

DER and Inverter-based Resources Subcommittee – EDC Workshop

WebEx Only

November 9, 2021

9:00 a.m. – 12:00 p.m. ET

Administration (9:00 – 9:05)

1. Scott Baker opened the meeting and review the agenda.
2. Hamad Ahmed reviewed the meeting participation guidelines.

Order 2222 – Pro-forma Service Agreement (9:05 – 9:30)

3. Thomas DeVita, PJM, discussed modifications to the draft pro-forma DER Aggregation Participation Service Agreement (DAPSA) based on stakeholder feedback.
 - Thomas reviewed numerous redline changes to the DAPSA removing the distribution utility from being a party to the agreement. The agreement is required to be part of PJM's compliance filing on Order 2222.

Order 2222 – Utility Coordination Topics (9:30 – 11:00)

4. Steve Hughes, PPL, reviewed additional utility feedback on use cases and the need for complete end to end process discussion including metering, telemetry and settlement.
5. Chris Wehr, Ohio Edison Company, discussed additional settlement items and feedback from previous EDC coordination presentation.

Education – DER Management Systems (DERMS) (11:00 – 11:45)

6. Sally Jacquemin, OSI, provided an overview of DERMS functionality and its role in distribution system operations.
 - Sally provided an overview of OSI and technology needs of DER in grid management. Sally discussed DERMS, a comprehensive DER management system and its connectivity to several system interfaces. Sally discussed real-time/DER communication.
 - Sally discussed solving challenges through distributed energy management, the functionality enabled with Order 2222 and the software approach for enabling Order 2222. Sally also reviewed several key takeaways from the presentation.

Action items (11:45 – 12:00)

7. The facilitation team reviewed action items from the meeting and took requests for future agenda items, which included the following:
 - Detail discussion on Market Agent and Dispatch Agent for future DIRS.

- If PJM receives any comments on DAPSA, PJM will bring it back at future DIRS.
- Additional detail/rationale on PJM's proposed implementation timing.
- Review of customer-level data being exchanged.

WebEx Meeting Attendance

Name	Company Name	Sector
Hamad Ahmed	PJM Interconnection	None
Melissa Alfano	Solar Energy Industry Association	
William Allen	Commonwealth Edison Company	Transmission Owner
David Anders	PJM Interconnection	None
Qamar Arsalan	Public Service Electric & Gas Company	Transmission Owner
Jeff Baker	PJM Connect	
Scott Baker	PJM Interconnection	None
George Beam	PPL Elec Utilities Corp dba PPL Utilities (PPL POLR Small C&I)	Transmission Owner
Madalyn Beban	PJM Interconnection	None
Jim Benchek	FirstEnergy Corporation	
Tyler Berton	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Donnie Bielak	PJM Interconnection	None
Michael Borgatti	PJM Committee Voting Generic Account	
John Borkoski	MD Public Service Commission	
Joe Bowring	Monitoring Analytics	
Glen Boyle	PJM Interconnection	None
Aaron Breidenbaugh	Black Dog Insights	
Aaron Breidenbaugh	Centrica Business Solutions Optimize, LLC	Other Supplier
John Brodbeck	EDP Renewables North America LLC	Generation Owner
Michael Bryson	PJM Internal	
Kevin Bunch	EDF Trading North America, LLC	Other Supplier
Kat Burnham	Advanced Energy Economy (AEE)	
Kevin Burns	Open Access Technology International, Inc.	None
Zachary Callen	Illinois Commerce Commission	
Bruce Campbell	Enerwise Global Technologies, LLC	Other Supplier
Sean Chang	Shell Energy North America (US), L.P.	Other Supplier

		Generation Owner
Iker Chocarro Aguirrebengoa	RWE Renewables Americas, LLC	
Mahila Christopher	Public Utilities Commission of Ohio	
Roseanne Circelli	Public Service Electric & Gas Company	Transmission Owner
Chandra Colaresi	Enerwise Global Technologies, LLC	Other Supplier
Nancy Connelly	Duke Energy Ohio, Inc.	Transmission Owner
James Conrad	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner
Jeff Currier ES	Dominion Virginia Power	Transmission Owner
Kerinia Cusick	Center for Renewables Integration	
Louis D'Alessandris	American Transmission Systems, Inc.	Transmission Owner
Behnam Danai	Open Access Technology International, Inc.	None
Elizabeth Davis	PJM Interconnection	None
James Davis	Dominion Energy Generation Marketing, Inc.	Generation Owner
Joseph DeLosa	New Jersey Board of Public Utilities	
Brett Denby	Northern Virginia Electric Cooperative (NOVEC)	Electric Distributor
Thomas DeVita	PJM Interconnection	None
Laura DiNicola	firstenergy	
Mamadou Diong	Dominion Virginia Power	Transmission Owner
Ryan Dolan	Dayton Power & Light Company (The) (EDC)	Transmission Owner
Christin Domian	Duquesne Light Company	
Rick Drom	Rick Drom	
Chuck Dugan	East Kentucky Power Cooperative, Inc.	Transmission Owner
Nicolae Dumitriu	PJM Interconnection	None
David Egan	PJM Interconnection	None
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
Brett Feldman	Other	


