

Markets & Reliability Committees
PJM Conference and Training Center, Audubon, PA / WebEx
December 20, 2023
9:00 a.m. – 9:55 a.m. EPT

Administration

Stu Bresler and David Anders welcomed stakeholders and provided the Anti-trust, Code of Conduct, and Meeting Participation announcements.

Consent Agenda

Items A through E were **approved/endorsed** by acclamation with two objections (one each on items C and E) and one abstention (item C):

- A. Minutes of the November 15, 2023 meeting of the Markets and Reliability Committee.
- B. Conforming revisions to Manual 12: Balancing Operations, Manual 13: Emergency Operations, and Manual 14D: Generator Operational Requirements addressing Renewable Dispatch.
[Issue Tracking: Renewable Dispatch](#)
- C. Proposed revisions to Manual 14B: PJM Region Transmission Planning Process as a part of the periodic review.
- D. Conforming revisions to Manual 21A: Determination of Accredited UCAP Using Effective Load Carrying Capability Analysis addressing Hybrids Phase II Market Participation of Hybrid Resources and other Mixed Technology Facilities.
[Issue Tracking: Solar-Battery Hybrid Resources](#)
- E. Sunset of the Energy Price Formation Senior Task Force (EPFSTF).
[Issue Tracking: Operating Reserve Demand Curve \(ORDC\) & Transmission Constraint Penalty Factors](#)

Endorsements

1. Performance Impact of the Multi-schedule Model on the Market Clearing Engine

Danielle Croop reviewed the main and alternate motion solutions endorsed by the Market Implementation Committee addressing the performance impact of the multi-schedule model on the market clearing engine. Following discussion, the committee **endorsed** the main motion and corresponding Tariff and Operating Agreement revisions in a sector-weighted vote with 3.607 in favor.
[Issue Tracking: Performance Impact of the Multi-Schedule Model on the Market Clearing Engine](#)

2. Regulation Market Design Senior Task Force (RMDSTF)

Danielle Croop reviewed the proposed solution addressing the regulation market design as endorsed by the RMDSTF. Following discussion, the committee **endorsed** the proposed solution and

corresponding Tariff and Operating Agreement revisions by acclamation with no objections and three abstentions.

[Issue Tracking: Regulation Market Design](#)

First Readings

None

Future Agenda Items

No new future agenda items were identified.

Future Meeting Dates and Materials			Materials Due to Secretary	Materials Published
Date	Time	Location		
<i>January 24, 2024</i>	9:00 a.m.	PJM Conference & Training Center and WebEx	January 11, 2024	January 17, 2024
<i>February 22, 2024</i>	9:00 a.m.	PJM Conference & Training Center and WebEx	February 12, 2024	February 15, 2024
<i>March 20, 2024</i>	9:00 a.m.	PJM Conference & Training Center and WebEx	March 8, 2024	March 13, 2024
<i>April 25, 2024</i>	9:00 a.m.	PJM Conference & Training Center and WebEx	April 15, 2024	April 18, 2024
<i>May 22, 2024</i>	9:00 a.m.	PJM Conference & Training Center and WebEx	May 10, 2024	May 15, 2024
<i>June 27, 2024</i>	9:00 a.m.	PJM Conference & Training Center and WebEx	June 17, 2024	June 20, 2024
<i>July 24, 2024</i>	9:00 a.m.	PJM Conference & Training Center and WebEx	July 12, 2024	July 17, 2024
<i>August 21, 2024</i>	9:00 a.m.	PJM Conference & Training Center and WebEx	August 9, 2024	August 14, 2024
<i>September 25, 2024</i>	9:00 a.m.	PJM Conference & Training Center and WebEx	September 13, 2024	September 18, 2024
<i>October 30, 2024</i>	9:00 a.m.	PJM Conference & Training Center and WebEx	October 18, 2024	October 23, 2024
<i>November 20, 2024</i>	9:00 a.m.	PJM Conference & Training Center and WebEx	November 8, 2024	November 13, 2024
<i>December 18, 2024</i>	9:00 a.m.	PJM Conference & Training Center and WebEx	December 6, 2024	December 11, 2024

Author: D. Anders

Meeting Attendance

Chair/Secretary

Last Name	First Name	Company	Sector
Bresler	Stu	PJM Interconnection LLC	Not Applicable
Anders	Dave	PJM Interconnection LLC	Not Applicable

