



Distributed Energy Resources Subcommittee PJM Conference and Training Center January 5, 2018 9:00 a.m. – 3:00 p.m. EDT

<u>Distributed Energy Resource (DER)</u> is a generation or electric energy storage resource connected at distribution voltages and/or connected behind a load meter.

#### Administration

- 1. Mr. Baker called the meeting to order and reviewed the agenda.
- 2. Mr. Gledhill reviewed meeting participation guidelines. Attendance was taken in the room and WebEx attendance was taken offline. Minutesfrom the December 15th meeting of the Distributed Energy Resources Subcommittee were reviewed. Attendance will be taken offline from a combination of inperson and WebEx attendees.
- 3. Mr. Baker reviewed the 2018 Work Plan, and discussed how the plan is to keep it up to date and have it reside on the DERS home page so stakeholders can follow progress on different work streams under the group's umbrella.

## Wholesale DER Market Rules

- 4. Andrew Levitt, PJM, reviewed PJM staff's proposal on accounting for W-DER that is co-located behind the customer meter with additional W-DER or wholesale Demand Response. The group discussed the pros, cons and hurdles of measuring, settling and scheduling pieces separately versus as an integrated resource. Study requirements and federal/state jurisdictional issues were also discussed.
- 5. Intro to implications for capacity market participation
  - a. Pete Langbein and Mr. Levitt, PJM, discussed PLC reduction versus PLC sellback. PJM will come back at a later meeting with some specific examples to add clarity.
  - b. Melissa Pilong, PJM, provided education on the status quo of Fuel-Cost Policy Requirements and Cost-Based Offers. Skyler Marzewski, Monitoring Analytics, provided additional education related to Demand Response offers.
- Tom Rutigliano, Icetec, presented an updated proposal on market rules for combined wholesale DER, retail DER, and load response resources. The group requested a detailed example of how the proposal would work in practice.

#### **DER Interconnection Process**

7. Discussion about operational requirements in the WMPA was deferred to a future meeting.

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## Non-wholesale DER Observability

8. Mr. Langbein, PJM, provided an introduction to the topic of non-wholesale DER observability, PJM's interest in this topic, and information about existing efforts by PJM to gain greater situational awareness of non-wholesale DER. PJM will come back with potential changes to procedure at a future meeting.

## Wrap-up and Future Agenda Items

9. Mr. Baker summarized action items and discussed agenda items for the next meeting.

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Future I	vicetiilu	Dates

January 26, 2018 (Education Session) January 31, 2018 March 2, 2018	1:00 p.m. – 3:00 p.m. 9:00 a.m. – 3:00 p.m. 9:00 a.m. – 3:00 p.m.	WebEx PJM Conference & Training Center/ WebEx PJM Conference & Training Center/ WebEx
April 25, 2018	9:00 a.m. – 3:00 p.m.	PJM Conference & Training Center/ WebEx
June 8, 2018 June 29, 2018	9:00 a.m. – 3:00 p.m. 9:00 a.m. – 3:00 p.m.	PJM Conference & Training Center/ WebEx PJM Conference & Training Center/ WebEx
July 30, 2018 August 27, 2018	9:00 a.m. – 3:00 p.m. 9:00 a.m. – 3:00 p.m.	PJM Conference & Training Center/ WebEx PJM Conference & Training Center/ WebEx
October 4, 2018 October 31, 2018 November 30, 2018	9:00 a.m. – 3:00 p.m. 9:00 a.m. – 3:00 p.m. 9:00 a.m. – 3:00 p.m.	PJM Conference & Training Center/ WebEx PJM Conference & Training Center/ WebEx PJM Conference & Training Center/ WebEx
MOVELLINEL 30, 2010	7.00 a.iii. – 3.00 p.iii.	r Jivi Conierence & Training Centen Webla

### Attendance

Attendees	Company	Sector
Scott Baker (Facilitator)	PJM Interconnection, LLC	Not Applicable
Andrew Gledhill (Secretary)	PJM Interconnection, LLC	Not Applicable
Drew Adams	A.F. Mensah, Inc.	Other Supplier
Maria Robinson	Advanced Energy Economy	Not Applicable
Ed Achaab	AEP Energy Partners, Inc.	Other Supplier
Chris Norton	American Municipal Power, Inc.	Electric Distributor
Kristin Rothey	American Municipal Power, Inc.	Electric Distributor
Kent Feliks	Appalachain Power Company	Transmission Owner
Evan Wilcox	Appalachian Power Company	Transmission Owner
Kevin Kilgallen	Avangrid Renewables, LLC	Generation Owner
Barry Trayers	Citigroup Energy, Inc.	Other Supplier
Rehan Gilani	Consolidated Edison Energy, Inc.	Other Supplier
Brian O'Boyle	Consolidated Edison Energy, Inc.	Other Supplier
Brian Wilkie	Consolidated Edison Solutions, Inc	Other Supplier
Bruce Campbell	Cpower	Other Supplier
Guy Filomena	Customized Energy Solutions, Ltd.*	Not Applicable
Carl Johnson	Customized Energy Solutions, Ltd.*	Not Applicable
Jonathan Sasser	Customized Energy Solutions, Ltd.*	Not Applicable

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Peter Cavan Direct Energy Business Marketing, LLC Other Supplier

Marjorie Philips Direct Energy Business, LLC Other Supplier

James Davis Dominion Energy Marketing, Inc. Generation Owner

George Owens Downes Associates, Inc. Other Supplier

Bryan Garnett Duke Energy Ohio, Inc. Transmission Own

Bryan Garnett **Transmission Owner** Jason Harchick **Duquesne Light Company Transmission Owner** John Peoples **Duquesne Light Company Transmission Owner** Alex Rosenblatt **Duquesne Light Company** Transmission Owner Transmission Owner **Duquesne Light Company** Tonja Wicks Tom Rutigliano Earth Networks Other Supplier

Chuck Dugan East Kentucky Power Cooperative, Inc. Transmission Owner Katie Guerry EnerNOC, Inc. Other Supplier

Sharon Midgley Exelon Business Services Company, LLC Transmission Owner Eric Riopko Exelon Generation Co., LLC Generation Owner Jim Benchek FirstEnergy Solutions Corp. Transmission Owner Martin Bolan FirstEnergy Solutions Corp.

