

Market Implementation Committee: Special Session: Electric Storage Resource Cost Offers

PJM Conference & Training Center, Audubon, PA

March 15, 2019

1:00 p.m. – 3:00 p.m. EPT

[Issue Tracking: Electric Storage Participation FERC Order 841](#)

Administration (1:00-1:05)

1. Ms Janell Fabiano and Ms. Chantal Hendrzak provided announcements; reviewed the Antitrust, Code of Conduct, Public Meetings/Media Participation and the WebEx Participant Identification Requirement

Education (1:05-1:55)

2. **Timing of offers into the Day Ahead and Real Time Markets and a Review of Cost offers**
Ms. Gabby Genuario, PJM, reviewed the timing of entry of cost offers and current Manual 15: Cost Development Guidelines.
3. **Review of ESR participation model and FAQ update**
Ms, Danielle Croop, PJM, reviewed the ESR participation model and an updated FAQ on Order 841 and hybrid resources. Additional questions can be sent to esr@pjm.com
4. **Pumped Storage Costs**
Ms. Catherine Tyler, Monitoring Analytics, presented proposed modifications to pumped storage hydro cost offers.

Working Issues (1:55-2:55)

5. **Development of Cost Offers for Energy Storage Resources**
Ms. Janell Fabiano, PJM, reviewed the [Cost Offer matrix](#) and captured stakeholder feedback.

Action Items and Next Steps (2:55-3:00)

6. Action Items

Ms Fabiano and Ms. Hendrzak reviewed action items and discussed next steps including scheduling another meeting to continue this work.

Future Special Session Meeting

TBD

Author: J.L.Fabiano

Antitrust:

You may not discuss any topics that violate, or that might appear to violate, the antitrust laws including but not limited to agreements between or among competitors regarding prices, bid and offer practices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that might unreasonably restrain competition. If any of these items are discussed the chair will re-direct the conversation. If the conversation still persists, parties will be asked to leave the meeting or the meeting will be adjourned.

Code of Conduct:

As a mandatory condition of attendance at today's meeting, attendees agree to adhere to the PJM Code of Conduct as detailed in PJM Manual M-34 section 4.5, including, but not limited to, participants' responsibilities and rules regarding the dissemination of meeting discussion and materials.

Public Meetings/Media Participation:

Unless otherwise noted, PJM stakeholder meetings are open to the public and to members of the media. Members of the media are asked to announce their attendance at all PJM stakeholder meetings at the beginning of the meeting or at the point they join a meeting already in progress. Members of the Media are reminded that speakers at PJM meetings cannot be quoted without explicit permission from the speaker. PJM Members are reminded that "detailed transcriptional meeting notes" and white board notes from "brainstorming sessions" shall not be disseminated. Stakeholders are also not allowed to create audio, video or online recordings of PJM meetings. PJM may create audio, video or online recordings of stakeholder meetings for internal and training purposes, and your participation at such meetings indicates your consent to the same.

Participant Identification in WebEx:

When logging into the WebEx desktop client, please enter your real first and last name as well as a valid email address. Be sure to select the "call me" option. PJM support staff continuously monitors WebEx connections during stakeholder meetings. Anonymous users or those using false usernames or emails will be dropped from the teleconference.

During a Meeting	During an Acclamation Vote
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>*1</p> <p>To enter the question queue (does not work during a vote)</p> </div> <div style="text-align: center;"> <p>*2</p> <p>To be removed from the question queue</p> </div> </div> <div style="text-align: center; margin-top: 20px;"> <p>*0</p> <p>To signal for PJM support staff assistance</p> </div>	<p>Please log-in to the voting application at voting.pjm.com, so that you can be registered as the active voter prior to the start of the meeting.</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>*7</p> <p>Yes</p> </div> <div style="text-align: center;"> <p>*8</p> <p>No</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>*9</p> <p>Abstain</p> </div> <div style="text-align: center;"> <p>*0</p> <p>To signal for PJM support staff assistance</p> </div> </div>
<p>Asking Question</p> <ul style="list-style-type: none"> • Entering *1 enters you into the question queue, the three dial tones are an auditory indication that you have successfully been placed in the queue. • Questions are taken during the meeting when natural breaks occur and are asked in the order they are received. 	
<p>Linking Teleconference Connection to WebEx</p> <p>To link your teleconference connection (audio presence) to your WebEx presence, please dial *29 and enter your Personal Identification Number. Once you are logged in to the WebEx, this PIN can be found under the "Meeting Info" tab of your WebEx window.</p>	

Join a Meeting

1. Join meeting in the WebEx desktop client
2. Enter name (*First and Last**) and corporate email
3. Under "Select Audio Option" select "Call Me" option from the dropdown menu

