



Planning Committee
PJM Conference and Training Center, Audubon, PA
April 13, 2017

Administration

- Mr. Steve Herling, PJM, called the meeting to order and reviewed the Code of Conduct and Anti-Trust.
- 2. Mr. Herling asked Ms. Bridgid Cummings to review the meeting minutes of the March 9, 2017 Planning Committee meeting. Mr. Herling asked the Planning Committee to approve the minutes. Mr. Carl Johnson made a motion to approve the minutes. Mr. Barry Trayers seconded the motion. In a voice vote, the Planning Committee approved the March 9, 2017 Planning Committee Minutes.

Endorsements

3. PJM Manual 14B Updates

Mr. Michael Herman, PJM, presented red-line changes to Manual 14B (PJM Region Transmission Planning Process) related to Baseline Thermal Analysis, PRC-023 requirements and references to SPS (Special Protection System) changed to RAS (Remedial Action Scheme). Red-line changes regarding the handling of energy efficiency were also presented; this change is being made to reflect current practices given approval of the energy and saturation variables in the long term load forecast (11/2015). Mr. Ronnie Bailey made a motion to endorse and Mr. Barry Trayers seconded the motion, there were no objections and no abstentions. In a voice vote, the Planning Committee endorsed the updates to Manual 14B.

First Readings

4. PJM Manual 14F

Mr. Herman, PJM, reviewed the proposed draft of Manual 14F: PJM Competitive Planning Process Manual. This is a new manual and members are strongly encouraged to provide feedback prior to the April MRC meeting. Please provide feedback to Michael.Herman@pjm.com. This will be brought to the next Planning Committee meeting for endorsement, absent any significant requested changes to the draft Manual 14F.

5. Designated Entity Design Standards Task Force

Mr. Herman, PJM, presented a summary of the compilation of the documents written as part of the efforts of the Designated Entity Design Standards Task Force. These DEDSTF requirements must be followed for all proposals that require the signing of a Designated Entity Agreement. These documents will be brought to the next Planning Committee meeting for endorsement.

6. Manual 14A and Tariff Updates

Mr. Aaron Berner, PJM, presented updates to Manual 14A: Generation and Transmission Interconnection Process and the Tariff related to less than \$5 million cost allocation and the

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alternate queue. The proposed language will seek to remove alternate queue screening. It also has proposed language to evaluate the need for reinforcements with first request to cause the need for a reinforcement to be allocated 100% of the cost of the upgrade. These revisions will be brought to the next Planning Committee meeting for endorsement.

Informational Updates

7. Transmission Service and Upgrade Requests

Mr. Berner, PJM, provided an update on the status of manual and/or tariff language pertaining to Transmission Service and Upgrade Requests. The group will continue to meet in future Special PC Sessions to discuss changes to Part II and III for Transmission Service Study changes.

8. Transitional Seasonal Capacity Study

Mr. Berner, PJM, provided an update on the study conducted for transitional seasonal capacity. Updates will continue to be provided as they become available.

9. EQSTF Tariff Clean Up

Mr. Dave Egan, PJM, provided an update on administrative changes to the PJM Tariff to reflect the correct language intended by the EQSTF. The impacted language is related to System Impact Study Costs for 2 MW generation and 20 MW generation.

10. Upgrade Construction Service Agreement Definitions Change

Mr. Egan, PJM, provided a summary of changes to definitions in Attachment GG of the PJM Tariff. These changes are also being presented at the Governing Document Enhancement & Clarification Subcommittee on May 10, 2017.

11. CETLs for NY Imports

Mr. Mark Sims, PJM, provided a summary regarding CETL methodology directly related to the PJM/NYISO interface. Updated CETLs for the Capacity Market was posted April 14th.

12. TEAC Redesign Update

Mr. Sims provided an update on the TEAC Redesign effort and reviewed the proposed 12 month and 18 month RTEP cycle structure and timing. This item will be brought back to the Planning Committee to further discuss potential Manual changes and additional preparations.

13. Planning Community Tool

Ms. Lauren Strella, PJM, presented an update on the status of the Planning Community Tool. Members are encouraged to attend the live demo of the Tech Change Community Tool on April 25th, this tool will be very similar to the Planning Community Tool. The Planning Community Tool will be rolled out in Q3 of 2017.





14. Multiregional Modeling Working Group and MOD-032 Update

Mr. Jason Connell, PJM, provided an update on the Gen Model, Short Circuit MOD-032 Request, and the MMWG case build due dates. There is much activity in the next two months, please refer to the presentation material available on the PC Website under Item 14 in the April 13th meeting materials.