Voting Attendees

Last Name	First Name	Company	Sector
Anderson	Juliet	Constellation Energy Generation, LLC	Generation Owner
Barker	Jason	Vitol Inc.	Generation Owner
Bleiweis	Bruce	DC Energy, LLC	Other Supplier
Brodbeck	John	EDP Renewables North America LLC	Generation Owner
Bruce	Susan	Kimberly-Clark Corporation	Generation Owner
Bruce	Susan	Letterkenny Industrial Development Authority - PA	Electric Distributor
Bruce	Susan	Messer LLC	End-Use Customer
Bruce	Susan	Linde Inc.	End-Use Customer
Bruce	Susan	Wellsboro Electric Company	Electric Distributor
Bruce	Susan	Cleveland-Cliffs Steel LLC	End-Use Customer
Bruce	Susan	Trustees of the University of Pennsylvania	End-Use Customer
Bruce	Susan	Gerdau Ameristeel Energy, Inc.	End-Use Customer
Bruce	Susan	Procter & Gamble Paper Products Company (The)	End-Use Customer
Bruce	Susan	Lehigh Portland Cement Company	End-Use Customer
Bruce	Susan	Air Products & Chemicals, Inc.	End-Use Customer
Canter	David	Appalachian Power Company	Transmission Owner
Chang	Sean	Shell Energy North America (US), L.P.	Other Supplier
Corash	Richard	Public Service Electric and Gas Company	Transmission Owner
Davis	James	Virginia Electric & Power Company	Transmission Owner
Domian	Christin	Duquesne Light Company	Transmission Owner
Dugan	Chuck	East Kentucky Power Cooperative, Inc.	Transmission Owner
Esquivel	Manuel	Enel X North America, Inc.	Other Supplier
Foladare	Kenneth	Geenex Solar LLC	Other Supplier
Garnett	Bryan	Duke Energy Business Services LLC	Transmission Owner
Hoatson	Tom	Rolling Hills Generating, LLC	Generation Owner
Hohenshilt	Jennifer	Talen Energy Marketing, LLC	Generation Owner
Horstmann	John	Dayton Power & Light Company (The)	Transmission Owner
Hyzinski	Thomas	Dynegy Marketing and Trade, LLC	Generation Owner
Hyzinski	Thomas	GenOn Energy Management, LLC	Generation Owner
Hyzinski	Thomas	Carroll County Energy LLC	Generation Owner
Jardot	Gina	NRG Business Marketing LLC	Other Supplier
Johnson	Carl	North Carolina Electric Membership Corporation	Electric Distributor
Johnson	Carl	WPPI Energy	Other Supplier
Johnson	Carl	Town of Williamsport (The)	Electric Distributor
Johnson	Carl	Thurmont Municipal Light Company	Electric Distributor
Johnson	Carl	Old Dominion Electric Cooperative	Electric Distributor
Johnson	Carl	Northern Virginia Electric Cooperative (NOVEC)	Electric Distributor
Johnson	Carl	Michigan Public Power Agency	Electric Distributor
Johnson	Carl	Indiana Municipal Power Agency	Electric Distributor
Johnson	Carl	Illinois Municipal Electric Agency	Electric Distributor
Johnson	Carl	Hagerstown Light Department	Electric Distributor
Johnson	Carl	Energy Cooperative Association of Pennsylvania (The)	Other Supplier
Johnson	Carl	Easton Utilities Commission	Electric Distributor
Johnson	Carl	Delaware Municipal Electric Corporation, Inc.	Electric Distributor
Johnson	Carl	City of Dover, Delaware	Electric Distributor
Johnson	Carl	Central Virginia Electric Cooperative	Electric Distributor
Johnson	Carl	Buckeye Power, Inc.	Electric Distributor
Johnson	Carl	Borough of Mont Alto, Pennsylvania	Electric Distributor
Johnson	Carl	Borough of Chambersburg	Electric Distributor
Johnson	Carl	Blue Ridge Power Agency, Inc.	Electric Distributor
Kelly	Stephen	Brookfield Renewable Trading and Marketing LP	Other Supplier
Kilgallen	Kevin	Avangrid Renewables, LLC	Generation Owner
Mason	Gary	Monongahela Power Company d/b/a Allegheny Power	Transmission Owner

