



May Planning Committee Teleconference / WebEx May 12, 2020 9:00 a.m. – 1:45 p.m. EPT

Administration (9:00-9:15)

- 1. Dave Souder, PJM, called the meeting to order and Molly Mooney, PJM, reviewed the Antitrust, Code of Conduct, media participation, and WebEx guidelines.
- 2. Molly Mooney reviewed the May 12, 2020 Planning Committee Agenda. No changes to the agenda were requested.
- 3. Ms. Molly Mooney reviewed the draft minutes posted for the April 14th, 2020 meeting and the Planning Committee approved the minutes.

Dave Souder, PJM, announced on May 22nd there will be a special MRC session in the afternoon to conduct education related to HVDC Converters

Dave Souder, PJM, discussed the May 1 Executive Order on Securing the United States Bulk-Power System and the subsequently DOE outline "Four Pillars" of Actions on the President's Executive Order. PJM will provide future updates as part of a PC agenda item.

Endorsements (9:15-11:15)

4. Storage as Transmission Asset

Jeff Goldberg, PJM, presented a second read of a problem statement/issue charge regarding storage as a transmission asset. The committee endorsed the Storage as Transmission Asset issue charge with an acclamation vote of 1 objection and 0 abstentions.

5. Market Efficiency Process Enhancement Task Force Update

Jack Thomas, PJM, reviewed the work completed at the Market Efficiency Process Enhancement Task Force. The Committee voted on three packages in the category: Regional Targeted Market Efficiency Project process (category A), three packages in the category: Benefit Calculation (category B), and two packages in the category: Window for Capacity Drivers (category C).

The committee voted on all eight packages with the following results:

- Category A1 (PJM): 55% Yes, 45% No, 0% Abstain [PASS]
- Category A2 (IMM): 12% Yes, 88% No, 0% Abstain [FAIL]
- Category A4 (AEP): 56% Yes. 44% No. 0% Abstain [PASS]

The committee voted if A4 was preferable to the status quo. This vote passed with 58% Yes and 42% No.

- Category B1 (PJM): 52% Yes, 48% No, 0% Abstain [PASS]
- Category B2 (IMM): 16% Yes, 84% No, 0% Abstain [FAIL]
- Category B4 (First Energy): 54% Yes, 46% No. 0% Abstain [PASS]

The committee voted if B4 was preferable to the status quo. This vote passed with 56% Yes and 44% No.





- Category C1 (PJM): 52% Yes, 48% No, 0% Abstain [PASS]
- Category C2 (IMM): 25% Yes, 75% No, 0% Abstain [FAIL]

The committee voted if C1 was preferable to the status quo. This vote passed with 63% Yes and 37% No.

6. Critical Infrastructure Stakeholder Oversight

- A. Robert Taylor, Exelon, presented a second read of a redline version of the Critical Infrastructure Stakeholder Oversight Issue Charge.
- B. Erik Heinle, Office of the People's Council for the District of Colombia, presented an alternate to the redline version of the Critical Stakeholder Oversight Issue Charge.

The committee voted first on the Critical Infrastructure Stakeholder Oversight redlined issue charge from Exelon. The committee then voted on the alternate Critical Infrastructure Oversight redlined issue charge from the DC-OPC. The committee approved the redlined issue charge from Exelon with a vote of 61% Yes, 39% No, 0% Abstain. The committee did not approve the alternate redlined issue charge from DC-OPC with a vote of 39% Yes, 61% No, 0% Abstain.

First Reads (11:15- 12:15)

7. PMU Placement in RTEP Planning Process

Shaun Murphy, PJM, reviewed the Problem Statement, Issue Charge and proposed solution to address the need for PMU Placement in the RTEP planning process. PJM will schedule a PMU training session in advance of the June PC. The committee will be asked to approve the issue charge and endorse the proposed manual language as part of the Quick Fix process outlined in Section 8.6.1 of Manual 34 at the June PC meeting.

8. 2020 RRS Assumptions

Jason Quevada, PJM, presented the 2020 RRS assumptions as developed in the Resource Adequacy Analysis Subcommittee. The committee will be requested to endorse the study assumptions at the June PC meeting.