Guy Filomena	Customized Energy Solutions, Ltd.	None
Brian Fitzpatrick	PJM Interconnection	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
Peter Fuller	Autumn Lane Energy Consulting LLC	
Betty Fung	Recurrent Energy, LLC	Other Supplier
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
Gary Greiner	PSEG Energy Resources and Trade LLC	Other Supplier
Jeffrey Guistwhite	PJM Interconnection	
Erik Hanser	Michigan Public Service Commission	
Gary Hartman	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner
Jason Hathcock	Strata Solar	
Thomas Hauske	PJM Interconnection	None
Chad Heitmeyer	Appalachian Power Company (AEPSCO)	Transmission Owner
Rebecca Hilderbrand	EY	
Tom Hoatson	West Deptford Energy, LLC	Generation Owner
Phil Hoffer	Appalachian Power Company (AEP Transmission)	Transmission Owner
Cynthia Holland	Atlantic City Electric Company	Electric Distributor
Lynn Marie Horning	Customized Energy Solutions, Ltd.	None
John Horstmann	Dayton Power & Light Company (The)	Transmission Owner
Eric Hsia	PJM Interconnection	None
Gerit Hull	American Municipal Power, Inc.	Electric Distributor
Benjamin Hunter	BSHunter	
Tom Hyzinski	gtpghyzinsk	

Arthur Iler	Indiana Office of Utility Consumer Counselor	
Farhad Jamshidian	OSI Digital Grid Solutions	
Gina Jardot	NRG Curtailment Solutions, Inc.	Other Supplier
William Jett	Duke Energy Business Services LLC	Transmission Owner
Bethany Johnson	PPL Electric Utilities Corp. dba PPL Utilities (TO)	Transmission Owner
Carl Johnson	Customized Energy Solutions, Ltd.	None
Nathaniel Johnson	Appalachian Power Company (AEP Generation)	Transmission Owner
David Johnston	Other	
Clark Kaml	Power System Engineering	
Brian Kauffman	Enel X North America, Inc.	Other Supplier
Stephen Kelly	Brookfield Renewable Trading and Marketing LP (BSMH)	Other Supplier
Bakhtawar Khan	Jersey Green Energy LLC	Other Supplier
Brady Klein	EnergyHub	
Nicolas Koehler	Appalachian Power Company (AEP Transmission)	Transmission Owner
George Kogut	New York Power Authority	Other Supplier
Dimitar Kozhuharov	State Commissions	
Takis Laios	Appalachian Power Company (AEP Transmission)	Transmission Owner
David Leventhal	Dayton Power & Light Company (The) (EDC)	Transmission Owner
Andrew Levitt	PJM Interconnection	None
Cecilia Liang-Nicol	Allegheny Power (MonPwr Gen)	Electric Distributor
Steven Lieberman	American Municipal Power, Inc.	
Camille Littlefield	AMP Solar US Services, LP.	
CONNIE LOWE	Dominion Virginia Power	Transmission Owner
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	
Valerie martin	Federal Energy Regulatory Commission	
Doug Matheson	Enel X North America, Inc.	Other Supplier
Brian McArdle	NextEra Energy Marketing, LLC	Other Supplier
John McCombIII	PJM Interconnection	None
Katharine McCormick	Illinois Commerce Commission	
Christian McDewell	Pennsylvania Public Utility Commission	

