

DER and Inverter-based Resources Subcommittee

WebEx Only

January 5, 2022

9:00 a.m. – 3:00 p.m. ET

Administration (9:00 – 9:10)

1. Scott Baker opened the meeting and reviewed the agenda.
2. Hamad Ahmed reviewed the meeting participation guidelines. The minutes from December's DIRS were approved with 0 objections and 0 abstentions.

Order 2222 – Compliance filing (9:10 – 12:15)

3. Thomas DeVita, PJM, reviewed modifications to the Order 2222 governing document language based on stakeholder feedback.
 - Thomas reviewed several redlines on the Tariff Definitions C-D, Operating Agreement, Definition C-D and Tariff, Attachment K-Appendix, section 1.4C and Operating Agreement, Schedule 1, section 1.4C. Thomas also discussed redlines within the RAA Schedule 1.
 - Stakeholders provided additional feedback and suggested modifications to improve the Tariff language. PJM committed to considering the feedback and making adjustments as appropriate.
 - Stakeholders were requested to provide their redline edits to the facilitation team, and/or Thomas.DeVita@pjm.com by Friday January 7, 2022.

Order 2222 – Use cases (1:00 – 2:45)


4. Madalyn Beban, PJM, presented updates to DER use cases.
 - Madalyn reviewed use cases 4 in detail (DER and load curtailment at a retail customer site), discussed briefly use cases 5 & 6, provided a recap of how PJM is viewing net energy metering customers and their ability to participate in PJM markets, ancillary service only participation, and potential next steps.
5. Stakeholders presented use case examples.
 - Brain Kauffman, Enel X North America, Inc, discussed three DER use case examples involving customer-sited DER and load curtailment.

Order 2222 – Informational Only

6. In response to stakeholder requests, an example of nodal impacts for a given constraint on the transmission system was posted on the DIRS page as informational only.

Wrap-up and Action items (2:45 – 3:00)

7. The facilitation team reviewed action items from the meeting and took requests for future agenda items.

Future Meeting Dates and Materials			Materials Due to Secretary 	Materials Published
Date	Time	Location	5 p.m.	4 p.m.
January 14, 2022 – EDC Coordination Workshop	8:00 – 12:00	WebEx	January 6, 2022	January 11, 2022
January 18, 2022	9:00 – 12:00	WebEx	January 7, 2022	January 12, 2022
February 25, 2022	9:00 – 4:00	WebEx	February 16, 2022	February 22, 2022
March 28, 2022	9:00 – 4:00	WebEx	March 18, 2022	March 23, 2022
April 29, 2022	9:00 – 4:00	WebEx	April 22, 2022	April 27, 2022
May 31, 2022	9:00 – 4:00	WebEx	May 23, 2022	May 26, 2022
June 23, 2022	9:00 – 4:00	WebEx	June 15, 2022	June 20, 2022

Author: Hamad Ahmed

WebEx Meeting Attendance

Name	Company Name	Sector
Syed Ahmad	Federal Energy Regulatory Commission	
Hamad Ahmed	PJM Interconnection	None
William Allen	Commonwealth Edison Company	Transmission Owner
David Anders	PJM Interconnection	None
Jeff Baker	PJM Connect	
Scott Baker	PJM Interconnection	None
Madalyn Beban	PJM Interconnection	None
Jim Benchek	FirstEnergy Corporation	
Emanuel Bernabeu	PJM	
Tyler Berton	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Donnie Bielak	PJM Interconnection	None
John Borkoski	MD Public Service Commission	
Joe Bowring	Monitoring Analytics	
Glen Boyle	PJM Interconnection	None
Aaron Breidenbaugh	Centrica Business Solutions Optimize, LLC	Other Supplier
John Brodbeck	EDP Renewables North America LLC	Generation Owner
Michael Bryson	PJM Internal	

Zachary Callen	Illinois Commerce Commission	
Bruce Campbell	Enerwise Global Technologies, LLC	Other Supplier
David Canter	Appalachian Power Company (AEP Generation)	Transmission Owner
Gregory Carmean	Organization of PJM States, Inc.	
Rebecca Carroll	PJM Interconnection	None
Edrissa Cham	Savion, LLC	
Sean Chang	Shell Energy North America (US), L.P.	Other Supplier
Mahila Christopher	Public Utilities Commission of Ohio	
Roseanne Circelli	Public Service Electric & Gas Company	Transmission Owner
Chandra Colaresi	Enerwise Global Technologies, LLC	Other Supplier
Billy Coyle	Dominion Virginia Power	Transmission Owner
Louis D'Alessandris	American Transmission Systems, Inc.	Transmission Owner
Patrick Dalton	MISO	
Elizabeth Davis	PJM Interconnection	None
James Davis	Dominion Energy Generation Marketing, Inc.	Generation Owner
Joseph DeLosa	New Jersey Board of Public Utilities	
Laura DiNicola	firstenergy	
Mamadou Diong	Dominion Virginia Power	Transmission Owner
Nicholas Disciullo	PJM Interconnection	None
Christin Domian	Duquesne Light Company	Transmission Owner
Rick Drom	Rick Drom	
Chuck Dugan	East Kentucky Power Cooperative, Inc.	Transmission Owner
Nicolae Dumitriu	PJM Interconnection	None
Subbarao Eedupuganti	PJM Interconnection	
Rachel Elkins	American Transmission Systems, Inc.	Transmission Owner
David Ellis	Public Service Electric & Gas Company	Transmission Owner
Theresa Esterly	PJM Interconnection	None
zhenyu fan	PJM Interconnection	None
Ray Fernandez	PJM Interconnection	None
Guy Filomena	Customized Energy Solutions, Ltd.	None
Kenneth Foladare	Geenex Solar LLC	Other Supplier

