

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|------------|-----------|---|----------------------|
| Hicks | Dave | Perast Fund LP | Other Supplier |
| Holstein | Matt | Duke Energy Carolinas, LLC | Other Supplier |
| Homing | Lynn | Customized Energy Solutions, Ltd. | Not Applicable |
| Hull | Gerit | American Municipal Power, Inc. | Electric Distributor |
| Huntoon | Steve | Chesapeake Transmission, LLC | Other Supplier |
| Iler | Art | Indiana Office of Utility Consumer Counselor (IN OUCC) | End-Use Customer |
| Jett | William | Duke Energy Business Services LLC | Transmission Owner |
| Johnston | David | Indiana Utility Regulatory Commissio | Not Applicable |
| Kalle | Ibrahima | Tibiri Energy Group | Not Applicable |
| Khan | Bakhtawar | Gabel Associates | Not Applicable |
| Kilgallen | Kevin | Avangrid Renewables, LLC | Generation Owner |
| Klein | Abram | Appian Way Energy Partners MidAtlantic, LLC | Other Supplier |
| Kothakapu | Rakesh | Illinois Municipal Electric Agency | Electric Distributor |
| Laios | Takis | Appalachian Power Company | Transmission Owner |
| Lawson | Ryen | Dominion Energy Generation Marketing, Inc. | Generation Owner |
| Mariam | Yohannes | Office of the People's Counsel for the District of Columbia | End-Use Customer |
| Martin | Aaron | CMS Energy Resource Management Company | Other Supplier |
| Martin | Valerie | FERC | Not Applicable |
| Mcardle | Brian | NextEra Energy Resources, LLC | Not Applicable |
| Mcdowell | Christian | Pennsylvania Public Utility Commission | Not Applicable |
| Mcneil | Justin | Kentucky Public Service Commission | Not Applicable |
| Midgley | Sharon | Exelon Business Services Company, LLC | Transmission Owner |
| Miller | John | Commonwealth Edison Company | Transmission Owner |
| Mok | Alan | Duke Energy Business Services LLC | Transmission Owner |
| Nix | Emma | Gabel Associates | Not Applicable |
| Norton | Chris | American Municipal Power, Inc. | Electric Distributor |
| Olinger | Robert | Gen Ops, LLC | Other Supplier |
| Ondayko | Brock | Appalachian Power Company | Transmission Owner |
| Paff | Tom | Duke Energy Business Services LLC | Transmission Owner |
| Peoples | John | Duquesne Light Company | Transmission Owner |
| Phillips | Jennifer | Big Sandy Peaker Plant, LLC | Generation Owner |
| Price | Mark | DC Energy, LLC | Other Supplier |
| Price | Ruth | Delaware Divison Of The Public Advocate | End-Use Customer |
| Procuriar | Jason | Buckeye Power, Inc. | Electric Distributor |
| Pulin | Shah | Exelon Business Services Company, LLC | Transmission Owner |
| Rahimi | Farrokh | Open Access Technology International, Inc. | Not Applicable |
| Rainey | Frank | PEI Power LLC | Generation Owner |
| Ramsey | James | Perast Fund LP | Other Supplier |
| Redwine | Arlo | FERC | Not Applicable |
| Roberts | Jackie | West Virginia Consumer Advocate Division | End-Use Customer |
| Robinson | Becky | Vistra Corporation | Not Applicable |
| Robson | Matt | SESCO Enterprises, LLC | Other Supplier |
| Rodriguez | Tomas | OPSI | Not Applicable |
| Rumsey | Amanda | PPL Electric Utilities Corporation d/b/a PPL Utilities | Transmission Owner |
| Rutigliano | Tom | NRDC | Not Applicable |
| Sasser | Jonathan | Customized Energy Solutions, Ltd. | Not Applicable |
| Segner | Sharon | LS Power | Not Applicable |
| Shanker | Roy | H.Q. Energy Services (U.S.), Inc. | Other Supplier |
| Sillin | John | FERC | Not Applicable |
| Skumanich | William | RTR Energy Solutions, LLC | Not Applicable |
| Smith | Rob | National Grid Renewables, LLC | Not Applicable |
| Solomon | Greg | NextEra Energy Marketing, LLC | Other Supplier |
| Sotkiewicz | Paul | E-Cubed Policy Associates | Not Applicable |
| Squibb | Bill | Ohio Valley Electric Corporation | Transmission Owner |
| Stanley | Chuck | ION Group | Not Applicable |
| Steele | Robert | Hyllgarth Energy | Not Applicable |
| Stone | Andy | Gabel Associates | Not Applicable |
| Stuchell | Jeff | Energy Harbor LLC | Generation Owner |
| Sturgeon | John | Duke Energy Business Services LLC | Transmission Owner |
| Svenson | Heather | Public Service Electric & Gas Company | Transmission Owner |
| Sweeney | Rory | GT Power Group, LLC | Not Applicable |
| Taylor | Robert | Exelon Business Services Company, LLC | Transmission Owner |

