



Planning Committee PJM Conference and Training Center, Audubon, PA June 8, 2017

Administration

- 1. Mr. Paul McGlynn, PJM, called the meeting to order and reviewed the Code of Conduct and Anti-Trust. Mr. Mark Sims reviewed the upcoming Siemens trainings being offered at PJM's Campus, details are available via this link: http://www.pjm.com/~/media/committees-groups/committees/pc/20170608/20170608-informational-pim-siemens-training.ashx.
- 2. Mr. McGlynn asked Ms. Bridgid Cummings to review the meeting minutes of the May 4, 2017 Planning Committee meeting. Mr. McGlynn asked the Planning Committee to approve the minutes. Mr. Dave Pratzon made a motion to approve the minutes. Mr. Barry Trayers seconded the motion. In a voice vote, the Planning Committee approved the May 4, 2017 Planning Committee Minutes.

Endorsements

3. PJM Manual 14F

Mr. Michael Herman, PJM, reviewed the proposed draft of Manual 14F: PJM Competitive Planning Process Manual. He noted that the consideration of cost cap/containment provisions for competitive proposals will continue to be discussed at Special PC Sessions, the next being held on July 18, 2017. Mr. John Kopinski made a motion to endorse and Mr. David Scarpignato seconded the motion. There were no objections and two abstentions. In a voice vote, the Planning Committee endorsed the new Manual 14F.

4. 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 requirements developed by the DEDSTF will be applicable to all proposals that require the signing of a Designated Entity Agreement (DEA). Mr. Barry Trayers made a motion to endorse and Mr. Dave Pratzon seconded the motion. There was one objection and one abstention. In a voice vote, the Planning Committee endorsed the Designated Entity Design Standards.

5. PJM Manual 14C

Ms. Suzanne Glatz, PJM, presented updates to Manual 14C: Generation and Transmission Interconnection Facility Construction. The updates are to align the manual language with the work being completed through the Designated Entity Design Standards Task Force. Mr. Dave Pratzon made a motion to endorse and Mr. Alex Stern seconded the motion, there were no objections and one abstention. In a voice vote, the Planning Committee endorsed the updates to Manual 14C.

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6. IRM Study Assumptions Letter

Mr. Jason Quevada, PJM, presented the assumptions for the 2017 Reserve Requirement Study (RRS) to establish the initial Installed Reserve Margin and Forecast Pool Requirement for the 2012/2022 Delivery Year. Mr. Carl Johnson 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 IRM Study Assumptions Letter.

7. PJM Manual 20

Mr. Patricio Rocha-Garrido, PJM, presented redline changes to Manual 20: PJM Resource Adequacy Analysis. The redline changes are specific to language describing Zonal and Global Locational Deliverability Areas for CETO calculations. Mr. Ronnie Bailey made a motion to endorse and Mr. Carl Johnson seconded the motion, there were no objections and no abstentions. In a voice vote, the Planning Committee endorsed the updates to Manual 20.

First Readings

8. Load Model Selection

Mr. Rocha-Garrido, PJM, presented the results of the Load Model selection process for the 2017 Reserve Requirement Study. The committee will be asked to endorse the Load Model selection at its next meeting.

9. PJM M14B and PJM Operating Agreement Updates – TEAC Redesign

Ms. Amanda Long, PJM, presented updates to PJM Manual 14B (PJM Regional Transmission Process) and the PJM Operating Agreement in regards to the RTEP cycle timeline and the proposal window duration. The updates relate to updating the proposal window from 30 days to 60 days. The committee will be asked to endorse these updates at its next meeting.

Informational Updates

10. PJM Manual 14A

Mr. Joe Hay, PJM, presented an overview of the upcoming redline changes to Manual 14A (Generation and Transmission Interconnection Process). These updates were identified as part of the biennial review of the manual. Redline changes will be brought for review at the July Planning Committee meeting.

11. Light Load Analysis Methodology

Mr. Mark Sims, PJM, provided an overview of the Light Load Analysis methodology and discussed the potential of modifying the test assumptions and parameters to reflect current operations and recent historical data. This will be brought back to the Planning Committee for further discussion.





12. Grid Resilience in System Planning

Mr. Sims, PJM, provided an introduction to grid resilience in Transmission Planning. There was a discussion pertaining to Grid Resilience in Transmission Planning and this will continue to be brought back to the Planning Committee for further discussion.

