



Planning Committee
PJM Conference and Training Center
November 08, 2018
9:00 a.m. – 12:00 p.m.

Administration (9:00-9:15)

- 1. Mr. Ken Seiler, PJM, called the meeting to order and Ms. Anisha Fernandes, PJM, reviewed the Antitrust, Code of Conduct, media participation, and WebEx guidelines.
- 2. Ms. Anisha Fernandes reviewed the Agenda for the November 08, 2018 Planning Committee meeting. The Planning Committee approved the Agenda.
- 3. Ms. Anisha Fernandes reviewed the draft minutes posted for the October 11, 2018 meeting and the Planning Committee approved the minutes.
- 4. Mr. Ken Seiler reviewed the PC Charter.

Endorsements (9:15-9:30)

5. DER Ride Through Problem Statement & Issue Charge

Dr. Emanuel Bernabeu, PJM, will present the inverter-based DER Ride Through Problem Statement and Issue Charge, and the revised IEEE 1547-2018 standard. By vote of acclamation the Planning Committee endorsed the DER Ride Through Problem Statement & Issue Charge with 0 objections and 0 abstentions.

First Reads (9:30-9:45)

6. Manual 14E Review

Ms. Lisa Krizenoskas, PJM, presented updates to Manual 14E Upgrade & Transmission Interconnection Requests. The committee will be requested to endorse these revisions at the next meeting.

Informational Updates (9:45-12:00)

7. ELCC Analysis of Intermittent Resources

Mr. Patricio Rocha-Garrido, PJM, reviewed the Effective Load Carrying Capability (ELCC) analysis and study results on wind and solar resources. Discussions around the results of the analysis followed. As a follow up to continue these discussions, a PC Special Session has been set up on November 26th from 9am-11:30am.

8. Cost Commitment Status and Next Steps

Mr. Mark Sims, PJM, discussed the status and next steps for the Consideration of Cost Commitment for Evaluation of Competitive Transmission Proposals.

9. Order 841 and Energy Storage/DER

Mr. Andrew Levitt, PJM, presented PJM's compliance with Order 841 with respect to ESR that are behind the customer meter and resilience ESR.





10. PJM Interconnection Queue Status Update

Ms. Brinda Malladi, PJM, provided an update on the status of PJM Interconnection Queues.

11. Submission of Dynamic Models

Mr. Kyle Clifford and Mr. Tao Yang, PJM, discussed moving to generic dynamic models instead of user defined dynamic models.

12. PC Special Session: Order 845 Compliance Requirements

Ms. Susan McGill, PJM, provided an update on the activities of the PC Special Session.

13. **2018 Summer Loads**

Mr. Joseph Tutino, PJM, presented an overview of peak loads and weather experienced in the summer of 2018.

14. AEP Ratings

Mr. Kamran Ali, AEP, discussed updates to AEP Ratings methodology.

15. **ODEC Planning Criteria Changes**

Mr. John Donelson, ODEC, presented ODEC's planning criteria changes. Additional updates will be presented at next month's PC meeting.

16. PRC-001 Standard Update

Mr. Mark Kuras, PJM, provided a status update on the PRC-001 standard, protection coordination requirements and the revised procedure document.

17. Reliability Compliance Update

Mr. Christopher Moran, PJM, provided an update on the activities, issues and items of interest at NERC, SERC, and RF, including the upcoming RF Operations and Planning Audit at PJM in October 2019.

18. Model Build Activity Update

Mr. Kyle Clifford, PJM, provided an update regarding current model build activities, including the 2018 series MMWG/MOD-032 cases.

Future Meeting Dates

January 10, 2019 February 07, 2019 March 07, 2019 April 11, 2019 May 16, 2019 June 13, 2019 July 11, 2019 August 8, 2019 September 12, 2019 October 17, 2019	2:00 a.m. Planning Committee	PJM Conference & Training Center/ WebEx
November 14, 2019 9	0:00 a.m. Planning Committee 0:00 a.m. Planning Committee	PJM Conference & Training Center/ WebEx PJM Conference & Training Center/ WebEx



Attendance List

Eric Laverty Edward Achaab

Ken Seiler (Chair) Anisha Fernandes (Secretary) PJM Interconnection, LLC PJM Interconnection, LLC

AEP Energy Partners, Inc.