9. Manual 14A, E and G Changes

Ms. Onyinye Caven, PJM, will present changes to Manuals 14A, 14E and 14G identified as part of the periodic review. The committee will be requested to endorse the Manual changes at the June PC meeting.

Informational Updates (12:15 – 1:45)

10. Exelon Transmission Planning Criteria Update

Thomas Leeming, Exelon, provided an overview of the updated 715 criteria that applies to all the Exelon Operating Companies.





11. AMP Transmission Planning Criteria Update

Ryan Dolan, AMP, provided an overview of the updated 715 criteria.

12. <u>Dominion Transmission Planning Criteria Update</u>

Kyle Hannah, Dominion, provided an overview of the updated 715 criteria.

13. FERC Compliance Filing Update

Ray Fernandez, PJM, discussed cost allocation issues associated with multiple orders from FERC that require resettlement.

14. Transmission & Substation Subcommittee Update

Jay Liu, PJM, provided an update on the TSS work activities through 2019 and the first half of 2020 along with a work plan for the remainder of the year.

15. Reliability Compliance Update

Mark Kuras, PJM, provided an update on the activities, issues and items of interest at NERC, SERC, and RF.

16. Load Forecast Update

Andrew Gledhill, PJM, provided an update on estimated Covid-19 impacts on recent loads and discussed analysis shared with the Load Analysis Subcommittee.

17. Critical Infrastructure Stakeholder Update

Christina Stotesbury, PJM, discussed the work being done at the most recent Critical Infrastructure Stakeholder Oversight Special Planning Committee session.

Informational Posting

Model Build Activity Update

- The 2020 series RTEP Trial 3 powerflow cases and associated files are being reviewed by PJM staff and
 the Transmission Owners. The preliminary 5 year short circuit results have been provided to PJM's
 Transmission Planning Department; they will reach out to Transmission Owners with any questions. PJM's
 System Planning Modeling and Support Department will reach out about any potential baselines for the 2
 year case.
- The 2019 series MMWG 2020 winter study case is being updated. There will be two Trials where
 Transmission Owners are able to provide updates. The final updates will be provided to PowerTech by PJM
 on May 22, 2020.
- For the 2020 series MMWG powerflow cases, Transmission Owners are able to submit updates to project files via Model on Demand, provide load and device profiles for all 12 cases and Tie Line updates to PJM by May 22, 2020.

MOD-032 Update

 Posted with materials for the May PC is a document describing 2020 MOD-032 updates. The Gen Model window will open May 1 and remain open through June 15. Generator Owners have the option of using data





submitted in previous years to prepopulate the 2020 forms. Gen Model link: https://pjm.com/planning/services-requests/planning-modeling-submission-mod-032.aspx; for any questions or comments email MOD-032@pjm.com

PJM Interconnection Queue Status Update

PJM has posted slides showing an update on the status of the PJM Interconnection Queues.

Capacity Capability Senior Task Force Update

The Capacity Capability Senior Task Force charter was approved at the March 26 MRC in order to consider provisions to implement Effective Load Carrying Capability to calculate the capacity market capability of all Intermittent Resources (such as wind and solar) and limited duration resources (such as Energy Storage Resources). The group aims to complete a proposal in August for filing with FERC before October 30, consistent with a deadline FERC set in an April 10 order. PJM proposed design components at the second meeting on April 27, and the group will consider proposed solution options at the May 20 meeting.

Proposed Amendments to Attachment M-3 of the PJM Tariff

The Notice of Transmission Owners Consultation with the Members Committee Regarding Proposed Amendments to Attachment M-3 of the PJM Tariff is available on behalf of the PJM Transmission Owners has been posted with today's meeting materials. Note that written comments on the Attachment M-3 Amendments may be submitted for consideration by email to: Comments for Transmission_Owners@pjm.com on or before June 8, 2020.

