



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): 87 Yes (55%), 72 No (45%), 15 Abstain [PASS]
- Category A2 (IMM): 19 Yes (12%), 143 No (88%), 12 Abstain [FAIL]
- Category A4 (AEP): 89 Yes (56%), 71 No (44%), 14 Abstain [PASS]

The committee voted if A4 was preferable to the status quo. This vote passed with 97 Yes (58%), 71 No (42%), and 12 Abstain.

- Category B1 (PJM): 82 Yes (52%), 75 No (48%), 17 Abstain [PASS]
- Category B2 (IMM): 26 Yes (16%), 135 No (84%), 13 Abstain [FAIL]
- Category B4 (First Energy): 84 Yes (54%), 73 No (46%), 17 Abstain [PASS]

The committee voted if B4 was preferable to the status quo. This vote passed with 93 Yes (56%), 73 No (44%), 14 Abstain.





- Category C1 (PJM): 82 Yes (52%), 75 No (48%), 17 Abstain [PASS]
- Category C2 (IMM): 40 Yes (25%), 119 No (75%), 15 Abstain [FAIL]

The committee voted if C1 was preferable to the status quo. This vote passed with 102 Yes (63%), 61 No (37%), 5 Abstain.

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 95 Yes (61%), 62 No (39%), 25 Abstain. The committee did not approve the alternate redlined issue charge from DC-OPC with a vote of 51 Yes (39%), 80 No (61%), 24 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

Tuesday, September 01, 2020 9:00 a.m. – 12:00 p.m. Planning Committee PJM Conference & Training Center/ WebEx Planning Committee PJM Conference & Training Center/ WebEx Wednesday, November 04, 2020 9:00 a.m. – 12:00 p.m. Planning Committee PJM Conference & Training Center/ WebEx Planning Committee PJM Conference & Training Center/ WebEx	3 / /	•	· ·	· · · · · · · · · · · · · · · · · · ·
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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 Rven 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 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

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Generation Owner

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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. Gabel and Associates Emma Nix Tom Hyzinski **GT Power Group** GT Power Group Rory Sweeney Jeff Whitehead GT Power Group Mike Gahimer IN Office of Utility Consumer Counselor

Mike Ganimer
Dave Johnston
Indiana Utility Regulatory Commission
Indiana Utility Regulatory Commission
ITC Mid-Atlantic Development LLC
Kent Chandler
Joshua York
David Mabry
LS Power Transmission, LLC
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
Howard Haas Monitoring Analytics, LLC

Howard Haas

Jane Wei

David Brown

Emily Smithman

Monitoring Analytics, LLC

New Jersey Board of Public Utilities

New Jersey Board of Public Utilities

George Kogut

Gabriel Hollis

New York Power Authority

NextEra Energy Transmission, LLC

NextEra Energy Transmission, LLC

NextEra Energy Transmission, LLC

Noble Americas Energy Solutions LLC

Northern Virginia Electric Cooperative

Northern Virginia Electric Cooperative

Erik Heinle Office of the Peoples Counsel for the District of Columbia

PJM Interconnection. LLC

PJM Interconnection, LLC

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

Mark Ringhausen Old Dominion Electric Cooperative
Gregory Carmean OPSI
Tomas Rodriguez OPSI
Imelda Foley Other

Zhenvu Fan

Pauline Foley

Suzanne Glatz

Andrew Gledhill

Jim Glennon Jeffrey Goldberg

Raymond Fernandez

Regina Carrado PECO Energy Company Mike Donnelly PECO Energy Company PECO Energy Company Pulin Shah 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 PJM Interconnection 11 C Matthew Bernstein 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 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 Other Supplier Other Supplier Other Supplier Other Supplier Electric Distributor Electric Distributor **End User Customer** Not Applicable Generation Owner Electric Distributor Electric Distributor

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

Electric Distributor

Not Applicable Not Applicable





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

Cari VanAmburg Recurrent Energy LLC
Ray Mason ReliabilityFirst Corporation
Tom Hoatson Riverside Generating, LLC
Lubaba Islam Rockland Electric Company
Rollie Mangonon Rockland Electric Company
Rich Heidorn RTO Insider

Rich Heidorn RTO Insider
Michael Yoder RTO Insider
Bill Skumanich RTR Energy Solutions LLC

Sameera Kancherla

Orlando Marrero-Torres

Christopher Szmodis

Leonid Lyakhovich

Heather Svenson

Meagan Kuchan

Steven Nadel

Amber Thomas

Gary Greiner

Esam Khadr

Rich Marinelli

Alex Stern

Sean Chang Shell Energy North America (US), LP
John Rohrbach Southern Maryland Electric Cooperative
Jennifer Hohenshilt Talen Energy Marketing, LLC
Brad Swalwell Tangent Energy Solutions, Inc.

Kenneth Foladare Tangibl

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
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Transmission Owner
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Not Applicable

Author: Molly Mooney