AEP Indiana-Michigan Transmission Company, Inc. Nicolas Koehler AK Steel Corporation Greg Long Daniel Vargo Allegheny Electric Cooperative, Inc. American Municipal Power, Inc. Chris Norton Evan Wilcox Appalachain Power Company Appalachian Power Company Kamran Ali Dana Horton Appalachian Power Company Appalachian Power Company Takis Laios Markian Melnyk Atlantic Grid Operations A, LLC Avangrid Renewables LLC Kevin Kilgallen Hugh Scott Baltimore Gas and Electric Company Eric Yeh Baltimore Gas and Electric Company

Ron Pezon Borough of Chambersburg Diane Janicki Boston Energy Trading and Marketing LLC

Stephen Kelly Brookfield Energy Marketing LP David Scarpignato Calpine Energy Services, L.P. Barry Trayers Citigroup Energy, Inc.

CMS Energy Resource Management Company Aaron Martin Bill Allen

Commonwealth Edison Company Kevin Chamberlain Commonwealth Edison Company Thomas Leeming Commonwealth Edison Company Ronald Regner Commonwealth Edison Company ConEdison Energy, Inc. Rehan Gilani

Customized Energy Solutions, Ltd. Guv Filomena Carl Johnson Customized Energy Solutions, Ltd. Customized Energy Solutions, Ltd. Jonathan Sasser Joseph DeLosa DE Public Service Commission

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

Bao Pham Dominion Virginia Power Downes Associates, Inc. George Owens

Duke Energy Business Services LLC Steve Steinkuhl Julie Mason Duke Energy Ohio, Inc. Breanne Melius **Duquesne Light Company** Patrick Grau Dynegy Marketing and Trade, LLC

Earth Networks Thomas Rutigliano

Darrin Adams East Kentucky Power Cooperative, Inc. East Kentucky Power Cooperative, Inc. Nathan Bradley Chuck Dugan East Kentucky Power Cooperative, Inc. East Kentucky Power Cooperative, Inc. Amanda Stacv John Brodbeck EDP Renewables North America, LLC Malcolm Ainspan Energy Curtailment Specialists, Inc.

Bruce Campbell EnergyConnect, Inc.

Sharon Midgley Exelon Business Services Company, LLC Pablo Ovando Exelon Business Services Company, LLC Melanie Sanders Exelon Business Services Company, LLC

Christopher Nekolny Exelon Generation Co., LLC

Chad Singer Fellon McCord Sally Thomas FirstEnergy Corp. Lou D'Alessandris FirstEnergy Solutions Corp. FirstEnergy Solutions Corp. Andrew Horne FirstEnergy Solutions Corp. Lawrence Hozempa FirstEnergy Solutions Corp. Jeff Stuchell Mike Borgatti Gabel and Associates Gabel and Associates

Travis Stewart Donna Robichaud Geenex Laurie Oppel Grid Advisers Inc Tom Hyzinski GT Power Group GT Power Group David Pratzon

John Kopinski ITC Mid-Atlantic Development LLC Not Applicable Not Applicable

Electric Distributor Other Supplier Transmission Owner End User Customer Electric Distributor Flectric Distributor Transmission Owner Transmission Owner Transmission Owner Transmission Owner Other Supplier Generation Owner Transmission Owner Transmission Owner Electric Distributor Generation Owner Other Supplier

