



Monitoring
Analytics

**Activities of the
Market Monitoring Unit
2014**

Independent Market Monitor for PJM

November 23, 2015

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Preface

This report is posted pursuant to Section VI.C of Attachment M to the PJM Open Access Transmission Tariff (the “PJM Market Monitoring Plan” or “Plan”), which directs the Market Monitoring Unit (“Market Monitor,” also known as the “MMU,” Independent Market Monitor for PJM” or “IMM”) “to prepare a detailed public annual report about the Market Monitoring Unit’s activities, subject to protection of confidential, proprietary, and commercially sensitive information and the protection of the confidentiality of ongoing investigations and monitoring activities.”¹

Monitoring Analytics, LLC serves as the Independent Market Monitor for PJM.² PJM is a regional transmission organization (RTO) that is responsible for ensuring the reliability of the electric power supply system in 13 states and the District of Columbia. The MMU is responsible for promoting a robust, competitive and nondiscriminatory electric power market in PJM by implementing the PJM Market Monitoring Plan.

The FERC assigns three core functions to MMUs: reporting, monitoring and market design.³ These functions are interrelated and overlap. The PJM Market Monitoring Plan establishes these functions, providing that the MMU is responsible for monitoring: compliance with the PJM Market Rules; actual or potential design flaws in the PJM Market Rules; structural problems in the PJM Markets that may inhibit a robust and competitive market; the actual or potential exercise of market power or violation of the market rules by a Market Participant; PJM’s implementation of the PJM Market Rules or operation of the PJM Markets; and such matters as are necessary to prepare reports.⁴

The MMU performs its reporting function primarily by issuing and filing annual and quarterly state of the market reports, and reports on market issues. The MMU also issues reports on specific topics in depth. The MMU regularly issues reports on RPM auctions. In other reports, the MMU responds to the needs of FERC, state regulators, or other regulatory authorities, in order to assist policy development, decision making in regulatory proceedings, and in support of investigations.

¹ PJM Open Access Transmission Tariff (OATT) Attachment M § VI.C.

² See 144 FERC ¶ 61,238 (2013).

³ 18 CFR § 35.28(g)(3)(ii); see also *Wholesale Competition in Regions with Organized Electric Markets*, Order No. 719, FERC Stats. & Regs. ¶31,281 (2008) (“Order No. 719”), *order on reh’g*, Order No. 719-A, FERC Stats. & Regs. ¶31,292 (2009), *reh’g denied*, Order No. 719-B, 129 FERC ¶ 61,252 (2009).

⁴ OATT Attachment M § IV; 18 CFR § 1c.2.

To perform its monitoring function, the MMU screens and monitors the conduct of Market Participants under the MMU's broad purview to monitor, investigate, evaluate and report on the PJM Markets.⁵ The MMU has direct, confidential access to the FERC.⁶ The MMU may also refer matters to the attention of state commissions.⁷

The MMU monitors market behavior for violations of FERC Market Rules.⁸ The MMU will investigate and refer "Market Violations," which refers to any of "a tariff violation, violation of a Commission-approved order, rule or regulation, market manipulation, or inappropriate dispatch that creates substantial concerns regarding unnecessary market inefficiencies..."⁹ ¹⁰ The MMU also monitors PJM for compliance with the rules, in addition to market participants.¹¹

Another important component of the monitoring function is the review of inputs to mitigation. The actual or potential exercise of market power is addressed in part through *ex ante* mitigation rules incorporated in PJM's market clearing software for the energy

⁵ OATT Attachment M § IV.

⁶ OATT Attachment M § IV.K.3.

⁷ OATT Attachment M § IV.H.

⁸ OATT Attachment M § II(d)&(q) ("FERC Market Rules" mean the market behavior rules and the prohibition against electric energy market manipulation codified by the Commission in its Rules and Regulations at 18 CFR §§ 1c.2 and 35.37, respectively; the Commission-approved PJM Market Rules and any related proscriptions or any successor rules that the Commission from time to time may issue, approve or otherwise establish... "PJM Market Rules" mean the rules, standards, procedures, and practices of the PJM Markets set forth in the PJM Tariff, the PJM Operating Agreement, the PJM Reliability Assurance Agreement, the PJM Consolidated Transmission Owners Agreement, the PJM Manuals, the PJM Regional Practices Document, the PJM-Midwest Independent Transmission System Operator Joint Operating Agreement or any other document setting forth market rules.")

