



Markets & Reliability Committee Webex Only July 28, 2021 9:00 a.m. – 10:55 a.m. EPT

Administration (9:00-9:05)

Stu Bresler and Dave Anders welcomed stakeholders and provided the Anti-trust, Code of Conduct, and Meeting Participation announcements. Chen Lu provided an update on PJM's FERC filing made on July 28, 2021 regarding the use of Real Time Values.

Consent Agenda (9:05-9:10)

Items A through F were <u>approved/endorsed</u> by acclamation with one objection (item D) and no abstentions:

- A. Minutes of the June 23, 2021 meeting of the Markets and Reliability Committee (MRC).
- B. Proposed revisions to Manual 13: Emergency Operations to address Conservative Operations and updates to the OE-417 form.
- Conforming revisions to Manual 14A: New Service Request Process to address the new service requests deficiency review requirements.
 Issue Tracking: New Service Requests Deficiency Review Requirements
- D. Conforming revisions to Manual 18: PJM Capacity Market, Manual 20: PJM Resource Adequacy Analysis, Manual 21: Rules and Procedures for Determination of Generating Capability, and 21A: Determination of Accredited UCAP Using Effective Load Carrying Capability Analysis to address the Effective Load Carrying Capability (ELCC) for limited duration resources and intermittent resources.
 - <u>Issue Tracking: Effective Load Carrying Capability for Limited Duration Resources and Intermittent Resources</u>
- E. Proposed changes to Manual 33: Administrative Services for the PJM Interconnection Operating Agreement around the Operating Reserve Demand Curve (ORDC) data in accordance with FERC transparency requirements.
- F. Proposed revisions from the Governing Document Enhancement & Clarification Subcommittee (GDECS) addressing administrative changes and clarifications in the Tariff and Operating Agreement (OA).

Endorsements (9:10-10:00)

1. Non-Firm Transmission Service Preemption (9:10-9:35)

Jeff McLaughlin reviewed proposed revisions to section 14.2 of the Tariff related to preemption of non-firm transmission service. The committee was asked to endorse the proposed solution upon first read.





Following discussion, the committee **endorsed** the proposed Tariff revisions by acclamation with one objection and two abstentions. The Members Committee will be asked to endorse these proposed Tariff revisions on the same day.

2. [Item removed from agenda]

First Readings (9:35-10:55)

3. Uniform Cure Periods (9:35-9:50)

Steve Pincus reviewed a proposed solution to address making cure periods uniform across the Tariff and OA. The committee will be asked to endorse the proposed solution and Tariff and OA revisions at its next meeting.

4. Working Credit Limit Definitions (9:50-10:05)

Jessica Troiano reviewed a proposed solution to address making the definitions of working credit limits uniform across the Tariff. The committee will be asked to endorse the proposed solution and Tariff revisions at its next meeting.

5. PJM Manuals (10:05-10:55)

- A. Eliseo Carrasco reviewed proposed revisions to Manual 03A: Energy Management System (EMS) Model Updates and Quality Assurance (QA) resulting from its periodic cover-to-cover review. The committee will be asked to endorse the revisions at its next meeting.
- B. Emmy Messina reviewed proposed revisions to Manual 6: Financial Transmission Rights resulting from its periodic cover-to-cover review. The committee will be asked to endorse the revisions at its next meeting.
- C. Aaron Baizman reviewed proposed revisions to Manual 11: Energy & Ancillary Services Market Operations addressing Five Minute Long Term Changes and Transparency. The committee will be asked to endorse the revisions at its next meeting. <u>Issue Tracking: Five Minute Dispatch and Pricing</u>
- D. Vijay Shah and Rebecca Stadelmeyer reviewed proposed revisions to Manual 11: Energy & Ancillary Services Market Operations, Manual 18: PJM Capacity Market, and Manual 28: Operating Agreement Accounting to address the implementation of Fast Start Pricing. The committee will be asked to endorse the revisions at its next meeting.
- E. Jason Quevada reviewed proposed revisions to Manual 20: PJM Resource Adequacy Analysis resulting from its periodic cover-to-cover review. The committee will be asked to endorse the revisions at its next meeting.
- F. Rebecca Stadelmeyer reviewed proposed revisions to Manual 28: Operating Agreement Accounting resulting from its periodic cover-to-cover review. The committee will be asked to endorse the revisions at its next meeting.





Future Agenda Items (10:55)

No new future agenda items were identified.

