

Planning Committee
PJM Conference and Training Center, Audubon, PA
February 11, 2016

Administration

1. Mr. Steve Herling called the meeting to order and asked if the Planning Committee had any additional items for the agenda. There were no suggestions for additional agenda items.
2. Mr. Herling asked Ms. Bridgid Cummings to review the meeting minutes of the January 7, 2016 Planning Committee meeting. Mr. Herling asked the Planning Committee to approve the minutes. Mr. John Kopinski made a motion to approve the minutes. Mr. David Pratzon seconded the motion. In a voice vote, the Planning Committee approved the January 7th Planning Committee Minutes.

Informational Updates

3. NERC/RRO Update

Mr. Bill Temple provided an update to the Planning Committee on recent NERC activities and PJM compliance activities. The Periodic Review Team voted to retire BAL-005-1 once BAL-006-2 becomes effective and to add sub-requirements to requirements of FAC-001-2. Comments and ballots for on-going standard reviews can be found under the January 7th Planning Committee Material. NERC Standards subject to future enforcement can be found under the January 7th Planning Committee Material at the [Planning Committee Website](#).

4. RTEP Proposal Window Update

Mr. Michael Herman presented an update on the RTEP Proposal Window implementation and communication enhancements. Resources regarding contact information, 2016 RTEP Proposal registration, and Axway registration materials can be found under the January 7th Planning Committee Material at the [Planning Committee Website](#). The files for the 2016 RTEP Proposal Window are preliminary at this time. The proposal windows 2 and 3 will be similar in scope and timeline as those for 2014 and 2015.

5. Order 1000 Lessons Learned

Mr. Frank Koza discussed plans for restarting the Special PC Session, Order 1000 Lessons Learned meetings. The first meeting will be held on February 23, 2016 from 1pm to 3pm at PJM. The initial focus will be to discuss adding transparency to the RTEP proposal process.

6. Sunset Phase Angle Regulator TF and Long Term Firm Transmission Service TF

Mr. Aaron Berner discussed the work of the Phase Angle Regulator Task Force and the Long Term Firm Transmission Service Task Force. Mr. Berner discussed that these groups had accomplished their goals. The two task forces were approved to be sunset. Updates to PJM Manual 14E,

identified as separate from the PARTF requirements, are still being conducted but will be brought to the Planning Committee within the next few meetings.

7. MOD 32 GEN Portal Review

Mr. Jonathan Thompson provided a review of MOD-032-1 and the MOD-032 Gen Portal developed to support compliance. The effective date of MOD-032-1 Requirement 2 is July 1, 2016. The pilot is currently available for use for generation owners looking to gain experience and provide feedback. Any Independent Power Providers are also encouraged to participate in the pilot. Please contact MOD-032@pjm.com with questions and feedback. The Gen Model will open for MOD-032 business for 2016 submissions on May 1, 2016 and will close on July 31, 2016. Sample screen shots of the Gen Portal can be found under the January 7th Planning Committee Material at the [Planning Committee Website](#).

8. CIP 002 and CIP 014 Process

Mr. Tom Kay, Commonwealth Edison Company, facilitated a discussion of the PJM Assessment Process and Process Timeline related to CIP-002 and CIP-014. PJM staff will develop material to present at the next PC Meeting to continue the discussion.

9. RAAS Update

Mr. Tom Falin provided an update on RAAS Activities. The RAAS discussed the impact of modeling DR in RRS, the load model selection, and world modeling (Capacity Benefit of Ties). The next RAAS meeting will be held on February 23, 2016 to continue to discuss the study assumptions with the intent to bring a recommendation to the PC in April or May. [RAAS website](#)

10. Capacity Performance Update

Mr. Falin facilitated a discussion of CIR determinations and Capacity Factors of Intermittent Resources. The current rules for Capacity Injection Rights, Summer Capacity Verification Tests were discussed. Potential updates to the wind and solar class average reporting and calculation were discussed, items were presented to show differences in determining wind and solar capacity factors based on the median values as opposed to the average values. The handling of UCAP determinations for Run of River Hydro and Landfill Gas units under the Capacity Performance construct was also discussed. PJM staff will conduct further analysis to present at the next PC meeting to continue the discussion of UCAP and CIR Determinations of Intermittent Resources.