⁹ The FERC defines manipulation as engaging "in any act, practice, or course of business that operates or would operate as a fraud or deceit upon any entity." 18 CFR § 1c.2(a)(3). Manipulation may involve behavior that is consistent with the letter of the rules, but violates their spirit. An example is market behavior that is economically meaningless, such as equal and opposite transactions, which may entitle the transacting party to a benefit associated with volume. Unlike market power or rule violations, manipulation must be intentional. The MMU must build its case, including an inference of intent, on the basis of market data.

¹⁰ OATT Attachment M § II(h-1).

¹¹ OATT Attachment M § IV.C.

market, the capacity market and the regulation market. If a market participant fails the TPS test in any of these markets its offer is set to the lower of its price based or cost based offer. This prevents the exercise of market power and ensures competitive pricing, provided that the cost based offer accurately reflects short run marginal cost. Cost based offers for the energy market and the regulation market are based on incremental costs as defined in the PJM Cost Development Guidelines (PJM Manual 15).¹²

In order to perform its role in PJM market design, the MMU evaluates existing and proposed PJM Market Rules and the design of the PJM Markets.¹³ The MMU initiates and proposes changes to the design of such markets or the PJM Market Rules in stakeholder or regulatory proceedings.¹⁴ In support of this function, the MMU engages in discussions with stakeholders, State Commissions, PJM Management, and the PJM Board; participates in PJM stakeholder meetings or working groups regarding market design matters; publishes proposals, reports or studies on such market design issues; and makes filings with the Commission on market design issues.¹⁵ The MMU also recommends changes to the PJM Market Rules to the staff of the Commission’s Office of Energy Market Regulation, State Commissions, and the PJM Board.¹⁶ The MMU may provide in its annual, quarterly and other reports “recommendations regarding any matter within its purview.”¹⁷

The MMU posts market data, public reports, presentations and market messages on the Monitoring Analytics web page at: <http://www.monitoringanalytics.com>.

Monitoring

Market Surveillance

The MMU analyzes and monitors all the PJM markets including the Day-Ahead Energy Market, the Real-Time Energy Market, the RPM Base Residual Auctions and Incremental Auctions, the Regulation Market, the Synchronized Reserve Market, the Day-Ahead Scheduling Reserve Market and the Annual, Monthly, Long Term and Balance of Planning Period Auction Markets in Financial Transmission Rights (FTRs). The ongoing

¹² See OATT Attachment M–Appendix § II.A.

¹³ OATT Attachment M § IV.D.

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ OATT Attachment M § VI.A.

market analysis and monitoring forms the basis for all MMU activities. The MMU monitors participant development of inputs to prospective mitigation, including Avoidable Cost Rates and net revenues in RPM; unit-specific offers under the Minimum Offer Price Rule; and cost offers and parameter limited schedules in the energy markets, including eligibility for Frequently Mitigated Unit (FMU) adders. In the course of this monitoring, the MMU provides feedback to participants and engages in discussions about the appropriateness of costs and cost levels. The MMU applies the FTR forfeiture rule, a retroactive mitigation measure, the results of which are reviewed by PJM prior to billing PJM members. The MMU monitors compliance with the must offer rule in RPM. The MMU monitors compliance with the must offer rule for capacity resources in the Day-Ahead Energy Market. The MMU monitors costs included in black start service rates. The MMU reviews proposed deactivations to identify potential market power issues. The MMU prepares monthly notifications to PJM generation owners regarding the status of Frequently Mitigated Units per Schedule 1, Section 6.4.2 of the PJM Operating Agreement.

Market Participant Discussions

The PJM Market Monitoring Plan provides that, in addition to informing Commission staff, the MMU may “Engage in discussions regarding issues relating to the PJM Market Rules or FERC Market Rules in order to understand such issues and to attempt to resolve informally such issues or other issues.”¹⁸ In fulfilling this role in 2014, the MMU monitored participant behavior and discussed relevant matters with FERC staff and with market participants. In addition, the MMU received and investigated confidential complaints. The provision of additional details on these issues is governed by confidentiality rules.

A confidential complaint can reveal flaws in existing rules or procedures. The MMU received confidential complaints and when appropriate publicly proposed rule modifications while maintaining market participant confidentiality.

In addition to discussing notices and/or referrals on a confidential basis regarding the activities in the markets, the MMU engaged in numerous discussions with Market Participants in 2014 about issues related to participant behavior in the PJM markets.

Communications with Regulators

The MMU provides information to regulators, subject to compliance with applicable rules protecting confidentiality. In 2014, the MMU engaged in the following activities:

- Communicated with FERC staff regarding current issues.

¹⁸ OATT Attachment M, § IV.J.1.