Future Meeting Dates

Thursday, May 21, 2020 Tuesday, June 02, 2020 Friday, June 19, 2020 Tuesday, July 07, 2020 Tuesday, August 04, 2020 Tuesday, September 01, 2020 Tuesday, October 06, 2020 Wednesday, November 04, 2020	9:00 a.m. – 12:00 p.m. 9:00 a.m. – 12:00 p.m. 1:00 p.m. – 4:00 p.m. 9:00 a.m. – 12:00 p.m.	Special PC: Critical Infrastructure Planning Committee Special PC: Critical Infrastructure Planning Committee Planning Committee Planning Committee Planning Committee Planning Committee Planning Committee	WebEx PJM Conference & Training Center/ WebEx
Tuesday, December 01, 2020	9:00 a.m. – 12:00 p.m.	Planning Committee	PJM Conference & Training Center/ WebEx

Not Applicable

Attendance List David Souder (Chair)

Molly Mooney (Secretary)	PJM Interconnection, LLC	Not Applicable
Jeff Dennis	Advanced Energy Economy	Not Applicable
Ed Achaab	AEP Energy Partners, Inc.	Other Supplier
Kiran Thammineni	Ameren Corporation	Not Applicable
Tyler Berton	American Electric Power	Not Applicable
Ryan Dolan	American Municipal Power	Electric Distributor
Gerit Hull	American Municipal Power, Inc.	Electric Distributor
Art Iler	American Municipal Power, Inc.	Electric Distributor
Steven Lieberman	American Municipal Power, Inc.	Electric Distributor
Gary Fuerst	American Transmission Systems, Inc.	Transmission Owner
Brock Ondayko	Appalachain Power Company	Transmission Owner

PJM Interconnection. LLC





David Canter Takis Laios Brinda Malladi Kevin Kilgallen Zelalem Tekle Gary Guy John McDaniel Eric Yeh Tom Jens Ron Pezon Brian Vavda

Diane Janicki Stephen Kelly Tony Lopez-Lopez

Greg Poulos Bill Allen Alan Engelmann Paul Mills

Ron Regner Rehan Gilani Haibin Sun Guy Filomena

Lynn Horning Carl Johnson Jonathan Sasser Chris Jylkka

John Horstmann Joe DeLosa **David Hastings** Ruth Ann Price

David Witt

Mark Gill Kyle Hannah Tania Jones Connie Lowe Bao Pham Yajun Zheng Ryen Lawson

William Jett Steve Steinkuhl John Sturgeon Julie Mason Mandy Meadors Steve Abate Gian Alian Joe Pilch Patrick Grau

Iker Chocarro

Darrin Adams Nathan Bradley Chuck Dugan John Brodbeck Rob Stupar

Malcolm Ainspan

Bruce Campbell Thomas Leeming Harsha Jasti Sharon Midgley Pablo Ovando Melanie Sanders Robert Taylor Kevin Thundiyil

Russel Schiefer Roozbeh Shegarfi Chad Singer

Appalachian Power Company Appalachian Power Company Arevon Energy Management Avangrid Renewables LLC Baltimore Gas and Electric

Baltimore Gas and Electric Company Baltimore Gas and Electric Company Baltimore Gas and Electric Company

Black Oak Energy, LLC Borough of Chambersburg Borough of Park Ridge

Boston Energy Trading and Marketing LLC

Brookfield Energy Marketing LP Bryndan Associates, Inc.

CÁPS

Commonwealth Edison Company Commonwealth Edison Company Commonwealth Edison Company Commonwealth Edison Company

ConEdison Energy, Inc.

Constellation Energy Services, Inc. Customized Energy Solutions, Ltd. Customized Energy Solutions, Ltd. Customized Energy Solutions, Ltd. Customized Energy Solutions, Ltd. Daymark Energy Advisors

Dayton Power & Light Company (The) DE Public Service Commission

Dhast Co

Division of the Public Advocate of the State of Delaware

Dominion Energy Dominion Energy Virginia Dominion Virginia Power Duke Energy Business Services LLC

Duke Energy Business Services LLC Duke Energy Carolinas, LLC Duke Energy Ohio, Inc. Duke Energy Ohio, Inc. **Duquesne Light Company** Duquesne Light Company **Duquesne Light Company** Dynegy Marketing and Trade, LLC

E.ON Climate & Renewables North America, Inc.