11. Local Planning Update

Mr. Paul McGlynn provided an update on Local Planning. An overview of prior discussions of Local Planning in relation to FERC Order 1000, FERC Docket ER15-1344, and Subregional RTEP Committee meetings was provided. Mr. McGlynn noted a draft problem statement was reviewed at the January 28, 2016 MRC Meeting regarding developing PJM Criteria/Guidelines for Assessing End of Life Transmission Facilities.

12. MISO Queue Reform

Mr. Berner presented an update on the MISO Queue Reform. As part of the reform, MISO is splitting their process into 3 phases, as opposed to 2 phases. The proposed queue reform does not align with PJM's calendar for studies and provisions in the process to delay final phase studies for certain conditions may cause schedule shifts. Members are encouraged to attend the MISO/PJM JCM stakeholder meeting on February 18, 2016.

Informational Section

Model On Demand Update

Review of Model on Demand data submittals by TOs is well under way. Upon completion of the data submittals, preliminary cases for the 2016 series of MMWG cases will be put together for base case years 1, 2, 5, and 10 and TOs will be asked to review these cases. The anticipated timeframe for the model builds is the second week in February. For questions or comments, please email MOD@PJM.com

Subcommittee/Task Force Updates

Earlier Queue Submittal Task Force (EQSTF)

At the 1/19 meeting of the EQSTF, PJM provided results from its recent poll which asked stakeholders to indicate their preference for various options for the established design components. The group then moved into package development. At the 2/26 meeting, PJM will present additional education on package implications and present draft Tariff language for discussion. EQSTF website. [EQSTF website](#)

Designated Entity Design Standards Task Force (DEDSTF)

At the 1/21/2016 meeting of the DEDSTF PJM led a discussion about the future organizational direction of the task force. PJM outlined options as had been previously discussed by the group, and worked with members to structure a poll seeking information regarding members thoughts on the organizational direction of the group. The poll opened on 1/25/2016 and will be open through 2/5/2016. The next meeting of the DEDSTF is 2/23/2016, at which PJM will share the results of the poll.

[DEDSTF website](#)

Future Meeting Dates

| | | |
|--------------------|-----------|---|
| March 10, 2016 | 9:30 a.m. | PJM Conference and Training Center, Audubon, PA |
| April 7, 2016 | 9:30 a.m. | PJM Conference and Training Center, Audubon, PA |
| May 12, 2016 | 9:30 a.m. | PJM Conference and Training Center, Audubon, PA |
| June 9, 2016 | 9:30 a.m. | PJM Conference and Training Center, Audubon, PA |
| July 14, 2016 | 9:30 a.m. | PJM Conference and Training Center, Audubon, PA |
| August 11, 2016 | 9:30 a.m. | PJM Conference and Training Center, Audubon, PA |
| September 15, 2016 | 9:30 a.m. | PJM Conference and Training Center, Audubon, PA |
| October 6, 2016 | 9:30 a.m. | PJM Conference and Training Center, Audubon, PA |
| November 3, 2016 | 9:30 a.m. | PJM Conference and Training Center, Audubon, PA |
| December 15, 2016 | 9:30 a.m. | PJM Conference and Training Center, Audubon, PA |