		Future Meeting Dates and Materials	Materials Due to Secretary	Materials Published
Date	Time	Location		
August 25, 2021	9:00 a.m.	WebEx	August 13, 2021	August 18, 2021
September 29, 2021	9:00 a.m.	WebEx	September 17, 2021	September 22, 2021
October 20, 2021	9:00 a.m.	WebEx	October 8, 2021	October 13, 2021
November 17, 2021	9:00 a.m.	WebEx	November 5, 2021	November 10, 2021
December 15, 2021	9:00 a.m.	WebEx	December 3, 2021	December 8, 2021

Author: D. Anders

Chair/Secretary

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

Voting Attendees

Last Name	First Name	Company	Sector
Barker	Jason	Exelon Business Services Company, LLC	Transmission Owner
Benchek	Jim	American Transmission Systems, Inc.	Transmission Owner
Bruce	Susan	Rep'g Air Products & Chemicals, Inc.	End-Use Customer
Bruce	Susan	Rep'g Lehigh Portland Cement Company	End-Use Customer
Bruce	Susan	Rep'g Linde Inc.	End-Use Customer
Bruce	Susan	Rep'g MeadWestvaco Corporation	End-Use Customer
Bruce	Susan	Rep'g Messer LLC	End-Use Customer
Bruce	Susan	Rep'g Wellsboro Electric Company	Electric Distributor
Bruce	Susan	Rep'g Procter & Gamble Paper Products Company (The)	End-Use Customer
Bruce	Susan	Rep'g Kimberly-Clark Corporation	Generation Owner
Bruce	Susan	Rep'g Trustees of the University of Pennsylvania	End-Use Customer
Bruce	Susan	Rep'g Letterkenny Industrial Development Authority - PA	Electric Distributor
Bruce	Susan	Rep'g Gerdau Ameristeel Energy, Inc.	End-Use Customer
Bruce	Susan	Rep'g Cleveland-Cliffs Steel LLC	End-Use Customer
Bruce	Susan	Rep'g Industrial Energy Users-Ohio	Other Supplier
Canter	David	Appalachian Power 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
Fuess	Christian	Rep'g Diamond State Generation Partners, LLC	Generation Owner
Fuess	Christian	Rep'g Kuehne Chemical Company, Inc.	End-Use Customer
Fuess	Christian	Rep'g Icetec.com, Inc.	Other Supplier
Fuess	Christian	Rep'g PBF Power Marketing, LLC	Generation Owner
Fuess	Christian	Rep'g NextPower III US Holdco Inc.	Generation Owner
Garnett	Bryan	Duke Energy Business Services LLC	Transmission Owner
Hoatson	Tom	Riverside Generating Company, L.L.C.	Generation Owner
Hohenshilt	Jennifer	Talen Energy Marketing, LLC	Generation Owner
Horstmann	John	Dayton Power & Light Company (The)	Transmission Owner
Hyzinski	Thomas	Rep'g GenOn Energy Management, LLC	Generation Owner
Hyzinski	Thomas	Rep'g Carroll County Energy LLC	Generation Owner
Hyzinski	Thomas	Rep'g Dynegy Marketing and Trade, LLC	Generation Owner





