

DER and Inverter-based Resources Subcommittee

WebEx Only

April 29, 2022

9:00 a.m. – 10:30 a.m. ET

Administration (9:00 – 9:15)

1. Scott Baker, chair, opened the meeting and reviewed the agenda.
2. Chris Callaghan, secretary, reviewed the meeting participation guidelines and minutes from the last meeting.
 - a. The minutes for the 2.25.2022 DIRS meeting were approved as posted
3. Scott Baker, chair, reviewed the DIRS work plan.
 - a. Stakeholders requested that the full path to completion for the Hybrids Phase II effort be indicated in the work plan.

Hybrid Resources (9:15 – 10:00)


4. Andrew Levitt, PJM, provided an update on impacted Manuals of the phase one hybrid resources issue and FERC filing (ER22-1420-000 & -001). [Solar-Battery Hybrid Resources Issue Tracking](#)
 - a. Initial draft language of impacted manuals will be discussed at the May DIRS meeting.
5. Andrew Levitt, PJM, led discussions on phase two – other mixed technology facilities (e.g., wind/storage, wind/solar/storage, gas/storage, etc.) and co-located resources with significant interactions.
 - a. Stakeholders will explore solutions at the next meeting.

Order 2222 (10:00 – 10:20)

6. Scott Baker, PJM, discussed next steps and reviewed a future discussion topics list regarding the implementation of the DER Aggregator Participation Model.
 - a. Additional items and notes were added to the future discussion topics list

Wrap-up and Action items (10:20 – 10:30)

7. The facilitation team reviewed action items from the meeting and take 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.
May 31, 2022	9:00 – 3:00	WebEx	May 23, 2022	May 26, 2022
June 23, 2022	9:00 – 4:00	WebEx	June 15, 2022	June 20, 2022

<i>July 20, 2022</i>	9:00 – 4:00	WebEx	July 12, 2022	July 15, 2022
<i>August 30, 2022</i>	9:00 – 4:00	WebEx	August 22, 2022	August 25, 2022
<i>September 22, 2022</i>	9:00 – 3:00	WebEx	September 14, 2022	September 19, 2022
<i>October 21, 2022</i>	9:00 – 12:00	WebEx	October 13, 2022	October 18, 2022
<i>November 28, 2022</i>	9:00 – 12:00	WebEx	November 18, 2022	November 23, 2022
<i>December 15, 2022</i>	1:00 – 4:00	WebEx	December 07, 2022	December 12, 2022

Author: Chris Callaghan

WebEx Meeting Attendance

Last Name	First Name	Company	Sector
Allen	William (Bill)	Commonwealth Edison Company	Transmission Owner
Alva	Christian	Scout Clean Energy LLC	None
Anders	David	PJM Interconnection, LLC	None
Baker	Scott	PJM Interconnection, LLC	None
Baker	Jeff	Duke Energy Ohio, Inc.	Transmission Owner
Barker	Jason	Constellation Energy Generation, LLC	Generation Owner
Beam	George	Talen Energy Marketing, LLC	Generation Owner
Beban	Madalyn	PJM Interconnection, LLC	None
Benckek	Jim	American Transmission Systems, Inc.	Transmission Owner
Benckek	Jim	American Transmission Systems, Inc.	Transmission Owner
Bennett	Stephen	PJM Interconnection, LLC	None
Benson	Dan	Duke Energy Business Services LLC	Transmission Owner
Bhana	Rajesh	Exelon Business Services Company, LLC	Transmission Owner
Bielak	Donnie	PJM Interconnection, LLC	None
Bigelow	Christina	Pine Gate Mid-Atlantic, LLC	Other Supplier
Borkoski	John	Maryland Public Service Commission	None
Borum III	Larry	Illinois Commerce Commission	None
Bowker	Shannon	PJM Interconnection, LLC	None
Bowring	Joe	Monitoring Analytics, LLC	None
Boyle	Glen	PJM Interconnection, LLC	None
Breidenbaugh	Aaron	Rodan Energy Solutions (USA) Inc.	Other Supplier
Bruno	Patrick	PJM Interconnection, LLC	None
Bryson	Michael (Mike)	PJM Interconnection, LLC	None
Bugay	Nicole	PJM Interconnection, LLC	None
Buhler	Thomas	Rockland Electric Company	Transmission Owner
Callaghan	Chris	PJM Interconnection, LLC	None
Callen	Zachary (Zac)	Illinois Commerce Commission	None
Campbell	Bruce	EnergyConnect, Inc.	Other Supplier
Canter	David	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Carmean	Gregory	OPSI	None
Carroll	Rebecca	PJM Interconnection, LLC	None
Cham	Edrissa	Tradewind Energy, Inc.	None
Chang	Sean	Shell Energy North America (US), L.P.	Other Supplier