Author: Bridgid Cummings

Attendees

| Attendees | Company | Sector |
|------------------------------|---|----------------------|
| Steve Herling (Chair) | PJM Interconnection, LLC | Not Applicable |
| Bridgid Cummings (Secretary) | PJM Interconnection, LLC | Not Applicable |
| Thomas Rutigliano | Achieving Equilibrium | Not Applicable |
| Nicolas Koehler | AEP Indiana-Michigan Transmission Company, Inc. | Transmission Owner |
| Jerod Marker | AEP Indiana-Michigan Transmission Company, Inc. | Transmission Owner |
| Rebecca Schwarz | AEP Ohio Transmission Company, Inc. | Transmission Owner |
| Sean Black | Ameren Corporation | Not Applicable |
| Toby Hu | Ameren Corporation | Not Applicable |
| Kiran Thammineni | Ameren Corporation | Not Applicable |
| Lisa McAlister | American Municipal Power, Inc. | Electric Distributor |
| Chris Norton | American Municipal Power, Inc. | Electric Distributor |
| Edward Tatum | American Municipal Power, Inc. | Electric Distributor |
| Dale Burmester | American Transmission Company, LLC | Not Applicable |
| Chris Hagman | American Transmission Company, LLC | Not Applicable |
| Gary Fuerst | American Transmission Systems, Inc. | Transmission Owner |
| Jim Zweig | American Transmission Systems, Inc. | Transmission Owner |
| Brock Ondayko | Appalachian Power Company | Transmission Owner |
| Kevin Patten | Appalachian Power Company | Transmission Owner |
| Takis Laios | Appalachian Power Company | Transmission Owner |
| Craig Lockwood | Appalachian Power Company | Transmission Owner |
| David Bloom | Baltimore Gas and Electric Company | Transmission Owner |
| Hugh Scott | Baltimore Gas and Electric Company | Transmission Owner |
| Ron Pezon | Borough of Chambersburg | Electric Distributor |
| Travis Bouslog | Burns McDonnell | Not Applicable |
| David Scarpignato | Calpine Energy Services, L.P. | Generation Owner |
| Tom Hoatson | Carroll County Energy LLC | Other Supplier |
| Michael Natrin | Carroll County Energy LLC | Other Supplier |
| Barry Trayers | Citigroup Energy, Inc. | Other Supplier |
| Connie Davis | City of Cleveland, DPU, Div of Cleveland Public Pwr | Electric Distributor |
| William Allen | Commonwealth Edison Company | Transmission Owner |
| Thomas Kay | Commonwealth Edison Company | Transmission Owner |
| Thomas Leeming | Commonwealth Edison Company | Transmission Owner |
| Paul Mills | Commonwealth Edison Company | Transmission Owner |
| Ronald Regner | Commonwealth Edison Company | Transmission Owner |
| Jason Barker | Constellation NewEnergy, Inc | Transmission Owner |
| Dan Griffiths | Consumer Advocates of PJM States | Not Applicable |

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| Jamie Lejcar | CPS Energy | Electric Distributor |
| Guy Filomena | Customized Energy Solutions, Ltd.* | Not Applicable |
| Carl Johnson | Customized Energy Solutions, Ltd.* | Not Applicable |
| Jonathan Sasser | Customized Energy Solutions, Ltd.* | Not Applicable |
| John Horstmann | Dayton Power & Light Company (The) | Transmission Owner |
| Mike Hurd | Dayton Power & Light Company (The) | Transmission Owner |
| Joseph DeLosa | DE Public Service Commission | Not Applicable |
| John Farber | DE Public Service Commission | Not Applicable |
| Jaclyn Cantler | Delmarva Power & Light Company | Electric Distributor |
| David Hastings | Dhast Co | Not Applicable |
| Janhavi Dharmadhikari | Dominion Energy Marketing, Inc. | Generation Owner |
| Ronnie Bailey | Dominion Virginia Power | Transmission Owner |
| Craig Crider | Dominion Virginia Power | Transmission Owner |
| Kyle Hannah | Dominion Virginia Power | Transmission Owner |
| Linda Haskins | Dominion Virginia Power | Transmission Owner |
| Bao Pham | Dominion Virginia Power | Transmission Owner |
| Frank Zhang | Dominion Virginia Power | Transmission Owner |
| George Owens | Downes Associates, Inc. | Other Supplier |
| Greg Pakela | DTE Energy Trading, Inc. | Other Supplier |
| Steve Steinkuhl | Duke Energy Business Services LLC | Transmission Owner |
| Judy Stubbe | Duke Energy Ohio, Inc. | Transmission Owner |
| Chad Hirsh | Duquesne Light Company | Transmission Owner |
| Iker Chocarro | E.on Climate & Renewables North America, Inc | Generation Owner |
| Chris Adams | East Kentucky Power Cooperative, Inc. | Transmission Owner |
| Darrin Adams | East Kentucky Power Cooperative, Inc. | Transmission Owner |
| Nathan Bradley | East Kentucky Power Cooperative, Inc. | Transmission Owner |
| Chuck Dugan | East Kentucky Power Cooperative, Inc. | Transmission Owner |
| Wes Fluty | East Kentucky Power Cooperative, Inc. | Transmission Owner |
| Karen Onaran | Edison Electric Institute | Not Applicable |
| Justin Campbell | Edison Transmission, LLC | Other Supplier |
| Kevin Kilgallen | Emerald Energy Consulting, LLC | Not Applicable |
| Bruce Campbell | EnergyConnect, Inc. | Other Supplier |
| Andrew Tan | Eversource | Not Applicable |
| Jason Barker | Exelon Business Services Company, LLC | Transmission Owner |
| Melanie Sanders | Exelon Business Services Company, LLC | Transmission Owner |
| Sharon Midgley | Exelon Generation Co., LLC | Generation Owner |
| Shadrack Orero | Exelon Generation Co., LLC | Generation Owner |
| Roozbeh Shegarfi | Exelon Generation Co., LLC | Generation Owner |
| Nicole Buell | Federal Energy Regulatory Commission (The) | Not Applicable |
| Alina Halay | Federal Energy Regulatory Commission (The) | Not Applicable |