13. CETL Calculation Discussion

Mr. Sims, PJM, lead a discussion pertaining to the CETL Calculation Methodology. The discussion included a detailed description of how firm and non-firm transfers are modeled currently and in the future. Members are encouraged to contact PJM with any further questions that remain via RTEP@pim.com.

14. Queue Point Update

Mr. Aaron Berner, PJM, provided an update regarding Queue Point. Additional application request types, including Merchant transmission and Upgrade requests, will now also be moving to this new tool beginning June 13, 2017.

15. NERC and Regional Coordination 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 May 4th 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.

16. AEP Planning Criteria

Mr. Nick Koehler, PJM, provided an update regarding the AEP Planning Criteria.

17. PSEG FERC Form 715

Mr. Glenn Catenacci, PSEG, provided an update regarding PSEG FERC Form 715.

Informational Section

PJM is Hosting Two Siemens Courses

This fall, PJM is hosting two courses offered by Siemens, please see posted materials for details: http://www.pjm.com/~/media/committees-groups/committees/pc/20170608/20170608-informational-pjm-siemens-training.ashx Advance registration thru Siemens is required.

Winter Season Resource Adequacy and Capacity Requirements

The Resource Adequacy Analysis Subcommittee reviewed further analysis results related to the Winter Season Resource Adequacy and Capacity Requirements Problem Statement. The analysis examined the following items for the RTO and for selected LDAs: winter forced outage distributions, actual winter





planned outages vs. PRISM winter planned outages and winter generator maintenance. This discussion will continue at the July 6th RAAS meeting.

Order 1000 Projects and Cost Capping/Cost Commitment Special PC Meeting

On May 24, PJM conducted a Special PC meeting to begin discussion of the Cost Capping/Cost Commitment. The topic of the first meeting was focused on fundamental concepts of cost capping forms that have been observed by PJM and within the industry. The materials included a general overview of rate based revenue recovery fundamentals and Net Present Value calculations of hypothetical projects for different forms of cost capping. The next meetings are scheduled for July 18 and August 21. Additional meetings will be scheduled as necessary.

MOD-032 Update

Per MOD-032-1 Requirement 2, PJM is requesting that Generator Owners please submit existing generation data into GenModel on the Planning Center website by June 15th. Generators at unit level that are at least 20 MW or have CIRs or generation facilities that have at least 75 MVA at the plant level should submit data. http://planningcenter.pjm.com/genmodel

Future Meeting Dates

July 13, 2017	9:30 a.m.	Planning Committee	PJM Conference and Training Center, Audubon, PA
August 10, 2017	9:30 a.m.	Planning Committee	PJM Conference and Training Center, Audubon, PA
September 14, 2017	9:30 a.m.	Planning Committee	PJM Conference and Training Center, Audubon, PA
October 12, 2017	9:30 a.m.	Planning Committee	PJM Conference and Training Center, Audubon, PA
November 9, 2017	9:30 a.m.	Planning Committee	PJM Conference and Training Center, Audubon, PA
December 14, 2017	9:30 a.m.	Planning Committee	PJM Conference and Training Center, Audubon, PA

Author: Bridgid Cummings

Attendees

Attendees	Company	Sector
Paul McGlynn (Chair)	PJM Interconnection, LLC	Not Applicable
Bridgid Cummings (Secretary)	PJM Interconnection, LLC	Not Applicable
Nick Koehler	AEP Indiana-Michigan Transmission Company, Inc.	Transmission Owner
Sean Black	Ameren Corporation	Not Applicable
Steven Lieberman	American Municipal Power, Inc.	Electric Distributor
Kristin Rothey	American Municipal Power, Inc.	Electric Distributor
Edward Tatum	American Municipal Power, Inc.	Electric Distributor
Gary Fuerst	American Transmission Systems, Inc.	Transmission Owner
Jim Zweig	American Transmission Systems, Inc.	Transmission Owner
Adam Hickman	Appalachain Power Company	Transmission Owner
Brock Ondayko	Appalachain Power Company	Transmission Owner
Kevin Patten	Appalachain Power Company	Transmission Owner
Eric Swanger	Appalachain Power Company	Transmission Owner
Takis Laios	Appalachian Power Company	Transmission Owner
Dave Parrish	Appalachian Power Company	Transmission Owner





Rajul Mahmud Baltimore Gas and Electric Company
Hugh Scott Baltimore Gas and Electric Company
Eric Yeh Baltimore Gas and Electric Company
James Jablonski Borough of Butler, Butler Electric Division

Ron Pezon Borough of Chambersburg

Diane Janicki Boston Energy Trading and Marketing LLC
Travis Bouslog Burns & McDonnell Engineering Company Inc

David Scarpignato

Calpine Energy Services, L.P.