Chee	Yee Hong	MCG Energy Solutions	None
Chmielewski	Brian	PJM Interconnection, LLC	None
Christopher	Mahila	Public Utilities Commission of Ohio (The)	None
Circelli	Roseanne	Public Service Electric & Gas Company	Transmission Owner
Clifford	Kyle	PECO Energy Company	Transmission Owner
Colaresi	Chandra	Cpower Energy Management	None
Connell	Jason	PJM Interconnection, LLC	None
Connelly	Nancy	Duke Energy Ohio, Inc.	Transmission Owner
Corash	Richard	PSEG Energy Resources & Trade LLC	Other Supplier
Croop	Danielle	PJM Interconnection, LLC	None
Currier	Jeff	Dominion Virginia Power	None
D'Alessandris	Louis	American Transmission Systems, Inc.	Transmission Owner
Davis	James (Jim)	Dominion Energy Generation Marketing, Inc.	Generation Owner
Davis	James (Jim)	Dominion Energy Generation Marketing, Inc.	Generation Owner
Davis	Elizabeth (Becky)	PJM Interconnection, LLC	None
Denby	Brett	NOVEC	None
DeVita	Thomas	PJM Interconnection, LLC	None
DiNicola	Laura	FirstEnergy Corporation	Transmission Owner
Diong	Mamadou	Dominion Virginia Power	None
Disciullo	Nicholas	PJM Interconnection, LLC	None
Dolan	Ryan	Dayton Power & Light Company (The)	Transmission Owner
Domian	Christin	Duquesne Light Company	Transmission Owner
Drom	Richard (Rick)	Eckert Seamans	None
Dugan	Chuck	East Kentucky Power Cooperative, Inc.	Transmission Owner
Dumitriu	Nicolae	PJM Interconnection, LLC	None
Edmonds	Brian	DC Public Service Commission	None
Elkins	Rachel	FirstEnergy Corporation	Transmission Owner
Ellis	David	Public Service Electric & Gas Company	Transmission Owner
Ericson	Christine	Illinois Commerce Commission	None
Esterly	Theresa	PJM Interconnection, LLC	None
Fan	Zhenyu	PJM Interconnection, LLC	None
Fee	George	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Filomena	Guy	Customized Energy Solutions, Ltd.*	None
Filomena	Guy	Customized Energy Solutions, Ltd.*	None
Fink	Sari	American Clean Power Association	None
Fitzpatrick	Brian	PJM Interconnection, LLC	None
Foladare	Kenneth (Ken)	Geenex Solar LLC	Other Supplier
Ford	Adrien	Old Dominion Electric Cooperative	Electric Distributor
Foster Cronin	Denise	East Kentucky Power Cooperative, Inc.	Transmission Owner
Frogg	Darrell	PJM Interconnection, LLC	None
Fuess	Christian	PBF Power Marketing, LLC	Generation Owner
Fuller	Peter	NRG Power Marketing, LLC	Generation Owner
Garnett	Bryan	Duke Energy Ohio, Inc.	Transmission Owner
Gates	Terry	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Gates	Jill	PJM Interconnection, LLC	None
Glatz	Suzanne (Sue)	PJM Interconnection, LLC	None