15. TO Load Development and Modeling

Mr. Alex Worcester, PJM, provided an overview of TO Load Forecasting methodologies provided from different perspectives. He noted that this presentation was to provide a general summary and not intended to reflect any specific process of any given Transmission Owner.

16. NERC/RRO Update

Mr. Preston Walker, PJM, provided an update on recent NERC activities and PJM compliance activities. NERC standards subject to future enforcement can be found under the March 9th Planning Committee Material at the <u>PC Website</u>. You can also reach out to Preston at <u>Preston.Walker@pjm.com</u> if there are any further questions.

17. PPL Planning Criteria

Mr. Chip Richardson, PPL, provided a review of modifications to the PPL Planning Criteria.

18. ITCI Planning Criteria

Mr. John Kopinski, ITCI, provided an overview of ITCI as well as provided a summary of the ITCI Planning Criteria. Additional details are available on the PC Website under Item 18 in the April 13th meeting materials.

19. BGE Remedial Action Scheme Retirement

Mr. Eric Yeh, BGE, provided the history of the Concord St RAS as well as a review of reasons for removing the Concord St RAS.

20. Automatic Sectionalizing Schemes

Mr. Lagy Mathew, PJM, provided an update regarding Automatic Sectionalizing Schemes and the criteria on which they are assessed. His presentation provided a list of Schemes in the Dominion zone that will be added to Attachment E in M03: Transmission Operations with an effective date of July 27, 2017. Please reference the presentation on the PC Website under Item 20 in the April 13th meeting materials for the complete list.

21. OATT and Manual 14D Updates

Mr. Joe Mulhern, PJM, presented PJM Tariff and Manual 14D: Generator Operational Requirements changes specific to new data requirements for Solar Parks which participate in the PJM Wholesale Markets.





Informational Section

Manual 3 - Transmission Operations Review

Ms. Nicole Scott, PJM, was available to answer questions on updates to Manual 3 – Transmission Operations. Materials are posted as Informational Only.

Future Meeting Dates

May 4, 2017 9:30 a.m. June 8, 2017 9:30 a.m. July 13, 2017 9:30 a.m. August 10, 2017 9:30 a.m. September 14, 2017 9:30 a.m. October 12, 2017 9:30 a.m. November 9, 2017 9:30 a.m. December 14, 2017 9:30 a.m.	Planning Committee	PJM Conference and Training Center, Audubon, PA
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Author: Bridgid Cummings

Attendees

Attendees	Company	Sector
Steve Herling (Chair)	PJM Interconnection, LLC	Not Applicable
Bridgid Cummings (Secretary)	PJM Interconnection, LLC	Not Applicable
Nicolas Koehler	AEP Indiana-Michigan Transmission Company, Inc.	Transmission Owner
Sanjoy Sarawgi	AEP Indiana-Michigan Transmission Company, Inc.	Transmission Owner
Sean Black	Ameren Corporation	Not Applicable
Kristin Rothey	American Municipal Power, Inc.	Electric Distributor
Gary Fuerst	American Transmission Systems, Inc.	Transmission Owner
David Tates	American Transmission Systems, Inc.	Transmission Owner
Jim Zweig	American Transmission Systems, Inc.	Transmission Owner
Brock Ondayko	Appalachain Power Company	Transmission Owner
Ryan Dolan	Appalachian Power Company	Transmission Owner
Takis Laios	Appalachian Power Company	Transmission Owner
Chukwuemeka Igwilo	Baltimore Gas and Electric Company	Transmission Owner
Hugh Scott	Baltimore Gas and Electric Company	Transmission Owner
Eric Yeh	Baltimore Gas and Electric Company	Transmission Owner
James Jablonski	Borough of Butler, Butler Electric Division	Electric Distributor
Ron Pezon	Borough of Chambersburg	Electric Distributor
Travis Bouslog	Burns & McDonnell Engineering Company Inc	Not Applicable
Tom Hoatson	Carroll County Energy LLC	Other Supplier
Michael Natrin	Carroll County Energy LLC	Other Supplier
Yan Du	Central Transmission, LLC	Transmission Owner
Barry Trayers	Citigroup Energy, Inc.	Other Supplier
William Allen	Commonwealth Edison Company	Transmission Owner
Alan Engelmann	Commonwealth Edison Company	Transmission Owner
John Garavaglia	Commonwealth Edison Company	Transmission Owner
Paul Mills	Commonwealth Edison Company	Transmission Owner
Ronald Regner	Commonwealth Edison Company	Transmission Owner
John Hafner	Competitive Power Ventures, Inc.	Not Applicable