Pakela	Greg	DTE Energy Trading, Inc.	Other Supplier
Poulos	Greg	Delaware Division of the Public Advocate	End-Use Customer
Poulos	Greg	Illinois Citizen Utility Board	End-Use Customer
Poulos	Greg	Indiana Office of Utility Consumer Counselor (IN OUCC)	End-Use Customer
Poulos	Greg	Public Staff - North Carolina Utilities Commission	End-Use Customer
Poulos	Greg	New Jersey Division of Rate Counsel	End-Use Customer
Rettig	Kacie	Rockland Electric Company	Transmission Owner
Scarpignato	David	Calpine Energy Services, L.P.	Generation Owner
Stern	Alexander	Exelon Business Services Company, LLC	Transmission Owner
Swalwell	Bradley	Tangent Energy Solutions, Inc.	Other Supplier
Ushijima	Hiroaki	Elwood Energy, LLC	Generation Owner
Walcavich	Colin	Green River Holdings, LLC	Generation Owner
Whitehead	Jeffrey	Essential Power Rock Springs, LLC	Generation Owner
Whitehead	Jeffrey	Wheelabrator Falls Inc.	Generation Owner
Whitehead	Jeffrey	Parkway Generation Operating LLC	Generation Owner
Yovanovich	Laura	PPL Electric Utilities Corporation d/b/a PPL Utilities	Transmission Owner

Non-Voting Attendees

Last Name	First Name	Company	Sector
Acosta	Raquel	Michigan Public Service Commission	None
Baker	Jeff	Duke Energy Ohio Inc	Transmission Owner
Boyle	Sean	Constellation Energy Generation, LLC	Generation Owner
Breidenbaugh	Aaron	Stones DR, LLC	Other Supplier
Callen	Zachary	Illinois Commerce Commission	None
Campbell	Bruce	Enerwise Global Technologies, LLC	Other Supplier
Carrier	Ronald	Big Lake Consulting Group, LLC	None
Christopher	Mahila	Public Utilities Commission of Ohio	None
Concina	Wendell	Commonwealth Edison Company	Transmission Owner
Corn	Dennis	Wolf Hills Energy, LLC	Generation Owner
Cox	Jason	EQ Energy Advisors, LLC	None
Daley	Liam	Pine Gate Mid-Atlantic, LLC	Generation Owner
Davis	David	Apex Clean Energy Holdings, LLC	None
Dillon	Matthew	UGI Development Company	Generation Owner
Dorko	Keri	Monitoring Analytics	None
Everngam	Scott	Blue Horseshoe Energy LLC	None
Fabiano	Janell	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner
Filomena	Guy	Customized Energy Solutions, Ltd.	None
Fink	Sari	MAREC Action	None
Ford	Adrien	Constellation Energy Generation, LLC	Generation Owner
Foster	Denise	East Kentucky Power Cooperative, Inc.	Transmission Owner
Fuess	Christian	Diamond State Generation Partners, LLC	Generation Owner
Fultz	McClain	PPL Electric Utilities Corp. dba PPL Utilities (LSE)	Transmission Owner
Gates	Terry	Appalachian Power Company	Transmission Owner
Gilani	Rehan	RWE CLEAN ENERGY WHOLESALE SERVICES, INC.	Other Supplier
Glazener	Patrick	Energy Authority, Inc. (The)	Other Supplier
Gordon	Jonathan	Advanced Energy Economy	None
Guntle	Vince	American PowerNet Management, L.P.	End-Use Customer
Hathcock	Jason	Galt Power, Inc. (Albemarle Beach Solar)	Other Supplier
Hastings	David	Long Island Lighting Company dba LIPA	Other Supplier
Heinle	Erik	Dynegy Marketing and Trade, LLC	Generation Owner
Hudis	Gabriella	Gabel Associates	None
Hugee	Jacqui	Virginia Electric & Power Company	Transmission Owner
Hull	Gerit	American Municipal Power, Inc.	Electric Distributor
Hurd	Shawn	Monongahela Power Company d/b/a Allegheny Power	Transmission Owner
Iler	Art	Indiana Office of Utility Consumer Counselor (IN OUCC)	End-Use Customer