Glazer	Craig	PJM Interconnection, LLC	None
Gorman	Bradley	American Transmission Systems, Inc.	Transmission Owner
Greening	Michele	PJM Interconnection, LLC	None
Grisolia	Albert	Public Service Electric & Gas Company	Transmission Owner
Gunn	Garan	Public Service Electric & Gas Company	Transmission Owner
Guntle	Vince	American PowerNet Management	End-Use Customer
Haas	Howard	Monitoring Analytics, LLC	None
Hanser	Erik	Michigan Public Service Commission	None
Hart	Ron	Dominion Energy Generation Marketing, Inc.	Generation Owner
Hartman	Gary	Talen Energy Marketing, LLC	Generation Owner
Hartung	Shanna	PJM Interconnection, LLC	None
Hauske	Thomas	PJM Interconnection, LLC	None
Heinle	Frederick (Erik)	Office of the Peoples Counsel for the District of Columbia	End-Use Customer
Helms	Joseph	Rainbow Energy Marketing Corporation	Other Supplier
Herel	Suzanne	PJM Interconnection, LLC	None
Himmelspach	Treasa	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Hoatson	Thomas (Tom)	Riverside Generating, LLC	Generation Owner
Hohenshilt	Jennifer	Talen Energy Marketing, LLC	Generation Owner
Horning	Lynn Marie	Customized Energy Solutions, Ltd.*	None
Horstmann	John	Dayton Power & Light Company (The)	Transmission Owner
Hough	Dennis	The Federal Energy Regulatory Commission	None
Hunter	Benjamin	Board of Public Utilities of NJ	None
Hyzinski	Tom	GT Power Group	None
Hyzinski	Tom	GT Power Group	None
Iler	Arthur (Art)	Indiana Office of Utility Consumer Counsel	End-Use Customer
Jamshidian	Farhad	OSI Digital Grid Solutions	None
Janicki	Diane	Boston Energy Trading & Marketing, LLC	Other Supplier
Jardot	Gina	Essential Power Rock Springs, LLC	Generation Owner
Jett	William (Bill)	Duke Energy Business Services LLC	Transmission Owner
Johnson	Nathaniel	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Johnson	Carl	Customized Energy Solutions, Ltd.*	None
Johnston	David	Indiana Utility Regulatory Commission	None
Joshiyura	Neil	State Corporation Commission Commonwealth of Virginia	None
Kauffman	Brian	Enel X North America, Inc.	Other Supplier
Kelly	Stephen	Brookfield Energy Marketing LP	Other Supplier
Kent	Janessa	Duquesne Light Company	Transmission Owner
King	Matthew	GDS Associates, Inc.	Other Supplier
Kirk	Ryan	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Koehler	Nicolas	AEP Indiana-Michigan Transmission Company, Inc.	Transmission Owner
Kogut	George	New York Power Authority	Other Supplier
Levitt	Andrew	PJM Interconnection, LLC	None
Liang-Nicol	Cecilia	Monongahela Power Company d/b/a Allegheny Power	Transmission Owner
Lieberman	Steven	American Municipal Power, Inc.	Electric Distributor
Lyakhovich	Leonid	Public Service Electric & Gas Company	Transmission Owner
Mabry	David	McNees Wallace & Nurick LLC	None
Mariam	Yohannes	Office of the Peoples Counsel for the District of Columbia	End-Use Customer

