Regulation Market Issues Senior Task Force PJM Conference and Training Center March 23, 2016 9:30 a.m. – 3:00 p.m. EPT

#### Administration (9:35 a.m.)

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Mr. Anders opened the meeting and reviewed the agenda.

Ms. Volinsky collected attendance, provided the Antitrust and Code of Conduct announcements, and requested endorsement of the February meeting minutes. The February meeting minutes were **approved** without objection or abstention.

Education on Communications Latency (9:50 a.m.)

1. Mr. Hoffman explained communication latency as it relates to signal types and networks.

ISO/RTO Benchmarking Update (10:40 a.m.)

2. Ms. Tacka provided an update on ISO/RTO benchmarking data that showed average Regulation Market clearing price, locational marginal pricing and regulation cost to load.

Reference Guide (11:00 a.m.)

3. Ms. Croop presented the reference guide that illustrates RMISTF design component dependencies.

PJM Regulation Study Update (11:25 a.m.)

4. Mr. Endress provided an update on the PJM Regulation Study data.

RPI Changes Update (2:00 p.m.)

5. Ms. Croop provided an update on the Regulation Performance Impacts changes.

Matrix Discussion (2:15 a.m. - Adjourn)

- 6. Mr. Anders led a review of the suggested options for the RMISTF matrix. Stakeholders provided options and will bring additional options to be discussed at the April meeting. The team seeks to finalize the options development phase by the May meeting.
  - Mr. Rutigliano made a presentation on the options put forth by the Energy Storage Association.
  - Mr. Vaudreuil made a presentation on the options put forth by Mosaic.
  - Mr. Borgatti made a presentation on the options put forth by Beacon Power.
  - Mr. Guo made a presentation on the options put forth by AEP.

#### Future Meeting Dates

April 13, 2016
May 13, 2016
June 22, 2016

9:30 a.m. – 3 p.m. 9:30 a.m. – 3 p.m. 9:30 a.m. – 3 p.m. PJM Conference & Training Center/WebEx PJM Conference & Training Center/WebEx PJM Conference & Training Center/WebEx

### **In-Person Attendees**

Last Name	First Name	Company
Anders	David	PJM Interconnection, LLC
Benner	Scott	PJM Interconnection, LLC
Blair	Tom	Monitoring Analytics
Borgatti	Michael	Gabel and Associates
Boyle	Glen	PJM Interconnection, LLC
Bryson	Mike	PJM Interconnection, LLC
Burlew	Jim	PJM Interconnection, LLC
Сгоор	Danielle	PJM Interconnection, LLC
Endress	Eric	PJM Interconnection, LLC
Fereshetian	Damon	PJM Interconnection, LLC
Foladare	Kenneth	IMG Midstream LLC
Gallagher	William	A.F. Mensah, Inc.
Haas	Howard	Monitoring Analytics, LLC
Hackman	Harry	Primary Power LLC
Hagaman	Derek	GT Power Group
Hoffman	Jeff	PJM Interconnection, LLC
Horstmann	John	Dayton Power & Light Company
Hsia	Eric	PJM Interconnection, LLC
Johnson	Carl	Customized Energy Solutions, Ltd.



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Kogut	George	New York Power Authority
Lowe	Connie	Dominion Virginia Power
Morelli	Lisa	PJM Interconnection, LLC
Oborne Jr.	Steve	NJR Clean Energy Ventures Corporation
O'Connell	Robert	Main Line Electricity Market Consultants
Olaleye	Michael	PJM Interconnection, LLC
Pilong	Chris	PJM Interconnection, LLC
Pratzon	David	GT Power Group
Price	Ruth	Division of the Public Advocate of the State of Delaware
Reed	Paul	Viridity Energy, Inc.
Rutigliano	Tom	Achieving Equilibrium LLC
Sasser	Jonathan	Customized Energy Solutions, Ltd.
Scarpignato	David	Calpine Energy Services, L.P.
Smith	Melissa	PJM Interconnection, LLC
Tacka	Natalie	PJM Interconnection, LLC
Vaudreuil	Greg	Mosaic Power
Velasco	Cheryl Mae	PJM Interconnection, LLC
Volinsky	Sheila	PJM Interconnection, LLC
Weiss	Glenn	PJM Interconnection, LLC
Whitehead	Jeffrey	Direct Energy Business Marketing, LLC

### WebEx/Teleconference Attendees

Last Name	First Name	Company
Ainspan	Malcolm	Energy Curtailment Specialists, Inc.
Azbell	Ryan	Interstate Gas Supply, Inc.



Baker	Scott	PJM Interconnection, LLC
Benetti	Alexander	AES
Berlinski	Mike	Customized Energy Solutions, Ltd.*
Bolan	Martin	FirstEnergy Solutions Corp.
Bonner	Charles	Dominion
Campbell	Bruce	EnergyConnect Ing.
Carmean	Gregory	OPSI
Chocarro	lker	Eon
Coyle	Billy	Dominion
D'Allesandris	Lou	FirstEnergy Solutions Corp.
Davis	Connie	City of Cleveland, DPU, Div of Cleveland Public Power
Deiss	Eva	Mobility House
DeLosa	Joseph	DE Public Service Commission
Dessender	Harry	Customized Energy Solutions, Ltd.
Dugan	Chuck	East Kentucky Power Cooperative, Inc.
Erbrick	Michael	MICS
Esposito	Patti	Transcanada Power Marketing Ltd.
Fan	Zhenyu	PJM Interconnection, LLC
Filomena	Guy	Customized Energy Solutions, Ltd.*
Fitch	Neil	NRG
Greening	Michele	Talen Energy Marketing, LLC
Griffiths	Dan	Consumer Advocates of PJM
		States
Guo	Jau-Jia	Appalachian Power Company
Hastings	David	
	1	PJM Interconnection, LLC



Hebert	Christopher	Beacon Power, LLC
Hoatson	Tom	Riverside Generating, LLC
Hugee	Jacqulynn	PJM Interconnection, LLC
Jacob	Jince	NextEra Energy Power Marketing LLC
Kingston	Amber	North Carolina Electric Membership Corporation
Kumaraswamy	Kiran	AES Energy Storage, Inc.
Lacy	Catharine	Dominion Virginia Power
Liang-Nicol	Cecilia	Monongahela Power Company d/b/a/ Allegheny Power
Libbos	Robin	FirstEnergy Solutions Corp.
Lyser	Shelly	Coned
Ма	Alex	Invenergy, LLC
Mabry	David	McNees Wallace & Nurick LLC
Marton	David	FirstEnergy Solutions Corp.
McDonnell	Devon	Toshiba
Midgley	Sharon	Exelon
Mohnhaupt	Michael	Other
North	Phillip	Dayton Power & Light Company
Ondayko	Brock	Appalachian Power Company
Patten	Kevin	Appalachian Power Company
Price	Dann	Constellation NewEnergy, Inc.
Rajan	Abhijit	Dominion
Rehberg	Eric	Armada Power
Remmel	Bruce	FirstEnergy
Russo	Michael	IMM
Schmatz	Peter	PSEG
Scoglietti	Barbara	Tangent Energy Solutions, Inc.



Seibel	August	Roundtop Energy LLC
Vaudreuil	Greg	Mosaic Power
Wang	Tingting	Appalachian Power Company
Wheeler	John	Fermata Energy
Xenopolous	Damon	SMXB Law
Zilliox	Skylar	RES America Developments, Inc.

Author: Sheila Volinsky