

## DER and Inverter-based Resources Subcommittee

WebEx Only

January 7, 2021

9:00 a.m. – 4:00 p.m. ET

### Administration (9:00 - 9:15)

1. Scott Baker opened the meeting and reviewed the agenda.
2. Hamad Ahmed reviewed the meeting participation guidelines. The minutes from the December DIRS meeting were approved with 0 objections and 0 abstentions.
3. Scott Baker reviewed the DIRS work plan.
  - Scott stated that the public distribution microgrids issue is completed.
4. Scott Baker reviewed a DER terminology guide.
  - Scott briefly discussed definition of Distributed Energy Resource (DER), Distributed Energy Resource Aggregator (DERA), Behind the Meter Generation (BTMG), and the generic terms distributed energy resource, behind the meter, and behind a customer's meter. This document will continue to evolve to help guide stakeholder discussions.

### Order 2222 – EDC Coordination Workshop (9:15 – 11:15)

5. PJM staff reviewed directives within Order 2222 that require close coordination with distribution utilities. PJM Staff also sought input from distribution companies and other stakeholders about potential approaches to these coordination processes.
  - PJM staff highlighted ground rules and discussed upcoming schedule for the DIRS meetings and EDC coordination workshops.
  - PJM staff opened up the floor to various EDCs via questions regarding utility review and operational coordination on FERC order no. 2222.

### Order 2222 – Discussion on compliance directives (11:35 – 3:00); (Lunch, 12:15 – 1:00)

6. PJM staff introduced some initial thoughts, and some potential solutions, to certain aspects of Order 2222 and DER Aggregation, including interconnection, size requirements, locational requirements, and the opt-in process for small utilities.
  - PJM staff sought stakeholder feedback on initial PJM positions regarding the topics above, and polled stakeholders for their feedback via in-meeting polling.

## Solar-Battery Hybrid Resources (3:00 – 3:50)

7. Andrew Levitt reviewed the hybrid solutions matrix, noting changes to PJM staff solution options since the last meeting.
  - Andrew discussed different solution options for the hybrid matrix. PJM stakeholders provided their feedback towards the matrix and their solution options recorded.
  - Andrew will continue the discussion around the solution matrix in the next DIRS meeting.

## Action items and next meeting agenda (3:50 – 4:00)

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

## Future Meeting Dates

January 19, 2021 – EDC Workshop	2:30 – 4:00	WebEx
February 3, 2021	9:00 – 4:00	WebEx
February 12, 2021 – EDC Workshop	1:00 – 3:00	WebEx
March 3, 2021	9:00 – 4:00	WebEx
March 15, 2021 – EDC Workshop	9:00 – 11:00	WebEx
March 31, 2021	9:00 – 4:00	WebEx
April 28, 2021	9:00 – 4:00	WebEx
May 25, 2021	9:00 – 12:00	WebEx
June 22, 2021	9:00 – 12:00	WebEx
July 23, 2021	9:00 – 12:00	TBD
August 16, 2021	9:00 – 12:00	TBD
September 14, 2021	9:00 – 12:00	TBD
October 13, 2021	9:00 – 12:00	TBD
November 16, 2021	9:00 – 12:00	TBD
December 14, 2021	9:00 – 12:00	TBD

Author: Hamad Ahmed

## WebEx Meeting Attendees

Name	Company Name	Sector
Ahmad, Syed	Federal Energy Regulatory Commission	None
Ahmed, Hamad	PJM Interconnection	None
Allen, William	Commonwealth Edison Company	Transmission Owner
Anders, David	PJM Interconnection	None
Baker, Jeff	PJM Connect	None
Baker, Scott	PJM Interconnection	None
Baur, Sean	GlidePath Power Operations LLC	Generation Owner
Beam, George	PPL Elec Utilities Corp dba PPL Utilities (PPL POLR Small C&I)	Transmission Owner
Beban, Madalyn	PJM Interconnection	None