Matheson	Douglas (Doug)	Enel X North America, Inc.	Other Supplier
McCombIII	John	PJM Interconnection, LLC	None
McCormick	Katharine	Illinois Commerce Commission	None
McDaniel	John	Baltimore Gas and Electric Company	Transmission Owner
McDewell	Christian	Commonwealth of PA	None
McInerney	Timothy	Commonwealth Edison Company	Transmission Owner
McNeil	Justin	Office of the Attorney General, Kentucky	End-Use Customer
Mekala	Karthik	RWE Renewables Americas, LLC	Generation Owner
Metz	John	University of Delaware	None
Midgley	Sharon	Exelon Business Services Company, LLC	Transmission Owner
Miller	John	Commonwealth Edison Company	Transmission Owner
Mok	Alan	Duke Energy Kentucky, Inc.	Transmission Owner
Montalvan	Ricky	POWER Engineers Inc.	
Mooney	Jeffrey	FirstEnergy Corporation	Transmission Owner
Mroz	David	PJM Interconnection, LLC	None
Muhl	Nancy	PJM Interconnection, LLC	None
Murphy	Shaun	Urban Grid Solar Projects, LLC	Other Supplier
Nareshkumar	Koushy	Potomac Electric Power Company	Electric Distributor
Nichols	Nathaniel	Exelon Business Services Company, LLC	Transmission Owner
Nix	Emma	Gable and Associates	None
Norton	Chris	American Municipal Power, Inc.	Electric Distributor
Nwosu	Nneomma	Guidehouse, Inc.	None
Okenfuss	James	Savion, LLC	None
Olaleye	Michael	PJM Interconnection, LLC	None
Ondayko	Brock	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Passman	Rachel	Jersey Green Energy LLC	Other Supplier
Patel	Keyurbhai (Keyur)	PJM Interconnection, LLC	None
Pawar	Aasawari	First Solar, Inc.	None
Phillips	Darlene	PJM Interconnection, LLC	None
Pilong	Christopher	PJM Interconnection, LLC	None
Polka	Joseph	Duquesne Light Company	Transmission Owner
Poulos	Greg	CAPS	None
Pratt	Nicholas (Nick)	PPL Electric Utilities Corp. dba PPL Utilities	Transmission Owner
Price	Ruth	Division of the Public Advocate of the State of Delaware	End-Use Customer
Rainey	John	Northern Virginia Electric Cooperative	Electric Distributor
Ranaweera	Aruna	Hecate Energy	None
Redmond	Sean	Orange & Rockland Utilities	None
Robinson	Becky	Vista Energy Marketing, L.P.	Other Supplier
Rohrbach	John	Southern Maryland Electric Cooperative, Inc.	Electric Distributor
Rorie	Lezael	Southern Maryland Electric Cooperative, Inc.	Electric Distributor
Rosenblatt	Alex	Duquesne Light Company	Transmission Owner
Rouland	James	PPL Electric Utilities Corp. dba PPL Utilities	Transmission Owner
Roychowdhury	Rajarshi	Dayton Power & Light Company	Transmission Owner
Rumsey	Amanda	PPL Electric Utilities Corp. dba PPL Utilities	Transmission Owner
Rutigliano	Tom	Achieving Equilibrium LLC	None
Rutledge	Craig	AEP Appalachian Transmission Company, Inc.	Transmission Owner

Sasser	Jonathan	Customized Energy Solutions, Ltd.*	None
Scarpignato	David (Scarp)	Calpine Energy Services, L.P.	Generation Owner
Schmitt	David	New Jersey Board of Public Utilities	None
Schroeder	Connie	Virginia Electric & Power Company	Transmission Owner
Schroeder	Connie	Virginia Electric & Power Company	Transmission Owner
Seirig	Bahaa	Con Edison Co. of NY	None
Shields	Jeffrey	PJM Interconnection, LLC	None
Smith	Mark	AEP Energy Partners, Inc.	Transmission Owner
Sorrels	James	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Stanfill	Susan	Pine Gate Mid-Atlantic, LLC	Other Supplier
Stefanowicz	Vincent	PJM Interconnection, LLC	None
Stern	Alexander (Alex)	Public Service Electric & Gas Company	Transmission Owner
Svenson	Heather	Public Service Electric & Gas Company	Transmission Owner
Swalwell	Brad	Tangent Energy Solutions, Inc.	Other Supplier
Swanger	Eric	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Sweeney	Rory	GT Power Group	None
Swigonski	Frank	Advanced Energy Economy, Inc.	None
Thomas	Jack	PJM Interconnection, LLC	None
Tibbetts	Maeve	K & L Gates	None
Tighe	Andrea	ENcome Energy Performance	None
Tyler	Catherine	Monitoring Analytics, LLC	None
Vayda	Brian	Borough of Park Ridge, NJ	Electric Distributor
Walcavich	Colin	National Grid Renewables, LLC	None
Walker	Jacque	Yes Energy, LLC	None
Wehnes	Kathleen	Maryland Public Service Commission	None
Wehr	Christopher	Metropolitan Edison Company	Electric Distributor
Werner	Christopher	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Whitehead	Jeffrey	GT Power Group	None
Wilson	De Andre	Maryland Public Service Commission	None
Xenopoulos	Damon	Brickfield, Burchette, Ritts & Stone, P.C.	None
Yoo	Kyungjin	PJM Interconnection, LLC	None
Zhang	Michael (Mike)	PJM Interconnection, LLC	None