East Kentucky Power Cooperative, Inc. East Kentucky Power Cooperative, Inc. East Kentucky Power Cooperative, Inc. EDP Renewables North America, LLC

Enel Green Power

Energy Curtailment Specialists, Inc.

EnergyConnect, Inc.

Exelon

Exelon Business Services Company, LLC Exelon Business Services Company, LLC

Exelon Generation Co., LLC Exelon Generation Co., LLC

Fellon McCord

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

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Other Supplier Transmission Owner Generation Owner Generation Owner Not Applicable





Tom Bainbridge FirstEnergy Solutions Corp. Jim Benchek FirstEnergy Solutions Corp. Lou D'Alessandris FirstEnergy Solutions Corp. Larre Hozempa FirstEnergy Solutions Corp. Jeff Stuchell FirstEnergy Solutions Corp. Emma Nix Gabel and Associates Tom Hyzinski **GT Power Group** Rory Sweeney GT Power Group Jeff Whitehead GT Power Group Mike Gahimer IN Office of Utility Consumer Counselor

Indiana Utility Regulatory Commission Dave Johnston John Kopinski ITC Mid-Atlantic Development LLC Kent Chandler Kentucky Government LS Power Transmission, LLC Joshua York David Mabry McNees Wallace & Nurick LLC Erik Hanser Michigan Public Service Commission Jennifer Phillips Middle River Power I, LLC

Christin Domian Mitsubishi Electric Power Products Inc. John Dadourian Monitoring Analytics, LLC Monitoring Analytics, LLC Howard Haas

Jane Wei Monitoring Analytics, LLC David Brown New Jersey Board of Public Utilities **Emily Smithman** New Jersey Board of Public Utilities New York Power Authority George Kogut Gabriel Hollis NextEra Energy Transmission, LLC

Frederico Von Pinho NextEra Energy Transmission, LLC Jung Suh Noble Americas Energy Solutions LLC Ruth Holdbrook Northern Virginia Electric Cooperative Northern Virginia Electric Cooperative John Rainey Erik Heinle

Office of the Peoples Counsel for the District of Columbia

Ohio Electric Cooperatives Tom Schmidt Bill Sauibb Ohio Valley Electric Adrien Ford Old Dominion Electric Cooperative

Bill Pezalla Old Dominion Electric Cooperative Mark Ringhausen Old Dominion Electric Cooperative Gregory Carmean

Tomas Rodriguez OPSI Imelda Foley Other Regina Carrado PECO Energy Company

Mike Donnelly PECO Energy Company Pulin Shah PECO Energy Company Ray Rouault PEPCO Holdings, Inc. PJM Interconnection, LLC Elizabeth Anastasio **David Anders** PJM Interconnection, LLC PJM Interconnection, LLC Scott Baker Aaron Berner PJM Interconnection, LLC Matthew Bernstein PJM Interconnection 11 C Mike Bryson PJM Interconnection, LLC Onyinye Caven PJM Interconnection, LLC Brian Chmielewski PJM Interconnection, LLC Byoungkon Choi PJM Interconnection. LLC Kyle Clifford PJM Interconnection, LLC Jason Connell PJM Interconnection, LLC Ilyana Dropkin PJM Interconnection, LLC Nicolae Dumitriu PJM Interconnection. LLC

David Egan PJM Interconnection, LLC Janell Fabiano PJM Interconnection, LLC Tom Falin PJM Interconnection, LLC Zhenvu Fan PJM Interconnection, LLC Raymond Fernandez PJM Interconnection, LLC Pauline Foley PJM Interconnection, LLC Suzanne Glatz PJM Interconnection, LLC Andrew Gledhill PJM Interconnection, LLC Jim Glennon PJM Interconnection, LLC

Jeffrey Goldberg

Transmission Owner Transmission Owner Transmission Owner Transmission Owner Transmission Owner Not Applicable Not Applicable Not Applicable Not Applicable End User Customer Not Applicable Other Supplier Not Applicable Transmission Owner Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable

Not Applicable Not Applicable Not Applicable Not Applicable Other Supplier Other Supplier Other Supplier Other Supplier Electric Distributor Electric Distributor