Sheila Foley	PJM Interconnection	None
Adrien Ford	Old Dominion Electric Cooperative	Electric Distributor
Denise Foster Cronin	East Kentucky Power Cooperative, Inc.	Transmission Owner
Darrell Frogg	PJM Interconnection	None
Christian Fuess	PBF Power Marketing, LLC	End-Use Customer
Peter Fuller	Autumn Lane Energy Consulting LLC	
Jill Gates	PJM Interconnection	
Terry Gates	Appalachian Power Company (AEP Generation)	Transmission Owner
Rehan Gilani	ConEdison Energy, Inc.	Other Supplier
Suzanne Glatz	PJM Interconnection	None
Craig Glazer	PJM Interconnection	None
Michele Greening	PJM Interconnection	None
Albert Grisolia	Public Service Electric & Gas Company	Transmission Owner
Gary Guy	Baltimore Gas and Electric Company	Transmission Owner
Erik Hanser	Michigan Public Service Commission	
Gary Hartman	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner
Thomas Hauske	PJM Interconnection	None
Frederick Heinle	Office of the Peoples Counsel	
Suzanne Herel	PJM Interconnection	None
Tom Hoatson	West Deptford Energy, LLC	Generation Owner
Phil Hoffer	Appalachian Power Company (AEP Transmission)	Transmission Owner
Jennifer Hohenshilt	Talen Energy Marketing, LLC	Generation Owner
Lynn Marie Horning	Customized Energy Solutions, Ltd.	None
John Horstmann	Dayton Power & Light Company (The)	Transmission Owner
Steven Hughes	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner
Gerit Hull	American Municipal Power, Inc.	Electric Distributor
Inwook Hwang	Baltimore Gas and Electric Company	Transmission Owner
Tom Hyzinski	GT Power Group, LLC	None
Arthur Iler	Indiana Office of Utility Consumer Counselor	
Farhad Jamshidian	OSI Digital Grid Solutions	

Gina Jardot	NRG Curtailment Solutions, Inc.	Other Supplier
Thomas Jens	Black Oak Capital, LLC	Other Supplier
William Jett	Duke Energy Business Services LLC	Transmission Owner
Carl Johnson	Customized Energy Solutions, Ltd.	None
Nathaniel Johnson	Appalachian Power Company (AEP Generation)	Transmission Owner
Clark Kaml	Power System Engineering	
Brian Kauffman	Enel X North America, Inc.	Other Supplier
Samuel Kayne	Delaware PSC	
Stephen Kelly	Brookfield Renewable Trading and Marketing LP (BSMH)	Other Supplier
Janessa Kent	Duquesne Light Company	Transmission Owner
David Kimmel	PJM Interconnection	None
George Kogut	New York Power Authority	Other Supplier
Brian Kooiman	The Ad Hoc Group	
Katherine Legates	Appalachian Power Company (AEP Generation)	Transmission Owner
Cecilia Liang-Nicol	Allegheny Power (MonPwr Gen)	
Steven Lieberman	American Municipal Power, Inc.	Electric Distributor
Xi Lu	Ford Motor Company	
Leonid Lyakhovich	Public Service Electric & Gas Company	Transmission Owner
David Mabry	McNees Wallace & Nurick LLC	
Yohannes Mariam	Office of the People's Counsel for the District of Columbia	
Brian McArdle	NextEra Energy Marketing, LLC	Other Supplier
Maura McClelland	PUCO	
John McCombIII	PJM Interconnection	None
Katharine McCormick	Illinois Commerce Commission	
Christian McDewell	Pennsylvania Public Utility Commission	
Timothy McInerney	Commonwealth Edison Company	Transmission Owner
Justin McNeil	Kentucky Public Service Commission	
John Metz	University of Delaware	
Sharon Midgley	Exelon Business Services Company, LLC	Transmission Owner
John Miller	Calico Energy	
Edward Mirfin	EE Energy	