Paul McGlynn	PJM Interconnection	None
		Transmission Owner
Timothy McInerney	Commonwealth Edison Company	
Justin McNeil	Kentucky Public Service Commission	
John Metz	University of Delaware	
		Transmission Owner
Sharon Midgley	Exelon Business Services Company, LLC	
		Transmission Owner
Terrence Moran	Public Service Electric & Gas Company	
		Electric Distributor
Koushy Nareshkumar	Potomac Electric Power Company	
		Transmission Owner
Mike Nester	Dominion Virginia Power (EDC)	
Ryan Nice	PJM Interconnection	
		Transmission Owner
Nathaniel Nichols	PECO Energy Company	
		Electric Distributor
Chris Norton	American Municipal Power, Inc.	
		Electric Distributor
Cynthia Nowell	Potomac Electric Power Company	
		Transmission Owner
Brock Ondayko	AEP Energy Partners, Inc. (AEP Gen Resources)	
keyurbhai patel	PJM Interconnection	None
		Transmission Owner
John Peoples	Duquesne Light Company	
Darlene Phillips	PJM Interconnection	None
Christopher Pilon	PJM Interconnection	None
		Transmission Owner
Joseph Polka	Duquesne Light Company (ARS)	
Salil Pradhan	Salil LLC	
		Transmission Owner
Nicholas Pratt	PPL Electric Utilities Corp. dba PPL Utilities (TO)	
Ruth Price	Delaware Division of the Public Advocate	
Wenzheng Qiu	PJM Interconnection	None
Farrokh Rahimi	Open Access Technology International, Inc.	None
		Electric Distributor
John Rainey	Northern Virginia Electric Cooperative (NOVEC)	
Jim REILLY	Reilly Associates	
Tomas Rodriguez	Organization of PJM States, Inc.	
		Electric Distributor
John Rohrbach	Wabash Valley Power Association, Inc.	
		Transmission Owner
Alexa Rooney	PPL Electric Utilities Corp. dba PPL Utilities (TO)	

Alex Rosenblatt	Duquesne Light Company	Transmission Owner
James Rouland	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner
Amanda Rumsey	PPL Electric Utilities Corp. dba PPL Utilities (TO)	Transmission Owner
Jonathan Sasser	Customized Energy Solutions, Ltd.	None
David Scarp	Calpine Energy Services, L.P.	Generation Owner
David Scarpignato	Calpine Energy Services, L.P.	Generation Owner
Bahaa Seireg	Rockland Electric Company	Transmission Owner
William Sharkazy III	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner
Evan Shearer	Duke Energy Business Services LLC	Transmission Owner
Mohit Singh	Commonwealth Edison Company	Transmission Owner
James Sorrels	AEP Appalachian Transmission Company, Inc.	None
Rebecca Stadelmeyer	PJM Interconnection	None
Vincent Stefanowicz	PJM Interconnection	None
Alexander Stern	Public Service Electric & Gas Company	Transmission Owner
Heather Svenson	Public Service Electric & Gas Company	Transmission Owner
Brad Swalwell	Tangent Energy Solutions, Inc.	Other Supplier
Rory Sweeney	GT Power Group, LLC	None
Kristin Swenson	Midcontinent Independent Sys Op, Inc. (CTS)	Generation Owner
Kevin Thundiyil	Exelon Generation Co., LLC (NEV_XLON)	
Andrea Tighe	CAPS	
Jim Waight	Siemens Industry, Inc.	Other Supplier
Jerry Warchol	Dominion Virginia Power (EDC)	Transmission Owner
Kathleen Wehnes	Maryland Department of the Environment	
Christopher Wehr	Ohio Edison Company (EDC)	Electric Distributor
Christopher Werner	Appalachian Power Company (AEP Transmission)	Transmission Owner
Matthew Wharton	Guidehouse Inc.	None
Jeffrey Whitehead	GT Power Group	

Amy Willey	Delaware Public Service Commission	
Fernie Williams	East Kentucky Power Cooperative, Inc.	Transmission Owner
De Andre Wilson	Maryland Public Service Commission	
Megan Wisersky	Madison Gas & Electric Co.	Other Supplier
Damon Xenopoulos	Other	
Andrea Yeaton	PJM Interconnection	None
Cheri Yochelson	Dominion Virginia Power	Transmission Owner
Michael Yoder	RTO Insider	
Kyungjin Yoo	Monitoring Analytics	
Vivian Younes	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner

Future Meeting Dates and Materials			Materials Due to Secretary 	Materials Published
Date	Time	Location	5 p.m.	4 p.m.
November 22, 2021	9:00 – 3:00	WebEx	November 12, 2021	November 17, 2021
December 9, 2021-EDC Coordination workshop	3:00 – 5:00	WebEx	December 1, 2021	December 6, 2021
December 21, 2021	9:00 – 4:00	WebEx	December 13, 2021	December 16, 2021

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