Janas	Kim	Illinois Attorney General's Office	None
Janicki	Diane	Boston Energy Trading and Marketing LLC	Other Supplier
Johnston	David	Indiana Utility Regulatory Commission	None
Jones	Scott	Indiana Office of Utility Consumer Counselor (IN OUCC)	End-Use Customer
Kalaskar	Rahul	AES Laurel Mountain, LLC	Generation Owner
Kent	Janessa	Duquesne Light Company	Transmission Owner
Kirk	Steven	NextEra Energy Marketing, LLC	Other Supplier
Klingensmith	Laurel	American Transmission Systems, Inc.	Transmission Owner
Kogut	George	New York Power Authority	Other Supplier
Kozlowski	Brian	Alphataraxia Palladium LLC	Other Supplier
Laios	Takis	Appalachian Power Company (AEP Transmission)	Transmission Owner
Lawson	Ryen	Dominion Virginia Power	Transmission Owner
Leith-Yessian	Devin	RTOinsider	None
Lescano	Amanda	New Jersey Board of Public Utilities	None
Mariam	Yohannes	Office of the People's Counsel for the District of Columbia	End-Use Customer
Matheson	Eric	Non-member	None
Mayers	Sharon	Clean Energy Future - Lordstown, LLC	Generation Owner
McClure	Emily	Illinois Commerce Commission	None
McNeil	Justin	Kentucky Public Service Commission	None
McNicholas	Daniel	Nautilus Power, LLC	Generation Owner
Midgley	Sharon	Exelon Business Services Company, LLC	Transmission Owner
Newman	Sarah	Stone Mattheis Xenopoulos & Brew, PC	None
Nix	Emma	Leeward Asset Management, LLC	Generation Owner
Ondayko	Brock	AEP Energy Partners, Inc. (AEP Gen Resources)	Transmission Owner
Osborn	Eric	EDF Trading North America, LLC	Other Supplier
Osorio Garcia	David	Virginia Electric & Power Company	Transmission Owner
Parikh	Lopa	Orsted Onshore North America, LLC	Generation Owner
Phillips	Amanda	Aces Power Marketing	None
Procuinar	Jason	Buckeye Power, Inc.	Electric Distributor
Rasmussen	Jay	Duke Energy Business Services LLC	Transmission Owner
Richards	Wade	Apex Clean Energy Holdings, LLC	None
Rode	Advait	Michigan Public Service Commission	None
Rumsey	Amanda	PPL Electric Utilities Corp. dba PPL Utilities (TO)	Transmission Owner
Rutledge	Craig	Appalachian Power Company (AEP Generation)	Transmission Owner
Sasser	Jonathan	Customized Energy Solutions, Ltd.	None
Scarpignato	Dominic	Scarp Industries	None
Scheidecker	Paul	Monitoring Analytics	None
Schreim	Morris	MD PSC	None
Selick	Sam	Customized Energy Solutions, Ltd.	None
Sloan	Ben	Organization of PJM States, Inc.	None
Sotkiewicz	Paul	E-Cubed Policy Associates	Noen
Stadelmeyer	Rebecca	Jersey Green Energy LLC	Other Supplier
Stone	Andy	Non-member	None
Storino	Laura	NJ Board of Public Utilities	None
Stuchell	Jeff	American Transmission Systems, Inc.	Transmission Owner
Stupar	Rob	Invenergy Energy Management LLC	Generation Owner
Sun	Haiibn	Exelon Business Services Company, LLC	Transmission Owner
Talebi	Tessa	FERC	None
Teti	Zach	Avangrid Networks, Inc.	Other Supplier
Tubridy	Meg	Rockland Electric Company	Transmission Owner
Tyler	Catherine	Monitoring Analytics	None
Vanderlaan	Bill	Illinois Commerce Commission	None
Vargo	Daniel	Allegheny Electric Cooperative, Inc.	Electric Distributor
Vayda	Brian	Borough of Park Ridge, New Jersey	Electric Distributor
Walcavich	Colin	Archlight Capital	None
Walker	Jennifer	Exelon Business Services Company, LLC	Transmission Owner

Webb	Becky	Exelon Business Services Company, LLC	Transmission Owner
Wilson	James	Wilson Economics	None
Wylie-Chambers	Ericka	Exelon Business Services Company, LLC	Transmission Owner
Wynder	Michael	Altrock LLC	Other Supplier
Yasutake	Sarah	Jersey Green Energy LLC	Other Supplier
York	Denver	East Kentucky Power Cooperative, Inc.	Transmission Owner
Zakaria	Rama	Delorean Power LLC	None
Zemanek	Kevin	Buckeye Power, Inc.	Electric Distributor
Zhou	Ming	DXT Commodities North America Inc.	Other Supplier