**Note: Anonymous users or those using false usernames or emails will be dropped from the teleconference.*

In Person Attendees

Last Name	First Name	Company Name	Sector
Boyle	Glen	PJM Interconnection, LLC	Not Applicable
DeVita	Thomas	PJM Interconnection, LLC	Not Applicable
Fabiano	Janell	PJM Interconnection, LLC	Not Applicable
Foladare	Kenneth	IMG Midstream LLC	Generation Owner
Fuller	Pete	NextEra Energy marketing, LLC	Other Supplier
Genuario	Gabrielle	PJM Interconnection, LLC	Not Applicable
Haas	Howard	Monitoring Analytics, LLC	Not Applicable
Hauske	Thomas	PJM Interconnection, LLC	Not Applicable
Hendrzak	Chantal	PJM Interconnection, LLC	Not Applicable
Levitt	Andrew	PJM Interconnection, LLC	Not Applicable
Marzewski	Skylar	Monitoring Analytics, LLC	Not Applicable
Pilong	Melissa	PJM Interconnection, LLC	Not Applicable
Scarpignato	David	Calpine Energy Services, L.P.	Generation Owner
Tyler	Catherine	Monitoring Analytics	Not Applicable

WebEx Attendees

Last Name	First Name	Company Name	Sector
Borgatti	Michael	Gabel and Associates	Not Applicable
Brodbeck	John	EDP Renewables North America, LLC	Generation Owner
Burwen	Jason	Energy Storage	Not Applicable
Campbell	Bruce	EnergyConnect, Inc.	Other Supplier
Canter	David	Appalachian Power Company	Transmission Owner
D'Alessandris	Lou	FirstEnergy Solutions Corp.	Transmission Owner
Davis	Elizabeth	PJM Interconnection, LLC	Not Applicable
Davis	James	Dominion Energy Marketing, Inc.	Generation Owner
Denby	Brett	Novec	Not Applicable
Dixon	Chad	Customized Energy Solutions	Not Applicable
Feller	John	PPL Electric Utilities Corp. dba PPL Utilities	Transmission Owner
Filomena	Guy	Customized Energy Solutions, Ltd.	Not Applicable
Garnett	Bryan	Duke Energy Business Services	Transmission Owner
Gilani	Rehan	ConEdison Energy, Inc.	Other Supplier
Hastings	David	Market Interconnection LLC	Not Applicable
Herel	Suzanne	PJM Interconnection, LLC	Not Applicable
Hoatson	Tom	Riverside Generating, LLC	Other Supplier
Horning	Lynn	Customized Energy Solutions	Not Applicable
Horstmann	John	Dayton Power & Light Company (The)	Transmission Owner
Hsia	Eric	PJM Interconnection	Not Applicable
Hyzinski	Tom	GT Power Group	Not Applicable
Janicki	Diane	Boston Energy Trading & Marketing, LLC	Generation Owner
Jha	Monica	PCI	Not Applicable
Johnson	Carl	Customized Energy Solutions	Not Applicable
Kelly	Stephen	Brookfield Energy Marketing LP	Other Supplier
Kilgallen	Kevin	Avangrid Renewables, LLC	Generation Owner
Laguardia	Alex	Covanta Energy Group, LLC	Generation Owner
Libbos	Robin	FirstEnergy Solutions Corp.	Transmission Owner
Lopez	Pablo D	New York Independent System Operator	Not Applicable
Mabry	David	McNees Wallace & Nurick LLC	Not Applicable
Matzen ES	Jeff	Dominion Retail, Inc.	Not Applicable
Ondayko	Brock	Appalachian Power Company	Transmission Owner
Phillips	Jennifer	Middle River Power LLC	Not Applicable
Rajan ES	Abhijit	Dominion Resources	Not Applicable
Sasser	Jonathan	Customized Energy Solutions, Ltd.*	Not Applicable
Schneider	Jesse	Grid Strategies LLC	Not Applicable
Singer	Chad	Trane Grid Services, LLC	Other Supplier



Draft Minutes

Smerchanski	Paul	Origis Energy	Not Applicable
Smith	Christen	RTO Insider	Not Applicable
Sun	Haibin	Constellation Energy Services, Inc.	Other Supplier
Sweeney	Rory	GT Power Group	Not Applicable
Walter	Laura	PJM Interconnection, LLC	Not Applicable
Warshel	Kim	PJM Interconnection, LLC	Not Applicable
Watson	Betty	SolarCity	Not Applicable
Wehr	Christopher	Metropolitan Edison Company	Transmission Owner
Whitehead	Jeff	GT Power Group	Not Applicable
Wisersky	Megan	Madison Gas & Electric Co.	Other Supplier