David Mroz	PJM Interconnection	
		Transmission Owner
Steven Nadel	PPL Electric Utilities Corp. dba PPL Utilities (TO)	
		Electric Distributor
Koushy Nareshkumar	Potomac Electric Power Company	
		Transmission Owner
Mike Nester	Dominion Virginia Power (EDC)	
		Transmission Owner
Nathaniel Nichols	PECO Energy Company	
		Other Supplier
Emma Nix	Jersey Green Energy LLC	
		Electric Distributor
Chris Norton	American Municipal Power, Inc.	
James Okenfuss	Savion, LLC	
Michael Olaleye	PJM Interconnection	None
		Transmission Owner
Brock Ondayko	AEP Energy Partners, Inc. (AEP Gen Resources)	
Sara Parkison	University of Delaware	
		Transmission Owner
John Peoples	Duquesne Light Company	
Christopher Pilong	PJM Interconnection	None
		Transmission Owner
Joseph Polka	Duquesne Light Company	
Greg Poulos	PJM Committee Voting Generic Account	
Ruth Price	Delaware Division of the Public Advocate	
		Transmission Owner
Michael Purdie	Dominion Virginia Power	
Farrokh Rahimi	Open Access Technology International, Inc.	None
		Electric Distributor
John Rainey	Northern Virginia Electric Cooperative (NOVEC)	
Ryann Reagan	New Jersey Board of Public Utilities	
Temujin Roach	EDF Renewable Development, Inc.	
Tomas Rodriguez	Organization of PJM States, Inc.	
		Electric Distributor
John Rohrbach	Wabash Valley Power Association, Inc.	
		Transmission Owner
Amanda Rumsey	PPL Electric Utilities Corp. dba PPL Utilities (TO)	
Tom Rutigliano	Natural Resources Defense Council	
Jonathan Sasser	Customized Energy Solutions, Ltd.	None
		Generation Owner
David Scarp	Calpine Energy Services, L.P.	
		Other Supplier
Kenneth Schisler	Enerwise Global Technologies, LLC	
David Schmitt	New Jersey Board Of Public Utilities	
Morris Schreim	MD PSC	

CONNIE SCHROEDER	Dominion Virginia Power	Transmission Owner
Mark Smith	AEP Energy Partners, Inc. (AEP Retail)	Transmission Owner
James Sorrels	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Paul Sotkiewicz	E-Cubed Policy Associates	
Vincent Stefanowicz	PJM Interconnection	None
Ed Stein	Ohio Edison Company	Electric Distributor
Alexander Stern	Public Service Electric & Gas Company	Transmission Owner
Zachary Stines	Borrego Solar	
Heather Svenson	Public Service Electric & Gas Company	Transmission Owner
Brad Swalwell	Tangent Energy Solutions, Inc.	Other Supplier
Eric Swanger	Appalachian Power Company (AEP Transmission)	Transmission Owner
Kristin Swenson	Midcontinent Independent Sys Op, Inc. (CTS)	
Robert Taylor	Commonwealth Edison Company	Transmission Owner
Zelalem Tekle	Bath County Energy, LLC	Generation Owner
Kevin Thundiyil	Exelon Generation Co., LLC (NEV_XLON)	Generation Owner
Andrea Tighe	CAPS	
Catherine Tyler	Monitoring Analytics	
Jim Waight	Siemens Industry, Inc.	Other Supplier
Jacqueline Walker	Duke Energy Carolinas, LLC	Other Supplier
Luan Watson	Potomac Electric Power Company	Electric Distributor
John Webster	Icetec.com, Inc.	Other Supplier
Kathleen Wehnes	Maryland Department of the Environment	
Christopher Wehr	Ohio Edison Company (EDC)	Electric Distributor
Matthew Wharton	Guidehouse Inc.	None
Jeffrey Whitehead	GT Power Group	
Amy Willey	Delaware Public Service Commission	
De Andre Wilson	Maryland Public Service Commission	
Megan Wisersky	Madison Gas & Electric Co.	Other Supplier
Damon Xenopoulos	Other	

Andrea Yeaton	PJM Interconnection	None
Michael Yoder	RTO Insider	
Kyungjin Yoo	Monitoring Analytics	
Vivian Younes	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner
Mike Zhang	PJM Interconnection	None

Antitrust:

You may not discuss any topics that violate, or that might appear to violate, the antitrust laws including but not limited to agreements between or among competitors regarding prices, bid and offer practices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that might unreasonably restrain competition. If any of these items are discussed the chair will re-direct the conversation. If the conversation still persists, parties will be asked to leave the meeting or the meeting will be adjourned.

Code of Conduct:


As a mandatory condition of attendance at today's meeting, attendees agree to adhere to the PJM Code of Conduct as detailed in PJM Manual M-34 section 4.5, including, but not limited to, participants' responsibilities and rules regarding the dissemination of meeting discussion and materials.

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Minutes

As of January 10, 2022

Provide feedback on the progress of this group: [Facilitator Feedback Form](#)
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