Tom Hoatson

Carroll County Energy LLC

Yan Du

Central Transmission, LLC

Barry Trayers

Citigroup Energy, Inc.

Deral Danis Clean Line Energy Partners LLC
Alan Engelmann Commonwealth Edison Company
John Garavaglia Commonwealth Edison Company
Paul Mills Commonwealth Edison Company
Ronald Regner Commonwealth Edison Company

Diana McNally-Barsotti Consolidated Edison

Yonas Habtemichael Constellation NewEnergy, Inc Sandeep Baidwan Continuum Associates, LLC

Bruce Campbell Cpower
Jamie Lejcar CPS Energy

George Owens

Gregory Pakela

Customized Energy Solutions, Ltd.* Guy Filomena Customized Energy Solutions, Ltd.* Carl Johnson Jonathan Sasser Customized Energy Solutions, Ltd.* Michael Russ Dayton Power & Light Company (The) Joseph DeLosa DE Public Service Commission John Farber DE Public Service Commission Dominion Virginia Power Ronnie Bailey Craig Crider Dominion Virginia Power Kyle Hannah Dominion Virginia Power Frank Zhang Dominion Virginia Power

Steve Steinkuhl Duke Energy Business Services LLC

Julie Mason Duke Energy Ohio, Inc.
Judy Stubbe Duke Energy Ohio, Inc.
Tonja Wicks Duquesne Light Company

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

Downes Associates, Inc.

DTE Energy Trading, Inc.

Darrin Adams

East Kentucky Power Cooperative, Inc.

Scott Sells

East Kentucky Power Cooperative, Inc.

Amanda Stacy

East Kentucky Power Cooperative, Inc.

John Brodbeck

EDP Renewables North America, LLC

Kevin Kilgallen

Emerald Energy Consulting, LLC

Malcolm Ainspan

Energy Curtailment Specialists, Inc.

Gina Jardot Essential Power, LLC
Nick Gangi Eversource Energy

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Generation Owner
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Generation Owner
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Pablo Ovando	Exelon Business Services Company, LLC
Melanie Sanders	Exelon Business Services Company, LLC
Robert Taylor	Exelon Business Services Company, LLC
Tony Tong	Exelon Business Services Company, LLC
Robert Taylor	Exelon Business Services Company, L

Christopher Nekolny Exelon Generation Co., LLC Roozbeh Shegarfi Exelon Generation Co., LLC FirstEnergy Solutions Corp. Thomas Bainbridge Jim Benchek FirstEnergy Solutions Corp. Martin Bolan FirstEnergy Solutions Corp. Lou D'Alessandris FirstEnergy Solutions Corp. Andrew Horne FirstEnergy Solutions Corp. Jeff Stuchell FirstEnergy Solutions Corp. FirstEnergy Solutions Corp. John Syner Michael Borgatti Gabel and Associates Derek Hagaman GT Power Group David Pratzon GT Power Group

Roy Shanker H.Q. Energy Services (U.S.), Inc.
Randy Rismiller Illinois Commerce Commission
William VanderLaan Illinois Commerce Commission

Joe Staszowski ISO New England

Ernest Owens ITC Mid-Atlantic Development LLC

Rehan Gilani Leidos

John Seelke LS Power Transmission, LLC
Fred Kelley Maryland Public Service Commission
David Mabry McNees Wallace & Nurick LLC
Erik Hanser Michigan Public Service Commission
Christin Domian Mitsubishi Electric Power Products Inc.

Joseph Bowring Monitoring Analytics

Douglas Dickson New Jersey Board of Public Utilities
George Kogut New York Power Authority

Dean Busch NextEra Energy Resources, LLC
Frederico Von Pinho NextEra Energy Transmission, LLC

Gabriel Hollis Nextera Energy, Inc

Laxman Subedi NiSource

James Manning North Carolina Electric Membership Corporation

Jeff McKinney North Line Utilities LLC

Miles Taylor Northern Indiana Public Service Company

Neal Fitch
NRG Power Marketing LLC
William Pezalla
Old Dominion Electric Cooperative
Mark Ringhausen
Old Dominion Electric Cooperative
Robert Duan
Ontario Power Generation Inc.