Benchek, Jim	FirstEnergy Corporation	Transmission Owner
Bernabeu, Emanuel	PJM	None
Berner, Aaron	PJM Interconnection	None
Bielak, Donnie	PJM Interconnection	None
Borgatti, Michael	PJM Committee Voting Generic Account	Generation Owner
Borkoski, John	MD Public Service Commission	None
Bowring, Joe	Monitoring Analytics	None
Boyle, Glen	PJM Interconnection	None
Breidenbaugh, Aaron	Rodan Energy Solutions (USA) Inc.	Other Supplier
Brodbeck, John	EDP Renewables North America LLC	Generation Owner
Brophy, Richard	New York State Electric & Gas Corporation	Other Supplier
Bruce, Matthew	MCG Energy Solutions, LLC	None
Bruno, Patrick	PJM Interconnection	None
Buhler, Thomas	PJM Connect	None
Campbell, Bruce	Enerwise Global Technologies, LLC	Other Supplier
Carmean, Gregory	Organization of PJM States, Inc.	None
Chakragiri, Mohan	ENGIE Energy Marketing NA, Inc. (Bluestone)	Other Supplier
Cham, Edrissa	Savion, LLC	None
Chang, Sean	Shell Energy North America (US), L.P.	Other Supplier
Chee, Yee Hong	MCG Energy Solutions	None
Chocarro Aguirrebengoa, Iker	RWE Renewables Americas, LLC	Generation Owner
Cocco, Michael	Old Dominion Electric Cooperative	Electric Distributor
Cox-Arslan, Kathryn	Borrego Solar Systems	None
Croop, Danielle	PJM Interconnection	None
D'Alessandris, Louis	American Transmission Systems, Inc.	Transmission Owner
Davis, David	Strata Solar	None
Davis, Elizabeth	PJM Interconnection	None
Davis, James	Dominion Energy Generation Marketing, Inc.	Generation Owner
Delaney, Liz	Borrego Solar	None
DeLosa, Joseph	New Jersey Board of Public Utilities	None
Denby, Brett	Northern Virginia Electric Cooperative (NOVEC)	Electric Distributor

DeVita, Thomas	PJM Interconnection	None
DiNicola, Laura	firstenergy	Transmission Owner
Domian, Christin	Duquesne Light Company	Transmission Owner
Downs, Jere	PJM Connect	None
Dropkin, Ilyana	PJM Interconnection	None
Dugan, Chuck	East Kentucky Power Cooperative, Inc.	Transmission Owner
Dumitriu, Nicolae	PJM Interconnection	None
Elkins, Rachel	American Transmission Systems, Inc.	Transmission Owner
Ellis, David	Public Service Electric & Gas Company	Transmission Owner
Everngam, Scott	Blue Horseshoe Energy LLC	None
fan, zhenyu	PJM Interconnection	None
Feldman, Brett	Other	None
Filomena, Guy	Customized Energy Solutions, Ltd.	None
Fleisher, Madeline	Dickinson Wright PLLC	None
Foladare, Kenneth	Geenex Solar LLC	Generation Owner
Foley, Sheila	PJM Interconnection	None
Ford, Adrien	Old Dominion Electric Cooperative	Electric Distributor
Frogg, Darrell	PJM Interconnection	None
Fuller, Peter	Autumn Lane Energy Consulting LLC	None
Gahimer, Michael	Indiana Office of Utility Consumer Counselor (IN OUCC)	None
Garnett, Bryan	Duke Energy Ohio, Inc.	Transmission Owner
Gates, Jill	PJM Interconnection	None
Gebolys, Debbie	Other	None
Gilani, Rehan	ConEdison Energy, Inc.	Other Supplier
Glazer, Craig	PJM Interconnection	None
Good, Megan	Pennsylvania Public Utility Commission	None
Greening, Michele	PJM Interconnection	None
Grochowski, Julian	Calpine Energy Services, L.P.	Generation Owner
Hanser, Erik	Michigan Public Service Commission	None
Hartman, Gary	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner
Hasan, Prusha	Advanced Energy Economy	None