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| Theodore | Sharon | Electric Power Supply Association | Not Applicable |
| Thomas | Amber | Exelon Business Services Company, LLC | Transmission Owner |
| Thomas | Sharon | Energy Storage Association | Not Applicable |
| Tibbetts | Maeve | K&L Gates | Not Applicable |
| Tynes | Lisa | Energy Harbor LLC | Generation Owner |
| Vanderlaan | Bill | Illinois Commerce Commission | Not Applicable |
| Wehnes | Kathleen | Maryland Department Of The Environment | Not Applicable |
| Weigel | Shannon | Edison Energy | Not Applicable |
| Wisersky | Megan | Madison Gas & Electric | Not Applicable |
| Yeoman | Ryan | Michigan Public Service Commission | Not Applicable |
| Yoder | Michael | RTO Insider | Not Applicable |
| Zemanek | Kevin | Buckeye Power, Inc. | Electric Distributor |
| Zuretti | Bill | Electric Supply Association | Not Applicable |

PJM Attendees

| Last Name | First Name | Company Name | Sector |
|-------------|------------|--------------------------|----------------|
| Anders | Dave | PJM Interconnection, LLC | Not Applicable |
| Asthana | Manu | PJM Interconnection, LLC | Not Applicable |
| Baizman | Aaron | PJM Interconnection, LLC | Not Applicable |
| Baker | Scott | PJM Interconnection, LLC | Not Applicable |
| Bastian | Jeff | PJM Interconnection, LLC | Not Applicable |
| Berner | Aaron | PJM Interconnection, LLC | Not Applicable |
| Blackwell | Terry | PJM Interconnection, LLC | Not Applicable |
| Bloczynski | Nigeria | PJM Interconnection, LLC | Not Applicable |
| Boyle | Glen | 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 |
| Carroll | Rebecca | PJM Interconnection, LLC | Not Applicable |
| Chmielewski | Brian | PJM Interconnection, LLC | Not Applicable |
| Connell | Jason | PJM Interconnection, LLC | Not Applicable |
| Croop | Danielle | PJM Interconnection, LLC | Not Applicable |
| D'Antonio | Phil | PJM Interconnection, LLC | Not Applicable |
| Dent | Duane | PJM Interconnection, LLC | Not Applicable |
| Devita | Thomas | PJM Interconnection, LLC | Not Applicable |
| Disciullo | Nick | PJM Interconnection, LLC | Not Applicable |
| Drauschak | Lisa | PJM Interconnection, LLC | Not Applicable |
| Egan | Amanda | PJM Interconnection, LLC | Not Applicable |
| Endress | Eric | PJM Interconnection, LLC | Not Applicable |
| Esterly | Theresa | PJM Interconnection, LLC | Not Applicable |
| Eydeland | Alexander | PJM Interconnection, LLC | Not Applicable |
| Fabiano | Janell | PJM Interconnection, LLC | Not Applicable |
| Falin | Thomas | PJM Interconnection, LLC | Not Applicable |
| Farhat | Michelle | PJM Interconnection, LLC | Not Applicable |
| Fereshetian | Damon | PJM Interconnection, LLC | Not Applicable |
| Fioresi | Mark | PJM Interconnection, LLC | Not Applicable |
| Fitzpatrick | Brian | PJM Interconnection, LLC | Not Applicable |
| Flynn | Paul | PJM Interconnection, LLC | Not Applicable |
| Foley | Sheila | PJM Interconnection, LLC | Not Applicable |
| Frogg | Darrell | PJM Interconnection, LLC | Not Applicable |
| Glazer | Craig | PJM Interconnection, LLC | Not Applicable |
| Gluck | Jim | PJM Interconnection, LLC | Not Applicable |
| Graf | Walter | PJM Interconnection, LLC | Not Applicable |
| Greening | Michele | PJM Interconnection, LLC | Not Applicable |
| Guistwhite | Jeff | PJM Interconnection, LLC | Not Applicable |
| Guygnet | Douglas | PJM Interconnection, LLC | Not Applicable |
| Haque | Asim | PJM Interconnection, LLC | Not Applicable |
| Hauske | Thomas | PJM Interconnection, LLC | Not Applicable |
| Hawque | Asim | PJM Interconnection, LLC | Not Applicable |
| Heater | Megan | PJM Interconnection, LLC | Not Applicable |
| Here! | Suzanne | PJM Interconnection, LLC | Not Applicable |