End User Customer Not Applicable Generation Owner Electric Distributor Electric Distributor Electric Distributor Not Applicable Not Applicable Not Applicable Transmission Owner Transmission Owner Transmission Owner

Transmission Owner

Not Applicable Not Applicable

PJM Interconnection, LLC





Michele Greening	PJM Interconnection, LLC
Joe Hay	PJM Interconnection, LLC
Suzanne Herel	PJM Interconnection, LLC
Michael Herman	PJM Interconnection, LLC
Liem Hoang	PJM Interconnection, LLC
Tim Horger	PJM Interconnection, LLC
Richard Konowal	PJM Interconnection, LLC
Mark Kuras	PJM Interconnection, LLC
Matthew LaRocque	PJM Interconnection, LLC
Jay Liu	PJM Interconnection, LLC
Amanda Long	PJM Interconnection, LLC
Yiming Mao	PJM Interconnection, LLC
Paul McGlynn	PJM Interconnection, LLC
Shaun Murphy	PJM Interconnection, LLC
Darlene Phillips	PJM Interconnection, LLC
Chris Pilong	PJM Interconnection, LLC
Jason Quevada	PJM Interconnection, LLC
John Reynolds	PJM Interconnection, LLC
Paul Scheidecker	PJM Interconnection, LLC
Ken Schuyler	PJM Interconnection, LLC
David Schweizer	PJM Interconnection, LLC
Ken Seiler	PJM Interconnection, LLC
Jordan Shenk	PJM Interconnection, LLC
Jeffrey Shields	PJM Interconnection, LLC
Mark Sims	PJM Interconnection, LLC
Stan Sliwa	PJM Interconnection, LLC
Jeff Slusser	PJM Interconnection, LLC
Jim Snow	PJM Interconnection, LLC
Mark Stanisz	PJM Interconnection, LLC
Christina Stotesbury	PJM Interconnection, LLC
Jack Thomas	PJM Interconnection, LLC
Jen Tribulski	PJM Interconnection, LLC
Stuart Widom	PJM Interconnection, LLC
Jere Williamson Downs	PJM Interconnection, LLC
Art Wolfe	PJM Interconnection, LLC
Scott Gass	PowerGEM
Shadab Ali	PPL Electric Utilities Corp
John Feller	PPL Electric Utilities Corp

PowerGEM
PPL Electric Utilities Corp. dba PPL Utilities
PSEG Energy Resources and Trade LLC
Public Service Electric & Gas Company

Recurrent Energy LLC
ReliabilityFirst Corporation
Riverside Generating, LLC
Rockland Electric Company
Rockland Electric Company
RTO Insider

Rollie Mangonon Rockland Ele Rich Heidorn RTO Insider Michael Yoder RTO Insider

Sameera Kancherla

Orlando Marrero-Torres Steven Nadel

Christopher Szmodis

Leonid Lyakhovich

Meagan Kuchan

Amber Thomas

Gary Greiner

Esam Khadr

Rich Marinelli

Cari VanAmburg

Alex Stern Heather Svenson

Ray Mason

Tom Hoatson

Lubaba Islam

Bill Skumanich

Sean Chang

John Rohrbach

Jennifer Hohenshilt

Brad Swalwell

RTR Energy Solutions LLC

Shell Energy North America (US), LP

Southern Maryland Electric Cooperative

Talen Energy Marketing, LLC

Tangent Energy Solutions, Inc.

Kenneth Foladare Tan

Syed Ahmad The Federal Energy Regulatory Commission
John Sillin The Federal Energy Regulatory Commission

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

Not Applicable





Ibrahima Kalle Edrissa Cham Vince DeGiusto Mike Cizenski David Essah Neil Joshipura Ronnie Bailey Craig Crider Chris Mertz Peter Nedwick James Wilson Tibiri Energies
Tradewind Energy, Inc.
UGI Utilities, Inc.
Virgina State Corporation Commission
Virgina State Corporation Commission
Virgina State Corporation Commission
Virginia Electric & Power Company
Wilson Energy Economics

Not Applicable
Not Applicable
Transmission Owner
Not Applicable
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Not Applicable
Transmission Owner
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Not Applicable

Author: Molly Mooney