Heinle, Frederick	Office of the Peoples Counsel	None
Herel, Suzanne	PJM Interconnection	None
Hoatson, Tom	West Deptford Energy, LLC	Generation Owner
Hohenshilt, Jennifer	Talen Energy Marketing, LLC	Generation Owner
Holstein, Matthew	University of Delaware	None
Horning, Lynn Marie	Customized Energy Solutions, Ltd.	None
Horstmann, John	Dayton Power & Light Company (The)	Transmission Owner
Hsia, Eric	PJM Interconnection	None
Hull, Gerit	American Municipal Power, Inc.	Electric Distributor
Hunter, Benjamin	BSHunter	None
Hyzinski, Tom	gtgghyzinsk	None
Iler, Arthur	Indiana Office of Utility Consumer Counselor	None
Jaffary, Rafi	Dominion Energy Generation Marketing, Inc.	Generation Owner
Jalali, Sasan	Federal Energy Regulatory Commission	None
Janicki, Diane	Boston Energy Trading and Marketing LLC	Other Supplier
Jardot, Gina	NRG Curtailment Solutions, Inc.	Other Supplier
Jett, William	Duke Energy Business Services LLC	Transmission Owner
Jha, Monica	PCI	None
Johnson, Augustus	Dominion Virginia Power (EDC)	Transmission Owner
Johnson, Bethany	PPL Electric Utilities Corp. dba PPL Utilities (TO)	Transmission Owner
Johnson, Carl	Customized Energy Solutions, Ltd.	None
Johnson, Nathaniel	Appalachian Power Company (AEP Generation)	Transmission Owner
Johnston, David	Other	None
Kauffman, Brian	Enel X North America, Inc.	Other Supplier
Kelly, Stephen	Brookfield Renewable Trading and Marketing LP (BSMH)	Other Supplier
Kent, Janessa	Duquesne Light Company	Transmission Owner
Kimmel, David	PJM Interconnection	None
Kirk, Ryan	Appalachian Power Company (AEP Generation)	Transmission Owner
Koehler, Nicolas	Appalachian Power Company (AEP Transmission)	Transmission Owner

Kogut, George	New York Power Authority	Other Supplier
Kopinski, John	ITC Interconnection LLC	Transmission Owner
Kou, Gefei	Dominion Virginia Power	Transmission Owner
Lieberman, Steven	American Municipal Power, Inc.	Electric Distributor
Long, Glenn	PJM Interconnection	None
LOWE, CONNIE	Dominion Virginia Power	Transmission Owner
Mabry, David	McNees Wallace & Nurick LLC	None
Marcino, Angelo	PJM Interconnection	None
Mariam, Yohannes	Office of the People's Counsel for the District of Columbia	None
Martin, Aaron	CMS Energy Resource Management Company	None
martin, Valerie	Federal Energy Regulatory Commission	
mason, julie	Duke Energy Ohio, Inc.	Transmission Owner
Matheson, Eric	Pennsylvania Public Utility Commission	
Midgley, Sharon	Exelon Business Services Company, LLC	Transmission Owner
Morelli, Lisa	PJM Interconnection	None
mousa, Ahmed	Public Service Electric & Gas Company	Transmission Owner
Muhl, Nancy	PJM Interconnection	None
Nadel, Steven	PPL Electric Utilities Corp. dba PPL Utilities (TO)	Transmission Owner
Nix, Emma	Jersey Green Energy LLC	Other Supplier
Norton, Chris	American Municipal Power, Inc.	Electric Distributor
O'Hara, Christopher	PJM	None
Okenfuss, James	Savion, LLC	None
Ondayko, Brock	AEP Energy Partners, Inc. (AEP Gen Resources)	Transmission Owner
Pandya, Nirmal	Hodson GreenDefined Energy	None
Parkison, Sara	University of Delaware	None
Pezalla, William	Old Dominion Electric Cooperative	Electric Distributor
Pieniasek, Marie	NRG Curtailment Solutions, Inc.	Other Supplier
Pilong, Melissa	PJM Interconnection	None
Placide, Scott	Potomac Electric Power Company	Electric Distributor