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| Thomas Bainbridge | FirstEnergy Solutions Corp. | Transmission Owner |
| Jim Benchek | FirstEnergy Solutions Corp. | Transmission Owner |
| Martin Bolan | FirstEnergy Solutions Corp. | Transmission Owner |
| Lou D'Alessandris | FirstEnergy Solutions Corp. | Transmission Owner |
| David Marton | FirstEnergy Solutions Corp. | Transmission Owner |
| Jon Schneider | FirstEnergy Solutions Corp. | Transmission Owner |
| Jeff Stuchell | FirstEnergy Solutions Corp. | Transmission Owner |
| John Syner | FirstEnergy Solutions Corp. | Transmission Owner |
| Trent Carlson | Gridliance, GP, LLC | Not Applicable |
| Jody Holland | Gridliance, GP, LLC | Not Applicable |
| Rachel Hulett | Gridliance, GP, LLC | Not Applicable |
| Norman Williams | Gridliance, GP, LLC | Not Applicable |
| Derek Hagaman | GT Power Group | Not Applicable |
| David Pratzon | GT Power Group | Not Applicable |
| Tom Shields | Iberdrola Renewables, LLC | Generation Owner |
| Kenneth Foadare | IMG Midstream LLC | Generation Owner |
| Kaustubh Deshmukh | ITC Holdings | Not Applicable |
| John Kopinski | ITC Mid-Atlantic Development LLC | Other Supplier |
| Brenda Prokop | ITC Mid-Atlantic Development LLC | Other Supplier |
| Sandeep Baidwan | LS Power Transmission, LLC | Transmission Owner |
| Robert O'Connell | Main Line Electricity Market Consultants | Not Applicable |
| Heather Thomson | Marec | Not Applicable |
| David Mabry | McNees Wallace & Nurick LLC | Not Applicable |
| Erik Hanser | Michigan Public Service Commission | Not Applicable |
| Adam Solomon | Midwest Independent Transmission System Operator, Inc. | Not Applicable |
| Christin Domian | Mitsubishi Electric Power Products Inc. | Not Applicable |
| Arah Nezam Sarmadi | New England Power Company | Not Applicable |
| George Kogut | New York Power Authority | Other Supplier |
| David Davis | NextEra Energy Power Marketing, LLC | Generation Owner |
| Frederico Von Pinho | NextEra Energy Transmission, LLC | Other Supplier |
| James Manning | North Carolina Electric Membership Corporation | Electric Distributor |
| Miles Taylor | Northern Indiana Public Service Company | Other Supplier |
| Neal Fitch | NRG Power Marketing LLC | Generation Owner |
| Yohannes Mariam | Office of the Peoples Counsel for the D.C. | End User Customer |
| John Donelson | Old Dominion Electric Cooperative | Electric Distributor |
| John Gouda | Old Dominion Electric Cooperative | Electric Distributor |
| Steven Lieberman | Old Dominion Electric Cooperative | Electric Distributor |
| Gregory Carmean | OPSI | Not Applicable |
| Mike Donnelly | PECO Energy Company | Transmission Owner |
| Dhruv Acharya | PEPCO Holdings, Inc. | Transmission Owner |