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

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

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Kent Chandler

Medha Pai

Wenzheng Qiu

Jason Quevada

John Reynolds

Jonathan Ruffin

Jason Shoemaker

Ken Schuvler

Susan Snyder

Mark Sims

Patricio Rocha-Garrido

Draft Meeting Minutes

McNees Wallace & Nurick LLC David Mabry Erik Hanser Michigan Public Service Commission Christin Domian Mitsubishi Electric Power Products Inc. Alexandra Salaneck Monitoring Analytics Monitoring Analytics, LLC John Dadourian New Jersey Board of Public Utilities David Brown George Kogut New York Power Authority Ed Benson NextEra Energy Marketing LLC NextEra Energy Power Marketing, LLC Stephen Gibelli NextEra Energy Transmission, LLC Gabriel Hollis NextEra Energy Transmission, LLC Frederico Von Pinho Nextera Energy, Inc Steven Greco Northern Indiana Public Service Company Miles Taylor Erik Heinle Office of the Peoples Counsel for the District of Columbia Ohio Electric Cooperatives Tom Schmidt Bill Squibb Ohio Valley Electric John Donelson Old Dominion Electric Cooperative Adrien Ford Old Dominion Electric Cooperative Bill Pezalla Old Dominion Electric Cooperative **Gregory Carmean** Other Ron Slagel Douglas Dale PECO Energy Company Pulin Shah PECO Energy Company PJM Interconnection, LLC **David Anders** Madalyn Beban PJM Interconnection, LLC Stephen Berger PJM Interconnection, LLC Emanuel Bernabeu PJM Interconnection, LLC Aaron Berner PJM Interconnection, LLC Nicole Bugay PJM Interconnection, LLC Brian Chmielewski PJM Interconnection, LLC Kyle Clifford PJM Interconnection, LLC Jason Connell PJM Interconnection, LLC Danielle Croop PJM Interconnection, LLC Nicolae Dumitriu PJM Interconnection, LLC David Egan PJM Interconnection, LLC Janell Fabiano PJM Interconnection, LLC Tom Falin PJM Interconnection, LLC Larry Farmer PJM Interconnection, LLC Pauline Foley PJM Interconnection, LLC Suzanne Glatz PJM Interconnection, LLC Andrew Gledhill PJM Interconnection, LLC PJM Interconnection, LLC Jim Glennon Michele Greening PJM Interconnection, LLC Steve Herling PJM Interconnection, LLC Bill Khashfe PJM Interconnection, LLC Lisa Krizenoskas PJM Interconnection, LLC Mark Kuras PJM Interconnection, LLC Matthew LaRocque PJM Interconnection, LLC Andrew Levitt PJM Interconnection, LLC Tawnva Luna PJM Interconnection, LLC Brindavani Malladi PJM Interconnection, LLC Susan McGill PJM Interconnection, LLC Paul McGlynn PJM Interconnection, LLC Megan McLaverty PJM Interconnection, LLC Molly Mooney PJM Interconnection, LLC Christopher Moran PJM Interconnection, LLC

Kentucky Government

Not Applicable Other Supplier Other Supplier Generation Owner Other Supplier Other Supplier Other Supplier Other Supplier End User Customer Not Applicable Generation Owner Flectric Distributor Electric Distributor Electric Distributor Not Applicable Not Applicable Transmission Owner Transmission Owner Not Applicable Not Applicable



Michelle Souder Joseph Tutino Stanley Williams Xu Xu Tao Yang Zelalem Tekle Amber Thomas Shadab Ali Orlando Marrero-Torres Phil Penny Cleveland Richards William Schubert Ramesh Hariharan William Lavista Qamar Arsalan **Daniel Hutt** Esam Khadr Leonid Lyakhovich Tom Hoatson

Brian O'Boyle Rory Sweeney Andy Peebles Gerry Binder Kenneth Foladare

Roleto Mangonon

Weili Yi Syed Ahmad Edrissa Cham Adam Weber Neil Joshipura Ronnie Bailey James Wilson PJM Interconnection, LLC PJM Interconnection, LLC PJM Interconnection, LLC PJM Interconnection, LLC PJM Interconnection, LLC

PowerGEM
PPL Electric Utilities Corp. dba PPL Utilities
PSC

PSEG Energy Resources and Trade LLC Public Service Electric & Gas Company Public Service Electric & Gas Company Public Service Electric & Gas Company Public Service Electric & Gas Company

Riverside Generating, LLC Rockland Electric Company Rockland Electric Company RTO Insider

Saracen Energy East LP SESCO Enterprises LLC

Tangibl

The Energy Authority, Inc

The Federal Energy Regulatory Commission

Tradewind Energy, Inc.

Union Electric Company d/b/a Ameren Missouri Virgina State Corporation Commission Virginia Electric & Power Company Wilson Energy Economics Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Transmission Owner Transmission Owner Transmission Owner Transmission Owner Transmission Owner Not Applicable Transmission Owner Transmission Owner Transmission Owner Transmission Owner Transmission Owner Other Supplier Transmission Owner Transmission Owner Not Applicable Other Supplier Other Supplier Not Applicable Not Applicable Not Applicable

Not Applicable

Other Supplier

Not Applicable

Not Applicable

Transmission Owner

Not Applicable

Author: Anisha Fernandes