PJM Attendees

Last Name	First Name	Company	Sector
Afelumo	Foluso	PJM Interconnection	None
Almonte	Arelis	PJM Interconnection	None
Anders	David	PJM Interconnection	None
Arkatin	Tyler	PJM Interconnection	None
Asthana	Manu	PJM Interconnection	None
Barrett	Emily	PJM Interconnection	None
Belenky	Maria	PJM Interconnection	None
Bernabeu	Emanuel	PJM Interconnection	None
Berner	Aaron	PJM Interconnection	None
Bowker	Shannon	PJM Interconnection	None
Boyle	Glen	PJM Interconnection	None
Bresler	Stu	PJM Interconnection	None
Bruno	Josh	PJM Interconnection	None
Bryson	Michael	PJM Interconnection	None
Buehler	Susan	PJM Interconnection	None
Cao	Roger	PJM Interconnection	None
Carroll	Rebecca	PJM Interconnection	None
Chmielewski	Brian	PJM Interconnection	None
Connell	Jason	PJM Interconnection	None
Connolly	Matthew	PJM Interconnection	None
Coscia	Carl	PJM Interconnection	None
Coyne	Suzanne	PJM Interconnection	None
Croop	Danielle	PJM Interconnection	None
D'Antonio	Phil	PJM Interconnection	None
DiMartino	Denise	PJM Interconnection	None
Drauschak	Lisa	PJM Interconnection	None
Egan	Amanda	PJM Interconnection	None
Esterly	Theresa	PJM Interconnection	None
Fan	Zhenyu	PJM Interconnection	None
Fereshetian	Damon	PJM Interconnection	None
Foley	Sheila	PJM Interconnection	None
Foster	Tom	PJM Interconnection	None
Frogg	Darrell	PJM Interconnection	None
Glazer	Craig	PJM Interconnection	None
Greening	Michele	PJM Interconnection	None
Guignet	Doug	PJM Interconnection	None
Haque	Asim	PJM Interconnection	None
Hauske	David	PJM Interconnection	None
Herel	Suzanne	PJM Interconnection	None
Holter	Natasha	PJM Interconnection	None
Horger	Tim	PJM Interconnection	None
Hsia	Eric	PJM Interconnection	None

Keech	Adam	PJM Interconnection	None
Kenney	Susan	PJM Interconnection	None
Keshavamurthy	Bhavana	PJM Interconnection	None
Kim	Sung	PJM Interconnection	None
Lacek	Mollie	PJM Interconnection	None
Lai	Erin	PJM Interconnection	None
LaRocque	Matthew	PJM Interconnection	None
Lockwood	Dan	PJM Interconnection	None
Lu	Chen	PJM Interconnection	None
Lynch	Jessica	PJM Interconnection	None
Mali	Gizella	PJM Interconnection	None
Marcino	Angelo	PJM Interconnection	None
McElwaine	Kathy	PJM Interconnection	None
McElwee	Steve	PJM Interconnection	None
McGill	Susan	PJM Interconnection	None
McGovern	Jason	PJM Interconnection	None
McLaverty	Megan	PJM Interconnection	None
Morelli	Lisa	PJM Interconnection	None
Oakes	Brian	PJM Interconnection	None
O'Brien	Tom	PJM Interconnection	None
O'Connell	Moira	PJM Interconnection	None
O'Hara	Chris	PJM Interconnection	None
Olaleye	Michael	PJM Interconnection	None
Oskvig	Dean	PJM Board	None
Patel	Anita	PJM Interconnection	None
Petrov	Matt	PJM Interconnection	None
Pilong	Christopher	PJM Interconnection	None
Pilong	Melissa	PJM Interconnection	None
Pincus	Steve	PJM Interconnection	None
Reffner	Brent	PJM Interconnection	None
Salmon	Lisa	PJM Interconnection	None
Scherling	Eric	PJM Interconnection	None
Schuyler	Ken	PJM Interconnection	None
Schwenk	Melissa	PJM Interconnection	None
Seiler	Ken	PJM Interconnection	None
Shields	Jeff	PJM Interconnection	None
Souder	Michelle	PJM Interconnection	None
Souder	Dave	PJM Interconnection	None
Stanisz	Mark	PJM Interconnection	None
Stefanowicz	Vince	PJM Interconnection	None
Swimm	Nora	PJM Interconnection	None
Takahashi	Mark	PJM Board	None
Taylor	Dan	PJM Interconnection	None
Terranova	Chris	PJM Interconnection	None
Tribulski	Jennifer	PJM Interconnection	None
Vinnik	Daniel	PJM Interconnection	None
Waweru	James	PJM Interconnection	None
Wharton	Matthew	PJM Interconnection	None
Zhang	Michael	PJM Interconnection	None