Gregory Carmean OPSI

Douglas Dale PECO Energy Company
Mike Donnelly PECO Energy Company
Dhruv Acharya PEPCO Holdings, Inc.
Gloria Godson PEPCO Holdings, Inc.

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Generation Owner
Electric Distributor
Electric Distributor
Other Supplier
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Dave Anders	PJM Interconnection, LLC	Not Applicable
Aaron Berner	PJM Interconnection, LLC	Not Applicable
Nicole Bugay	PJM Interconnection, LLC	Not Applicable
Jason Connell	PJM Interconnection, LLC	Not Applicable
RJ Cundiff	PJM Interconnection, LLC	Transmission Owner
Mary Ellen Driscoll	PJM Interconnection, LLC	Not Applicable
Ilyana Dropkin	PJM Interconnection, LLC	Not Applicable
David Egan	PJM Interconnection, LLC	Not Applicable
Tom Falin	PJM Interconnection, LLC	Not Applicable
Zhenyu Fan	PJM Interconnection, LLC	Not Applicable
Lawrence Farmer	PJM Interconnection, LLC	Not Applicable
Anisha Fernandes	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
Joe Hay	PJM Interconnection, LLC	Not Applicable
Steve Herling	PJM Interconnection, LLC	Not Applicable
Frank Koza Jr.	PJM Interconnection, LLC	Not Applicable
Chuck Liebold	PJM Interconnection, LLC	Not Applicable
Amanda Long	PJM Interconnection, LLC	Not Applicable
Erich Mauroschadt	PJM Interconnection, LLC	Not Applicable
Molly Mooney	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
Jason Shoemaker	PJM Interconnection, LLC	Not Applicable
Stan Sliwa	PJM Interconnection, LLC	Not Applicable
Mark Sims	PJM Interconnection, LLC	Not Applicable
Lauren Strella	PJM Interconnection, LLC	Not Applicable
Preston Walker	PJM Interconnection, LLC	Not Applicable
Mike Ward	PJM Interconnection, LLC	Not Applicable
Stanley Williams	PJM Interconnection, LLC	Not Applicable
Tao Yang	PJM Interconnection, LLC	Not Applicable
Brian Willis	Potomac Electric Power Company	Electric Distributor
Shadab Ali	PPL Electric Utilities Corp. dba PPL Utilities	Transmission Owner
Lisa Krizenoskas	PPL Electric Utilities Corp. dba PPL Utilities	Transmission Owner
Steven Nadel	PPL Electric Utilities Corp. dba PPL Utilities	Transmission Owner
Kriti Dawadi	PSEG Energy Resources and Trade LLC	Transmission Owner
Ray DePillo	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
Bryan Mills	PSEG Energy Resources and Trade LLC	Transmission Owner
Mohamed Zahidi	PSEG Energy Resources and Trade LLC	Transmission Owner
Vilna Gaston	Public Service Electric & Gas	Transmission Owner
Qamar Arsalan	Public Service Electric & Gas Company	Transmission Owner





James Caristia
Public Service Electric & Gas Company
Esam Khadr
Public Service Electric & Gas Company
Leonid Lyakhovich
Public Service Electric & Gas Company
Rich Marinelli
Public Service Electric & Gas Company
John Nagurney
Public Service Electric & Gas Company
Alexander Stern
Public Service Electric & Gas Company
Glenn Catenacci
Public Service Eletric and Gas

Debbie Gebolys Public Utilities Commission of Ohio (The)

Chandana Bommareddy Quanta Technology Ray Mason Reliability First

Roleto Mangonon Rockland Electric Company

Rory Sweeny RTO Insider

Stephanie Tsao S&P Global Market Intelligence Gerry Binder SESCO Enterprises LLC

Andy Peebles Shell Energy North America (US), LP
Neil Joshipura State Corporate Commission Virginia
Tom Hyzinski Talen Energy Marketing, LLC

John Sillin The Federal Energy Regulatory Commission
Adam Weber Union Electric Company d/b/a Ameren Missouri

James Wilson Energy Economics

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