

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Reactive Supply Compensation in Markets Operated by Regional Transmission Organizations and Independent System Operators      Docket No. AD16-17-000

SUPPLEMENTAL NOTICE OF WORKSHOP

(June 22, 2016)

As announced in the Notice of Workshop issued on March 17, 2016, and the Supplemental Notice of Workshop issued on May 19, 2016, in the above-captioned proceeding,<sup>1</sup> Federal Energy Regulatory Commission (Commission) staff will convene a workshop on June 30, 2016, from 12:00 p.m. (EDT) to 4:00 p.m. (EDT) in the Commission Meeting Room at 888 First Street, NE, Washington, DC 20426. The workshop will be open to the public, and all interested parties are invited to attend and participate. The workshop will be led by Commission staff, and may be attended by one or more Commissioners.

The purpose of the workshop is to discuss compensation for Reactive Supply and Voltage Control (Reactive Supply) within the Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs). Specifically, the workshop will explore the types of costs incurred by generators for providing Reactive Supply capability and service; whether those costs are being recovered solely as compensation for Reactive Supply or whether recovery is also through compensation for other services; and different methods by which generators receive compensation for Reactive Supply (e.g., Commission-approved revenue requirements, market-wide rates, etc.). The workshop will also explore potential adjustments in compensation methods based on changes in Reactive Supply capability and potential mechanisms to prevent overcompensation for Reactive Supply.

Attached to this supplemental notice is an agenda for the workshop, including Reactive Supply compensation topics to be considered for discussion at the workshop.

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<sup>1</sup> Reactive Supply Compensation in Markets Operated by Regional Transmission Organizations and Independent System Operators, Docket No. AD16-17-000 (Mar. 17, 2016) (Notice of Workshop); Reactive Supply Compensation in Markets Operated by Regional Transmission Organizations and Independent System Operators, Docket No. AD16-17-000 (May 19, 2016) (Supplemental Notice of Workshop).

Questions that speakers should be prepared to discuss are grouped by topic. This notice includes the list of panelists for each of the three topic areas.

Discussions at the workshop may involve issues raised in proceedings that are pending before the Commission. These proceedings include, but are not limited to:

ISO New England Inc.	Docket Nos. ER16-946-001, ER16-1789-000
Garrison Energy Center, LLC	Docket No. ER15-2735-000
Newark Energy Center, LLC	Docket Nos. ER15-1706-001, EL15-97-000
Scrubgrass Generating Company, L.P.	Docket Nos. ER15-2254-000, ER15-2254-001
CPV Shore, LLC	Docket Nos. ER15-2589-000, ER15-2589-001, EL16-4-000, EL16-4-001
C.P. Crane LLC	Docket Nos. ER16-259-000, ER16-332-000, EL16-21-000
GenOn Energy Management, LLC	Docket Nos. ER15-2571-000, ER15-2572-000, ER15-2573-000
NRG Wholesale Generation LP	Docket Nos. ER16-413-000, ER04-1164-001, EL16-28-000
Talen Energy Marketing, LLC	Docket Nos. ER16-277-000, ER16-277-001, ER16-277-002, ER16-277-003, EL16-44-000, EL16-44-001, ER08-1462-001, EL16-32-000, ER16-1456-000
Constellation Power Source Generation, LLC	Docket Nos. ER16-746-001, EL16-57-000
New Covert Generating Company, LLC	Docket No. ER16-1226-000
Panda Liberty LLC	Docket No. ER16-1256-001
Roundtop Energy LLC	Docket Nos. ER16-1004-000, EL16-51-000
Beaver Dam Energy LLC	Docket Nos. ER16-1032-000, EL16-51-000
FirstEnergy Solutions Corp.	Docket Nos. ER15-1510-000, ER15-1510-001
Duke Energy Indiana, Inc.	Docket Nos. ER16-200-000, ER16-201-000, ER16-200-002
Wabash Valley Power Association, Inc.	Docket Nos. ER16-435-001, ER16-444-001
Consumers Energy Company	Docket Nos. ER16-1058-000, EL16-56-000
MidAmerican Energy Company	Docket Nos. ER16-1062-000, EL16-59-000
Indiana Municipal Power Agency	Docket No. EL16-14-000
BIF III Holtwood LLC	Docket No. ER16-1530-000
Seward Generation, LLC	Docket No. ER16-1344-000
Northampton Generating Company, L.P.	Docket Nos. ER13-1431-001, EL16-65-000
Entergy Louisiana, LLC	Docket No. ER16-1832-000
LWP Lessee, LLC	Docket No. ER16-1923-000

Midcontinent Independent System Operator, Inc.	Docket No. EL16-61-000
NRG Power Midwest, LP	Docket Nos. ER16-1443-000; EL16-72-000
Panda Patriot LLC	Docket No. ER16-1958-000
Reactive Power Requirements for Non-Synchronous Generation	Docket No. RM16-1-000
Midwest Generation, LLC	Docket No. EL16-66-000

This workshop will be transcribed and webcast. Transcripts of the workshop will be available for a fee from Ace-Federal Reporters, Inc. at (202) 347-3700. A free webcast of this event will be available through [www.ferc.gov](http://www.ferc.gov). Anyone with internet access who wants to view this event can do so by navigating to the Calendar of Events at [www.ferc.gov](http://www.ferc.gov) and locating this event in the Calendar. The event will contain a link to its webcast. The Capitol Connection provides technical support for webcasts and offers the option of listening to the workshop via phone-bridge for a fee. If you have any questions, visit [www.CapitolConnection.org](http://www.CapitolConnection.org) or call (703) 993-3100. Those interested in attending the workshop or viewing the webcast are encouraged to register at <https://www.ferc.gov/whats-new/registration/06-30-16-form.asp>.