Poulos, Greg	PJM Committee Voting Generic Account	None
Pratt, Nicholas	PPL Electric Utilities Corp. dba PPL Utilities (TO)	Transmission Owner
Price, Ruth	Delaware Division of the Public Advocate	None
Proconiar, Jason	Buckeye Power, Inc.	Electric Distributor
Purdie, Michael	Dominion Virginia Power	Transmission Owner
Rainey, John	Northern Virginia Electric Cooperative (NOVEC)	Electric Distributor
Rodriguez, Tomas	Organization of PJM States, Inc.	
Rohrbach, John	Wabash Valley Power Association, Inc.	Electric Distributor
Rosenblatt, Alex	Duquesne Light Company	Transmission Owner
Rouland, James	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner
Rumsey, Amanda	PPL Electric Utilities Corp. dba PPL Utilities (TO)	Transmission Owner
Rutigiano, Tom	Natural Resources Defense Council	None
Sailers, Bruce	Duke Energy Ohio, Inc. (EDC)	None
Sasser, Jonathan	Customized Energy Solutions, Ltd.	None
Scarpignato, David	Calpine Energy Services, L.P.	Generation Owner
Schreim, Morris	MD PSC	None
Schuyler, Ken	PJM Interconnection	None
Schweizer, David	PJM Interconnection	None
Seireg, Bahaa	Rockland Electric Company	Transmission Owner
Skumanich, Bill	RTR Energy Solutions LLC	None
Smithman, Emily	NJBPU	None
Sorrels, James	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Stefanowicz, Vincent	PJM Interconnection	None
Stein, Ed	Ohio Edison Company	Electric Distributor
Stern, Alexander	Public Service Electric & Gas Company	Transmission Owner
Suh, Jung	Calpine Energy Solutions, LLC	Other Supplier
Sun, Haibin	Exelon Business Services Company, LLC	Transmission Owner
Svenson, Heather	Public Service Electric & Gas Company	Transmission Owner
Swalwell, Brad	Tangent Energy Solutions, Inc.	Other Supplier

Sweeney, Rory	GT Power Group, LLC	None
Swenson, Kristin	Midcontinent Independent Sys Op, Inc. (CTS)	None
Taborsky, Craig	MD Public Service Commission	None
Taylor, Robert	Commonwealth Edison Company	Transmission Owner
Tekle, Zelalem	Baltimore Gas and Electric Company (TO)	Transmission Owner
Thomas, Sharon	Energy Storage Association	None
Thundiyil, Kevin	Exelon Generation Co., LLC (NEV_XLON)	Generation Owner
Tobia, James	FirstEnergy Services	Transmission Owner
Tribulski, Jennifer	PJM Interconnection	None
Walker, Jacqueline	Duke Energy Business Services LLC	None
Watson, Betty	Affirmed Energy LLC	Other Supplier
Webster, John	IceTec.com, Inc.	Other Supplier
Wehnes, Kathleen	Maryland Department of the Environment	None
Wehr, Christopher	Ohio Edison Company (EDC)	Electric Distributor
White, Brett	Brett White	None
Whitehead, Jeffrey	GT Power Group	None
Wicks, Tonja	Duquesne Light Company	Transmission Owner
Wiley, Amy	Delaware Public Service Commission	None
Wilson, De Andre	Maryland Public Service Commission	None
Wisersky, Megan	Madison Gas & Electric Co.	Other Supplier
Wray, Gizelle	Solar Energy Industries Association (SEIA)	None
Yeaton, Andrea	PJM Interconnection	None
Yoder, Michael	RTO Insider	None
Yoo, Kyungjin	Monitoring Analytics	None
Yu, Joel	Enchanted Rock	None

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