Islam	Lubaba	Rockland Electric Company	Transmission Owner
Jardot	Gina	NRG Power Marketing, LLC	Generation Owner
Johnson	Carl	Rep'g Easton Utilities Commission	Electric Distributor
Johnson	Carl	Rep'g Old Dominion Electric Cooperative	Electric Distributor
Johnson	Carl	Rep'g Indiana Municipal Power Agency	Electric Distributor
Johnson	Carl	Rep'g North Carolina Electric Membership Corporation	Electric Distributor
Johnson	Carl	Rep'g Michigan Public Power Agency	Electric Distributor
Johnson	Carl	Rep'g Delaware Municipal Electric Corporation, Inc.	Electric Distributor
Johnson	Carl	Rep'g Borough of Mont Alto, Pennsylvania	Electric Distributor
Johnson	Carl	Rep'g Thurmont Municipal Light Company	Electric Distributor
Johnson	Carl	Rep'g Town of Williamsport (The)	Electric Distributor
Johnson	Carl	Rep'g WPPI Energy	Other Supplier
Johnson	Carl	Rep'g Blue Ridge Power Agency, Inc.	Electric Distributor
Johnson	Carl	Rep'g Borough of Chambersburg	Electric Distributor
Johnson	Carl	Rep'g Galt Power, Inc.	Other Supplier
Johnson	Carl	Rep'g Energy Cooperative Association of Pennsylvania (The)	Other Supplier
Johnson	Carl	Rep'g Northern Virginia Electric Cooperative (NOVEC)	Electric Distributor
Johnson	Carl	Rep'g Northern Illinois Municipal Power Agency	Electric Distributor
Johnson	Carl	Rep'g Allegheny Electric Cooperative, Inc.	Electric Distributor
Johnson	Carl	Rep'g Buckeye Power, Inc.	Electric Distributor
Johnson	Carl	Rep'g American Municipal Power, Inc.	Electric Distributor
Johnson	Carl	Rep'g Central Virginia Electric Cooperative	Electric Distributor
Johnson	Carl	Rep'g City of Dover, Delaware	Electric Distributor
Johnson	Carl	Rep'g Hagerstown Light Department	Electric Distributor
Johnson	Carl	Rep'g Illinois Municipal Electric Agency	Electric Distributor
Johnson	Carl	Rep'g North Carolina Municipal Power Agency Number 1	Other Supplier
Keenan	Matthew	Elwood Energy, LLC	Generation Owner
Kelly	Stephen	Brookfield Renewable Trading and Marketing LP	Other Supplier
Lieberman	Steven	American Municipal Power, Inc.	Electric Distributor
Pakela	Greg	DTE Energy Trading, Inc.	Other Supplier
Pelletier	Eveline	H.Q. Energy Services (U.S.), Inc.	Other Supplier
Rooney	Alexa	PPL Electric Utilities Corporation d/b/a PPL Utilities	Transmission Owner
Stern	Alex	Public Service Electric & Gas Company	Transmission Owner
Swalwell	Bradley	Tangent Energy Solutions, Inc.	Other Supplier
White	Brett	Pine Gate Mid-Atlantic, LLC	Other Supplier
Whitehead	Jeffrey	Rep'g Eastern Generation, LLC	Generation Owner
Whitehead	Jeffrey	Rep'g Neptune Regional Transmission System, LLC	Transmission Owner
Whitehead	Jeffrey	Rep'g Wheelabrator Falls Inc.	Generation Owner
Whitehead	Jeffrey	Rep'g Essential Power Rock Springs, LLC	Generation Owner

Non-Voting Attendees

Last Name	First Name	Company	Sector
Anderson	Jared	Platts	None
Berton	Tyler	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Bleiweis	Bruce	DC Energy, LLC	Other Supplier
Borgatti	Michael	Gabel Associates	None
Bowring	Joe	Monitoring Analytics	None
Brady	George	Ohio Valley Electric Corporation	Transmission Owner
Callen	Zachary	Illinois Commerce Commission	None
Chang	Sean	Shell Energy North America (US), L.P.	Other Supplier
Christopher	Mahila	Public Utilities Commission Of Ohio	None
Cocco	Michael	Old Dominion Electric Cooperative	Electric Distributor
Collins	Ryan	Wright Law	None
Conklin	Tyler	Public Utilities Commission Of Ohio	None
Cronin	Denise	East Kentucky Power Cooperative, Inc.	Transmission Owner
DeLosa	Joseph	Delaware Public Service Commission	None
Dillon	Matthew	UGI Development Company	Generation Owner
Elkins	Rachel	Energy Harbor LLC	Generation Owner
Everngam	Scott	Blue Horseshoe Energy	None
Fazio	Danielle	Engelhart CTP (US) LLC	Other Supplier