Jaclyn Cantler

Draft Minutes



Dan Griffiths Consumer Advocates of PJM States
Greg Poulos Consumer Advocates of PJM States

Bruce Campbell Cpower
Jamie Lejcar CPS Energy

Guy Filomena Customized Energy Solutions, Ltd.* Carl Johnson Customized Energy Solutions, Ltd.* Jonathan Sasser Customized Energy Solutions, Ltd.* John Horstmann Dayton Power & Light Company (The) Michael Russ Dayton Power & Light Company (The) Hertzel Shamash Dayton Power & Light Company (The) Joseph DeLosa DE Public Service Commission John Farber DE Public Service Commission

Ruth Ann Price Division of the Public Advocate of the State of Delaware

Delmarva Power & Light Company

Ronnie Bailey Dominion Virginia Power
Kyle Hannah Dominion Virginia Power
Bao Pham Dominion Virginia Power
Sarah Rana Dominion Virginia Power
Frank Zhang Dominion Virginia Power
George Owens Downes Associates, Inc.
Greg Pakela DTE Energy Trading, Inc.

Steve Steinkuhl Duke Energy Business Services LLC

Julie Mason Duke Energy Ohio, Inc.
Steve Abate Duquesne Light Company
Tonja Wicks Duquesne Light Company

Chirag Mehta Durable Power

Iker Chocarro E.on Climate & Renewables North America, Inc

Darrin Adams
East Kentucky Power Cooperative, Inc.
Nathan Bradley
East Kentucky Power Cooperative, Inc.
Wes Fluty
East Kentucky Power Cooperative, Inc.
Scott Sells
East Kentucky Power Cooperative, Inc.
Amanda Stacy
East Kentucky Power Cooperative, Inc.
Kevin Kilgallen
Emerald Energy Consulting, LLC

Steve Huntoon Energy Counsel, LLP

Malcolm Ainspan Energy Curtailment Specialists, Inc.
Eric DeBellis Environmental Law & Policy Center

Gina Jardot Essential Power, LLC
Nick Gangi Eversource Energy

Nick Gangi Mike Kormos Exelon Business Services Company, LLC Pablo Ovando Exelon Business Services Company, LLC Tony Tong Exelon Business Services Company, LLC Jason Barker Exelon Business Services Company, LLC Melanie Sanders Exelon Business Services Company, LLC Robert Taylor Exelon Business Services Company, LLC Kevin Thundiyil Exelon Business Services Company, LLC Jeffrey Yuknis Exelon Business Services Company, LLC Not Applicable
Not Applicable
Other Supplier
Electric Distributor
Not Applicable
Not Applicable
Not Applicable
Transmission Owner
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Not Applicable
Electric Distributor
Other Supplier
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Not Applicable
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Not Applicable

Not Applicable

Transmission Owner

Not Applicable
Generation Owner
Not Applicable
Transmission Owner





Sharon Midgley Exelon Generation Co., LLC Roozbeh Shegarfi Exelon Generation Co., LLC Thomas Bainbridge FirstEnergy Solutions Corp. Martin Bolan FirstEnergy Solutions Corp. Lou D'Alessandris FirstEnergy Solutions Corp. FirstEnergy Solutions Corp. **David Marton** John Syner FirstEnergy Solutions Corp. Michael Borgatti Gabel and Associates Travis Stewart Gabel and Associates GE Energy Financial Services Amy Fisher

Rachel Hulett Gridliance, GP, LLC
David Pratzon GT Power Group

Roy Shanker H.Q. Energy Services (U.S.), Inc.
Jim Nash Hudson Transmission Partners, LLC
Bob Thomas Illinois Municipal Electric Agency

Kenneth Foladare IMG Midstream LLC
Joe Staszowski ISO New England
Brenda Prokop ITC Interconnect

John Kopinski ITC Mid-Atlantic Development LLC

Ben Abing ITC Transmission

Robert Colozza LS Power Transmission, LLC

Robert O'Connell Main Line Electricity Market Consultants

Heather Thomson Mareo

David Mabry McNees Wallace & Nurick LLC
Erik Hanser Michigan Public Service Commission
Christin Domian Mitsubishi Electric Power Products Inc.

John Dadourian Monitoring Analytics

Zach Gill Sanford Navigant

Douglas Dickson New Jersey Board of Public Utilities

George Kogut New York Power Authority

Mason EmnettNextEra Energy Power Marketing, LLCDean BuschNextEra Energy Resources, LLCJim ArkersonNextEra Energy Resources, LLCFrederico Von PinhoNextEra Energy Transmission, LLC

Gabriel Hollis Nextera Energy, Inc

Jung Suh Noble Americas Energy Solutions LLC

John Lemire North Carolina Electric Membership Corporation
Miles Taylor Northern Indiana Public Service Company

Neal Fitch NRG Power Marketing LLC
John Donelson Old Dominion Electric Cooperative

Mike Donnelly

Gloria Godson

PEPCO Holdings, Inc.