Justin PriceFirstEnergy Solutions Corp.Transmission OwnerJon SchneiderFirstEnergy Solutions Corp.Transmission OwnerTom HyzinskiGT Power GroupNot Applicable

John Webster Icetec.com, Inc. Other Supplier
Mike Gahimer IN Office of Utility Consumer Counselor End User Customer

Dave JohnstonIndiana Utility Regulatory CommissionNot ApplicableMatthew McCaffreeItronNot Applicable

Megan WiserskyMadison Gas & Electric CoOther SupplierStacy SherwoodMaryland Public Service CommissionNot Applicable

Alexander Specht Maryland State Government Not Applicable
David Mabry McNees Wallace & Nurick LLC Not Applicable

Ron Slagel MICS Not Applicable Skyler Marzewski Monitoring Analytics Not Applicable Catherine Tyler Monitoring Analytics Not Applicable

Brett Feldman Navigant Consulting, Inc. Not Applicable George Kogut New York Power Authority Other Supplier Amber Williams New York State Electric & Gas Corporation Other Supplier

Robert Beadle

North Carolina Electric Membership Corporation

Brian Kauffman

NRG Curtailment Solutions

Other Supplier

Courtney Lang

NRG Curtailment Solutions

Other Supplier

Office of the Peoples Counsel for the D.C.

End User Customer

Frederick Heinle Office of the Peoples Counsel for the D.C. End User Customer Yohannes Mariam Office of the Peoples Counsel for the D.C. End User Customer

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Bruce Remmel	Ohio Edison Company (ATSI CSP)	Transmission Owner
Adrien Ford	Old Dominion Electric Cooperative	Electric Distributor
Jenjira Knernschield	Old Dominion Electric Cooperative	Electric Distributor
Gregory Carmean	OPSI	Not Applicable
Murty Bhavaraju	PJM Interconnection, LLC	Not Applicable
Rich Brown	PJM Interconnection, LLC	Not Applicable
Joe Ciabattoni	PJM Interconnection, LLC	Not Applicable
Jason Connell	PJM Interconnection, LLC	Not Applicable
Danielle Croop	PJM Interconnection, LLC	Not Applicable
Michael Del Viscio	PJM Interconnection, LLC	Not Applicable
Mary Ellen Driscoll	PJM Interconnection, LLC	Not Applicable
David Egan	PJM Interconnection, LLC	Not Applicable
Eric Endress	PJM Interconnection, LLC	Not Applicable
Andy Ford	PJM Interconnection, LLC	Not Applicable
Gabrielle Genuario	PJM Interconnection, LLC	Not Applicable
Thomas Hauske	PJM Interconnection, LLC	Not Applicable
Chantal Hendrzak	PJM Interconnection, LLC	Not Applicable
Pete Langbein	PJM Interconnection, LLC	Not Applicable
Andrew Levitt	PJM Interconnection, LLC	Not Applicable
Glenn Long	PJM Interconnection, LLC	Not Applicable
Chenchao Lu	PJM Interconnection, LLC	Not Applicable
Joseph Mulhern	PJM Interconnection, LLC	Not Applicable
Masha Nyemko	PJM Interconnection, LLC	Not Applicable
Jack O'Neill	PJM Interconnection, LLC	Not Applicable
Melissa Pilong	PJM Interconnection, LLC	Not Applicable
Steven Pincus	PJM Interconnection, LLC	Not Applicable
Ken Schuyler	PJM Interconnection, LLC	Not Applicable
Henry Thomas	PJM Interconnection, LLC	Not Applicable
Cheryl Mae Velasco	PJM Interconnection, LLC	Not Applicable
Laura Walter	PJM Interconnection, LLC	Not Applicable
Stanley Williams	PJM Interconnection, LLC	Not Applicable
Scott Razze	Potomac Electric Power Company	Electric Distributor
Mike Colby	PPL Electric Utilities Corp. dba PPL Utilities	Transmission Owner
Ricardo Galarza	PSM Consulting	Not Applicable
Tim Fagan	Public Service Electric & Gas Company	Transmission Owner
Rich Marinelli	Public Service Electric & Gas Company	Transmission Owner
Alex Stern	Public Service Electric & Gas Company	Transmission Owner
Harry Uniman	Public Service Electric & Gas Company	Transmission Owner
Betty Watson	SolarCity	Not Applicable
George Beam	Talen Energy Marketing, LLC	Generation Owner

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Jennifer Hohenshilt Brad Swalwell Kenneth Foladare

Cynthia Kinser

Rajaraman Padmanabhan

Robert Burke
Susan Covino
Brian Hamilton
James Wilson
Eric Winkler
Angela Fox

Author: Andrew Gledhill

Talen Energy Marketing, LLC Tangent Energy Solutions, Inc.

Tangibl

Tennessee Department of Agriculture

The Energy Authority

Unknown Unknown

Unknown

Wilson Energy Economics Winkler Energy Consulting Wylan Energy, L.L.C. Generation Owner

Other Supplier Not Applicable

Not Applicable

Other Supplier

Not Applicable

Not Applicable

Not Applicable

Not Applicable

Not Applicable

Not Applicable

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