| | | | |
|---------------|-----------|--------------------------|----------------|
| Herman | Michael | PJM Interconnection, LLC | Not Applicable |
| Hickey | Michael | PJM Interconnection, LLC | Not Applicable |
| Hicks | Colleen | PJM Interconnection, LLC | Not Applicable |
| Horger | Timothy | PJM Interconnection, LLC | Not Applicable |
| Hough | Dennis | PJM Interconnection, LLC | Not Applicable |
| Hsia | Eric | PJM Interconnection, LLC | Not Applicable |
| Johnson | Jeanine | PJM Interconnection, LLC | Not Applicable |
| Kashem | Sharmin | PJM Interconnection, LLC | Not Applicable |
| Kazerooni | Hamid | PJM Interconnection, LLC | Not Applicable |
| Keech | Adam | PJM Interconnection, LLC | Not Applicable |
| Kelly | Gwen | PJM Interconnection, LLC | Not Applicable |
| Kenney | Susan | PJM Interconnection, LLC | Not Applicable |
| Lai | Erin | PJM Interconnection, LLC | Not Applicable |
| Lauterbach | Victoria | PJM Interconnection, LLC | Not Applicable |
| Levitt | Andrew | PJM Interconnection, LLC | Not Applicable |
| Lockwood | Dan | PJM Interconnection, LLC | Not Applicable |
| Lu | Chen | PJM Interconnection, LLC | Not Applicable |
| Mccomb | John | PJM Interconnection, LLC | Not Applicable |
| Mcelwaine | Kathy | PJM Interconnection, LLC | Not Applicable |
| Mcelwee | Steve | PJM Interconnection, LLC | Not Applicable |
| Mcglynn | Paul | PJM Interconnection, LLC | Not Applicable |
| McLavery | Megan | PJM Interconnection, LLC | Not Applicable |
| Muhl | Nancy | PJM Interconnection, LLC | Not Applicable |
| Murphy Lee | Lori | PJM Interconnection, LLC | Not Applicable |
| O'Brien | Tom | PJM Interconnection, LLC | Not Applicable |
| O'Hara | Chris | PJM Interconnection, LLC | Not Applicable |
| Olaleye | Michael | PJM Interconnection, LLC | Not Applicable |
| Pacella | Chris | PJM Interconnection, LLC | Not Applicable |
| Patel | Anita | PJM Interconnection, LLC | Not Applicable |
| Pilong | Chris | PJM Interconnection, LLC | Not Applicable |
| Pilong | Melissa | PJM Interconnection, LLC | Not Applicable |
| Pincus | Steven | PJM Interconnection, LLC | Not Applicable |
| Robinson | Evelyn | PJM Interconnection, LLC | Not Applicable |
| Rocha | Patricio | PJM Interconnection, LLC | Not Applicable |
| Salmon | Lisa | PJM Interconnection, LLC | Not Applicable |
| Schweizer | David | PJM Interconnection, LLC | Not Applicable |
| Seiler | Ken | PJM Interconnection, LLC | Not Applicable |
| Shields | Jeff | PJM Interconnection, LLC | Not Applicable |
| Snow | Jim | PJM Interconnection, LLC | Not Applicable |
| Souder | Dave | PJM Interconnection, LLC | Not Applicable |
| Souder | Michelle | PJM Interconnection, LLC | Not Applicable |
| Stadelmeyer | Rebecca | PJM Interconnection, LLC | Not Applicable |
| Starkov | Stefan | PJM Interconnection, LLC | Not Applicable |
| Stemetzki | Mike | PJM Interconnection, LLC | Not Applicable |
| Steven | Pincus | PJM Interconnection, LLC | Not Applicable |
| Stotesbury | Christina | PJM Interconnection, LLC | Not Applicable |
| Strella Wahba | Lauren | PJM Interconnection, LLC | Not Applicable |
| Tacka | Natalie | PJM Interconnection, LLC | Not Applicable |
| Tribulski | Jennifer | PJM Interconnection, LLC | Not Applicable |
| Troiano | Jessica | PJM Interconnection, LLC | Not Applicable |
| Watkin | Erik | PJM Interconnection, LLC | Not Applicable |
| Waweru | James | PJM Interconnection, LLC | Not Applicable |
| Wright | Dionne | PJM Interconnection, LLC | Not Applicable |
| Wynder | Michael | PJM Interconnection, LLC | Not Applicable |