Feller	John	PPL Electric Utilities Corporation d/b/a PPL Utilities	Transmission Owner
Filomena	Guv	Customized Energy Solutions, Ltd.*	None
Fitch	Neal	NRG Power Marketing, LLC	Generation Owner
Foladare	Kenneth	Geenex Solar LLC	Other Supplier
Gates	Terry	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Gebolys	Debra	Public Utilities Commission Of Ohio	None
Gilani	Rehan	Consolidated Edison Company of New York, Inc.	Transmission Owner
Greiner	Gary	Public Service Electric & Gas Company	Transmission Owner
Guntle	Vince	American PowerNet Management, L.P.	End-Use Customer
Harris	Makenna	Adapt2 Solutions	None
Hastings	David	DHAST Co.	None
Heinle	Frederick	Office of the People's Counsel for the District of Columbia	End-Use Customer
Heisey	Bradley	Tenaska Power Management, LLC	Other Supplier
Horning	Lynn	Customized Energy Solutions, Ltd.*	None
Hudis	Gabriella	Gabel Associates	None
Hugee	Jacqulynn	Dominion Energy Generation Marketing, Inc.	Generation Owner
Hull	Gerit	American Municipal Power, Inc.	Electric Distributor
ller	Arthur	Indiana Office of Utility Consumer Counselor (IN OUCC)	End-Use Customer
Jett	William	Duke Energy Business Services LLC	Transmission Owner
Johnson	Ryan	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Johnston	David	Indiana Utility Regulatory Commission	None
Kilgallen	Kevin	Avangrid Renewables, LLC	Generation Owner
Kothakapu	Rakesh	Illinois Municipal Electric Agency	Electric Distributor
Laios	Takis	AEP Appalachian Transmission Company, Inc.	Transmission Owner
Lawson	Ryen	Dominion Energy Generation Marketing, Inc.	Generation Owner
Little	John	Public Staff - North Carolina Utilities Commission	End-Use Customer
Long	Scott	Allegheny Electric Cooperative, Inc.	Electric Distributor
Mariam	Yohannes	Office of the People's Counsel for the District of Columbia	End-Use Customer
Martin	Valerie	Federal Energy Regulatory Commission	None
McArdle	Brian	NextEra Energy Marketing, LLC	Other Supplier
Midgley	Sharon	Exelon Business Services Company, LLC	Transmission Owner
Mooney	Jeff	Energy Harbor LLC	Generation Owner
Nadel	Steven	PPL Electric Utilities Corporation d/b/a PPL Utilities	Transmission Owner
Nix	Emma	Gabel Associates	None
Ondayko	Brock A.	AEP Energy Partners, Inc.	Transmission Owner
Paff	Tom	Duke Energy Business Services LLC	Transmission Owner
Poulos	Greg	Consumer Advocates of the PJM States	None
Price	Ruth	Delaware Division of the Public Advocate	End-Use Customer
Pungaliya	Rajat	Pine Gate Renewables	None
Roberts	Jackie	West Virginia Consumer Advocate Division	End-Use Customer
Robinson	Becky	Dynegy Marketing and Trade, LLC	Generation Owner
Rodriguez	Tomas	OPSI	None
Rohrbach	John	Southern Maryland Electric Cooperative, Inc.	Electric Distributor
Rohrbach	John	Aces Power Marketing	None None
Rumsey	Amanda	PPL Electric Utilities Corporation d/b/a PPL Utilities	Transmission Owner
Sasser	Jonathan	Customized Energy Solutions, Ltd.*	None
Scarpignato	David	Calpine Energy Services, L.P.	Generation Owner
Schreim	Morris	Maryland Public Services Commission	None
Seireg	Bahaa	Rockland Electric Company	Transmission Owner
Shaikh	Mohammed	Plus Power, LLC	None
Shanker	Roy	H.Q. Energy Services (U.S.), Inc.	Other Supplier
Skumanich	William	RTR Energy Solutions	None
Sotkiewicz	Paul	E-Cubed Policy Advisors	None
Squibb	William	Ohio Valley Electric Corporation	Transmission Owner
Stone	Andy	Gabel Associates	None
Stuchell	Jeff	Energy Harbor LLC	Generation Owner
Sturgeon	John	Duke Energy Business Services LLC	Transmission Owner
		GT Power Group, LLC	None None
Sweeney	Rory Robert	Exelon Business Services Company, LLC	Transmission Owner
Taylor	Amber	Exelon Business Services Company, LLC Exelon Business Services Company, LLC	Transmission Owner Transmission Owner
Thomas		L CAROU DUSINESS SRIVICES COMORNY LLC.	L HAOSHISSION UWNER
Thomas Tibbetts	Maeve	K & L Gates	None





Walker	Jennifer	Exelon Business Services Company, LLC	Transmission Owner
Wharton	Matthew	Guidehouse Inc.	None
Yoder	Michael	RTO Insider	None