Commission workshops are accessible under section 508 of the Rehabilitation Act of 1973. For accessibility accommodations, please send an email to [accessibility@ferc.gov](mailto:accessibility@ferc.gov), call (866) 208-3372 (toll free) or (202) 208-8659 (TTY), or send a FAX to (202) 208-2106 with the required accommodations.

Those who wish to file written comments may do so by July 28, 2016. The Commission strongly encourages electronic filing. Please file comments using the Commission's eFiling system at <http://www.ferc.gov/docs-filing/efiling.asp>. For assistance, please contact FERC Online Support at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov), (866) 208-3676 (toll free), or (202) 502-8659 (TTY). In lieu of electronic filing, please send a paper copy to: Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426. The first page of any filing should include docket number AD16-17-000.

All comments will be placed in the Commission's public files and will be available for review at the Commission in the Public Reference Room or may be viewed on the Commission's website at [www.ferc.gov](http://www.ferc.gov) using the eLibrary link. Enter AD16-17-000 in the docket number field to access documents. For assistance, please contact FERC Online Support.

For more information about this workshop, please contact:

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Kimberly D. Bose,  
Secretary.

**Reactive Supply Compensation in Markets Operated by Regional Transmission  
Organizations and Independent System Operators Workshop**  
**Docket No. AD16-17-000**  
**June 30, 2016, Washington, DC**

**Agenda**

- 1. Introduction and Background** **12:00 p.m. to 12:15 p.m.**<sup>1</sup>
- 1.1 Introduction of Commission staff
  - 1.2 Workshop procedures
  - 1.3 Brief overview of Commission precedent on Reactive Supply compensation
- 2. Costs Incurred by Synchronous Generators for Reactive Supply** **12:15 p.m. to 1:15 p.m.**
- 2.1 What costs do synchronous generators incur to install and maintain Reactive Supply capability?
  - 2.2 Is the equipment required for synchronous generators to maintain Reactive Supply capability the same as that required to produce and deliver real power, or must additional costs be incurred to provide Reactive Supply capability?
  - 2.3 Would synchronous generators be designed or operated differently were it not for the Reactive Supply capability requirements of their respective Interconnection Agreements or Reactive Supply reliability requirements?
  - 2.4 What costs do synchronous generators incur in real-time to provide Reactive Supply service?
  - 2.5 How are the costs required for synchronous generators to maintain Reactive Supply capability and to provide Reactive Supply service recovered?

**Panelists:**

- Dennis Bethel, Bethel Electric Rate Consulting, LLC
- Brook Knodel, Mott MacDonald
- Robert O’Connell, Main Line Electricity Market Consultants, LLC, on behalf of Panda Power Funds
- Jason Sine, PSEG Services Corporation

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<sup>1</sup> All times are eastern daylight time.

**3. Costs Incurred by Non-Synchronous Generators for Reactive Supply 1:15 p.m. to 2:15 p.m.**

- 3.1 What costs do non-synchronous generators incur to install and maintain Reactive Supply capability?
- 3.2 Is the equipment required for non-synchronous generators to maintain Reactive Supply capability the same as that required to produce and deliver real power, or must additional costs be incurred to provide Reactive Supply capability?
- 3.3 Would non-synchronous generators be designed or operated differently were it not for the Reactive Supply capability requirements of their respective Interconnection Agreements or Reactive Supply reliability requirements?
- 3.4 What costs do non-synchronous generators incur in real-time to provide Reactive Supply service?
- 3.5 How are the costs required for non-synchronous generators to maintain Reactive Supply capability and to provide Reactive Supply service recovered?

**Panelists:**

- Ravi Bantu, RES America Developments Inc.
- Mason Emmett, NextEra Energy, Inc.
- Omar Martino, EDF Renewable Energy
- Nicholas Miller, GE Energy Consulting
- Robert Nelson, Siemens Wind Power

**4. Compensation Methods for Reactive Supply in Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs) 2:15 p.m. to 3:55 p.m.**

- 4.1 How does each RTO and ISO currently compensate for Reactive Supply capability and Reactive Supply service?
- 4.2 Is compensation for Reactive Supply capability and Reactive Supply service in RTOs and ISOs commensurate with the associated costs?
- 4.3 How do the RTOs and ISOs monitor the availability and amount of Reactive Supply capability, and is availability and amount of Reactive Supply capability and Reactive Supply service linked to compensation?
- 4.4 How could RTOs and ISOs compensate for Reactive Supply based on the actual provision of Reactive Supply service?
- 4.5 Are there compensation mechanisms other than those currently in place that would be more commensurate with costs?
- 4.6 Should real power capacity compensation mechanisms (i.e., centralized capacity markets and other capacity constructs in RTOs/ISOs) account for reactive power capital cost compensation, and, if so, how?
- 4.7 Should Reactive Supply compensation be adjusted to account for changes in

Reactive Supply capability (e.g., capability that has degraded or increased), and, if so, how? Should a degradation threshold be considered?

**Panelists:**

- Joe Bowering, Monitoring Analytics, LLC
- Michael DeSocio, New York Independent System Operator, Inc.
- Keith Johnson, California Independent System Operator Corporation
- Pallas LeeVanSchaick, Potomac Economics
- Neil Levy, King & Spalding LLP, on behalf of the Electric Power Supply Association
- Alan McBride, ISO New England Inc.
- Robert A. Weishaar, Jr., McNees Wallace & Nurick LLC, on behalf of the PJM Industrial Customer Coalition and the Coalition of MISO Transmission Customers
- Stan Williams, PJM Interconnection, L.L.C.

**6. Closing Comments and Next Steps**

**3:55 p.m. to 4:00 p.m.**