Draft Minutes

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|------------------------|--|--------------------|
| Gloria Godson | PEPCO Holdings, Inc. | Transmission Owner |
| Dave Anders | PJM Interconnection, LLC | Not Applicable |
| Jerry Bell | PJM Interconnection, LLC | Not Applicable |
| Aaron Berner | PJM Interconnection, LLC | Not Applicable |
| Janell Fabiano | PJM Interconnection, LLC | Not Applicable |
| Tom Falin | PJM Interconnection, LLC | Not Applicable |
| Pauline Foley | PJM Interconnection, LLC | Not Applicable |
| Suzanne Glatz | PJM Interconnection, LLC | Not Applicable |
| Andrew Gledhill | PJM Interconnection, LLC | Not Applicable |
| Jim Glennon | PJM Interconnection, LLC | Not Applicable |
| Michael Herman | PJM Interconnection, LLC | Not Applicable |
| Bradley Hofferkamp | PJM Interconnection, LLC | Not Applicable |
| Frank Koza Jr. | PJM Interconnection, LLC | Not Applicable |
| Chuck Liebold | PJM Interconnection, LLC | Not Applicable |
| Erich Mauroschadt | PJM Interconnection, LLC | Not Applicable |
| Melissa Maxwell | PJM Interconnection, LLC | Not Applicable |
| Susan McGill | PJM Interconnection, LLC | Not Applicable |
| Paul McGlynn | PJM Interconnection, LLC | Not Applicable |
| Raul Perez | PJM Interconnection, LLC | Not Applicable |
| Dave Pomian | PJM Interconnection, LLC | Not Applicable |
| Jason Quevada | PJM Interconnection, LLC | Not Applicable |
| John Reynolds | PJM Interconnection, LLC | Not Applicable |
| Patricio Rocha Garrido | PJM Interconnection, LLC | Not Applicable |
| Ken Seiler | PJM Interconnection, LLC | Not Applicable |
| Mark Sims | PJM Interconnection, LLC | Not Applicable |
| William Temple | PJM Interconnection, LLC | Not Applicable |
| Amber Thomas | PJM Interconnection, LLC | Not Applicable |
| Mike Ward | PJM Interconnection, LLC | Not Applicable |
| Glenn Weiss | PJM Interconnection, LLC | Not Applicable |
| Scott Gass | PowerGEM | Not Applicable |
| David Gladey | PPL Electric Utilities Corp. dba PPL Utilities | Transmission Owner |
| Frank Richardson | PPL Electric Utilities Corp. dba PPL Utilities | Transmission Owner |
| Gary Greiner | PSEG Energy Resources and Trade LLC | Other Supplier |
| Mohamed Zahidi | PSEG Energy Resources and Trade LLC | Transmission Owner |
| Vilna Gastong | Public Service Electric & Gas | Transmission Owner |
| James Caristia | Public Service Electric & Gas Company | Transmission Owner |
| Kathleen Crowley | Public Service Electric & Gas Company | Transmission Owner |
| Elizabeth Gostkowski | Public Service Electric & Gas Company | Transmission Owner |
| Daniel Hutt | Public Service Electric & Gas Company | Transmission Owner |
| Esam Khadr | Public Service Electric & Gas Company | Transmission Owner |

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| Leonid Lyakhovich | Public Service Electric & Gas Company | Transmission Owner |
| Rich Marinelli | Public Service Electric & Gas Company | Transmission Owner |
| Jerry Martinez | Public Service Electric & Gas Company | Transmission Owner |
| MD Sakib | Public Service Electric & Gas Company | Transmission Owner |
| Massamba Samb | Public Service Electric & Gas Company | Transmission Owner |
| Glenn Catenacci | Public Service Electric and Gas | Transmission Owner |
| Debbie Gebolys | Public Utilities Commission of Ohio (The) | Not Applicable |
| Roleto Mangonon | Rockland Electric Company | Transmission Owner |
| Suzanne Herel | RTO Insider | Not Applicable |
| Andy Peebles | Shell Energy North America (US), LP | Other Supplier |
| Carla Engalla | Smart Wires | Not Applicable |
| Todd Ryan | Smart Wires | Not Applicable |
| Jack Halpern | Stantec | Not Applicable |
| Becky Davis | Talen Energy Marketing, LLC | Generation Owner |
| Michele Greening | Talen Energy Marketing, LLC | Generation Owner |
| Barbara Scoglietti | Tangent Energy Solutions, Inc. | Other Supplier |
| Boone Staples | Tenaska Power Services Co | Generation Owner |
| Pati Esposito-Hils | TransCanada Power Marketing Ltd. | Other Supplier |
| Chandana Bommareddy | TRC Solutions | Not Applicable |
| Eric Sorber | UGI Utilities, Inc. | Transmission Owner |
| Pat Hayes | Union Electric Company d/b/a Ameren Missouri | Other Supplier |
| Adam Weber | Union Electric Company d/b/a Ameren Missouri | Other Supplier |
| David Essah | Virginia State Corporation Commission | Not Applicable |
| Steve Chafin | Virginia Electric & Power Company | Transmission Owner |
| James Wilson | Wilson Energy Economics | Not Applicable |
| Mike Jacobs | Xtreme Power | Not Applicable |