PJM Attendees

Last Name	First Name	Company	Sector
Advena	Christopher	PJM Interconnection, LLC	None
Anders	David	PJM Interconnection, LLC	None
Asthana	Manu	PJM Interconnection, LLC	None
Baizman	Aaron	PJM Interconnection, LLC	None
Bautista	Alejandro	PJM Interconnection, LLC	None
Berner	Aaron	PJM Interconnection, LLC	None
Bloczynski	Nigeria	PJM Interconnection, LLC	None
Boyle	Glen	PJM Interconnection, LLC	None
Bresler	Stu	PJM Interconnection, LLC	None
Bryson	Mike	PJM Interconnection, LLC	None
Buehler	Susan	PJM Interconnection, LLC	None
Burlew	Jim	PJM Interconnection, LLC	None
Carrasco	Eliseo	PJM Interconnection, LLC	None
		,	None
Carroll	Rebecca	PJM Interconnection, LLC	
Caven	Onyinye	PJM Interconnection, LLC	None
Connell	Jason	PJM Interconnection, LLC	None
D'Antonio	Phil	PJM Interconnection, LLC	None
Dent	Duane	PJM Interconnection, LLC	None
DiSciullo	Nicholas	PJM Interconnection, LLC	None
Dolan	James	PJM Interconnection, LLC	None
Drauschak	Lisa	PJM Interconnection, LLC	None
Drauschak	Lisa	PJM Interconnection, LLC	None
Egan	Amanda	PJM Interconnection, LLC	None
Fabiano	Janell	PJM Interconnection, LLC	None
Fabiano	Janell	PJM Interconnection, LLC	None
Fahr	Suzie	PJM Interconnection, LLC	None
Fereshetian	Damon	PJM Interconnection, LLC	None
Fitzpatrick	Brian	PJM Interconnection, LLC	None
Foley	Sheila	PJM Interconnection, LLC	None
Glatz	Suzanne	PJM Interconnection, LLC	None
Gluck	Jim	PJM Interconnection, LLC	None
Greening	Michele	PJM Interconnection, LLC	None
Guistwhite	Jeff	PJM Interconnection, LLC	None
Haque	Asim	PJM Interconnection, LLC	None
Heater	Megan	PJM Interconnection, LLC	None
Herman	Michael	PJM Interconnection, LLC	None
Hislop		,	None
	Dave	PJM Interconnection, LLC	
Horger	Tim	PJM Interconnection, LLC	None
Keech	Adam	PJM Interconnection, LLC	None
Lake	Diane	PJM Interconnection, LLC	None
Levitt	Andrew	PJM Interconnection, LLC	None
Lu	Chen	PJM Interconnection, LLC	None
Lynch	Jessica	PJM Interconnection, LLC	None
McGlynn	Paul	PJM Interconnection, LLC	None
McLaughlin	Jeffrey	PJM Interconnection, LLC	None
Messina	Emmy	PJM Interconnection, LLC	None
Militello	Nicole	PJM Interconnection, LLC	None
Muhl	Nancy	PJM Interconnection, LLC	None
O'Brien	Tom	PJM Interconnection, LLC	None
O'Hara	Chris	PJM Interconnection, LLC	None
Oskvig	O.H. Dean	PJM Interconnection, LLC	None
Pacella	Christopher	PJM Interconnection, LLC	None
Phillips	Darlene	PJM Interconnection, LLC	None
Pilong	Chris	PJM Interconnection, LLC	None
Pincus	Steve	PJM Interconnection, LLC	None





Quevada	Jason	PJM Interconnection, LLC	None
Salmon	Lisa	PJM Interconnection, LLC	None
Schmitt	Jeff	PJM Interconnection, LLC	None
Schweizer	David	PJM Interconnection, LLC	None
Seiler	Ken	PJM Interconnection, LLC	None
Shah	Vijay	PJM Interconnection, LLC	None
Shields	Jeffrey	PJM Interconnection, LLC	None
Shoemaker	Jason	PJM Interconnection, LLC	None
Sims	Mark	PJM Interconnection, LLC	None
Snow	Jim	PJM Interconnection, LLC	None
Souder	Michelle	PJM Interconnection, LLC	None
Souder	Rich	PJM Interconnection, LLC	None
Stadelmeyer	Rebecca	PJM Interconnection, LLC	None
Starkov	Stefan	PJM Interconnection, LLC	None
Strella Wahba	Lauren	PJM Interconnection, LLC	None
Swimm	Nora	PJM Interconnection, LLC	None
Takahasi	Mark	PJM Interconnection, LLC	None
Terranova	Christopher	PJM Interconnection, LLC	None
Tribulski	Jen	PJM Interconnection, LLC	None
Troiano	Jessica	PJM Interconnection, LLC	None
Watson	Jeanine	PJM Interconnection, LLC	None
Waweru	James	PJM Interconnection, LLC	None