Patricia Kurowski

PEPCO Holdings, Inc.

Pave Anders

PJM Interconnection, LLC

Aaron Berner

PJM Interconnection, LLC

Chris Callaghan

PJM Interconnection, LLC

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

Not Applicable
Transmission Owner
Other Supplier
Not Applicable

Transmission Owner
Not Applicable

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Other Supplier

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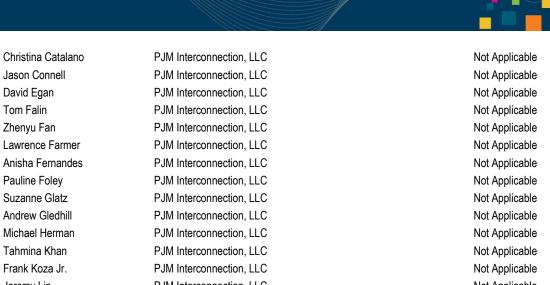
Electric Distributor
Other Supplier
Generation Owner
Electric Distributor
Transmission Owner
Transmission Owner
Transmission Owner
Not Applicable
Not Applicable

Not Applicable



William Lavista

Draft Minutes



Jeremy Lin PJM Interconnection, LLC Not Applicable Lagy Mathew 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 Asanga Perera PJM Interconnection, LLC Not Applicable Dave Picarelli PJM Interconnection, LLC Not Applicable

John Reynolds PJM Interconnection, LLC Not Applicable Nick Rodak PJM Interconnection, LLC Not Applicable Jason Shoemaker PJM Interconnection, LLC Not Applicable Stan Sliwa PJM Interconnection, LLC Not Applicable Julia Spatafore PJM Interconnection, LLC Not Applicable Mike Ward PJM Interconnection, LLC Not Applicable Glenn Weiss PJM Interconnection, LLC Not Applicable

Not Applicable

Transmission Owner

Alex Worcester PJM Interconnection, LLC

Zelalem Tekle PowerGEM Not Applicable Michele Greening PPL Electric Utilities Corp. dba PPL Utilities Generation Owner Steven Nadel PPL Electric Utilities Corp. dba PPL Utilities Transmission Owner Cleveland Richards PPL Electric Utilities Corp. dba PPL Utilities Transmission Owner Chip Richardson PPL Electric Utilities Corp. dba PPL Utilities Transmission Owner Kriti Dawadi PSEG Energy Resources and Trade LLC Transmission Owner Sam Giordano PSEG Energy Resources and Trade LLC Transmission Owner Gary Greiner PSEG Energy Resources and Trade LLC Transmission Owner

PSEG Energy Resources and Trade LLC

Mark MarsanPSEG Energy Resources and Trade LLCTransmission OwnerShuting GuoPublic Service Electric & Gas CompanyTransmission OwnerJames CaristiaPublic Service Electric & Gas CompanyTransmission OwnerDaniel HuttPublic Service Electric & Gas CompanyTransmission OwnerEsam KhadrPublic Service Electric & Gas CompanyTransmission Owner

Leonid LyakhovichPublic Service Electric & Gas CompanyTransmission OwnerJerry MartinezPublic Service Electric & Gas CompanyTransmission OwnerJohn NagurneyPublic Service Electric & Gas CompanyTransmission OwnerGreg PlayerPublic Service Electric & Gas CompanyTransmission Owner





Alexander Stern Ming Zhou

Chandana Bommareddy

Joel Yu

Rory Sweeney

Andy Peebles Jennifer Hohenshilt

Syed Ahmad Leanne Kuehnle John Sillin Adam Weber

Brian Hamilton

Steve Chafin

Patricia Lobb Ata Modiri Public Service Electric & Gas Company Public Service Electric & Gas Company

Quanta Technology

Rockland Electric Company

RTO Insider

Shell Energy North America (US), LP

Talen Energy Marketing, LLC

The Federal Energy Regulatory Commission The Federal Energy Regulatory Commission The Federal Energy Regulatory Commission Union Electric Company d/b/a Ameren Missouri

Unknown

Virginia Electric & Power Company

Unkown Unknown Transmission Owner Transmission Owner Not Applicable Transmission Owner Not Applicable

Other Supplier Generation Owner Not Applicable Not Applicable Not Applicable Other Supplier

Unknown

Transmission Owner

Unkown Unknown