- Provided data in response to requests from the FERC’s Office of Enforcement.
- Attended meetings and conference calls with state regulators, state consumer advocates, industrial customer coalitions, Midwest ISO and the Organization of PJM States, Inc. (OPSI) to answer questions and discuss a range of topics including monitoring, capacity markets and the operation of PJM markets.

Reporting¹⁹

Reports and Analyses

The *2013 State of the Market Report for PJM*, published on March 13, 2014, the *2014 Quarterly State of the Market Report for PJM: January through March* (May 15), the *2014 Quarterly State of the Market Report for PJM: January through June* (August 14) and the *2014 Quarterly State of the Market Report for PJM: January through September* (November 13), fulfilled both the tariff reporting requirements and the criteria listed in the Commission policy by providing a comprehensive analysis of the markets within PJM and an assessment of the competitiveness of each market.²⁰ The reports also provided recommendations regarding retention and enhancement of market rules.

The MMU also issued the following reports in 2014:

- Analysis of the 2016/2017 RPM Base Residual Auction (April 18).
- The 2017/2018 RPM Base Residual Auction Sensitivity Analyses (July 10).
- Brattle CONE Combustion Turbine Revenue Requirements Review for Monitoring Analytics, LLC (July 25).
- Balancing Operating Reserve Charges (August 25).
- The 2017/2018 RPM Base Residual Auction Sensitivity Analyses Revised (August 26).
- Analysis of the 2017/2018 RPM Base Residual Auction (October 6).
- IMM Proposal re PJM’s Capacity Performance Proposal (October 28).
- Ohio Congestion Report (July 31).

The MMU issued the following Market Messages in 2014:

- Generation Capacity Resources in PJM Region Subject to RPM Must Offer Obligation for 2014/2015, 2015/2016 and 2016/2017 Delivery Years (February 24).
- Press Release - 2013 State of the Market Report for PJM (March 13).
- Members Committee Letter – 2013 State of the Market Report for PJM (March 13).
- IMM Notice of Disclosure of Confidential Information Pursuant to OATT Attachment M Appendix I.D (April 4).

¹⁹ Public reports by the MMU are posted at <<http://www.monitoringanalytics.com>>.

²⁰ OATT Attachment M § VII.A

- Generation Capacity Resources in PJM Region Subject to RPM Must Offer Obligation for 2015/2016, 2016/2017 and 2017/2018 Delivery Years (May 9).
- Press Release - 2014 Quarterly State of the Market Report for PJM: January through March (May 15).
- Members Committee Letter – 2014 Quarterly State of the Market Report for PJM: January through March (May 15).
- IMM Notification to PJM Members of Disclosure of Confidential Information Pursuant to OATT Attachment M - Appendix I.D (June 10).
- Generation Capacity Resources in PJM Region Subject to RPM Must Offer Obligation for 2015/2016, 2016/2017 and 2017/2018 Delivery Years (July 11).
- PJM/IMM Statement on Interchange Scheduling (July 29).
- Press Release - 2014 Quarterly State of the Market Report for PJM: January through June (August 14).
- Members Committee Letter – 2014 Quarterly State of the Market Report for PJM: January through June (August 14).
- Generation Capacity Resources in PJM Region Subject to RPM Must Offer Obligation for 2015/2016, 2016/2017 and 2017/2018 Delivery Years (August 29).
- Capacity Performance Product Assumptions (September 15).
- Invitation to Register for MIRA Training Webinar (October 10).
- Generation Capacity Resources in PJM Region Subject to RPM Must Offer Obligation for 2015/2016, 2016/2017, and 2017/2018 Delivery Years (December 12).

Industry Briefings

As part of its reporting role, the MMU provided briefings and presentations to industry groups and the Federal Energy Regulatory Commission (FERC). The MMU shared the results of its analyses, experience and knowledge regarding competitive markets, market monitoring and market power mitigation.

During 2014, the MMU made the following presentations at regulatory and industry events:

- Participated in FERC Office of Enforcement meetings for market monitors;
- Participated in meetings with FERC staff, the Organization of PJM States, Inc. (OPSI) and state commission staffs.
- Keynote speaker – Electricity Bar Association Conference, Houston, TX (January 30)
- “Market Impacts of Extreme Weather Events,” OPSI Spring Meeting, Washington, D.C. (April 9).
- “Seams,” OPSI Spring Meeting, Washington, D.C. (April 9).
- “2013 Year in Review,” PJM Annual Meeting of Members, Cambridge, Maryland (May 13).
- “PJM Organized Markets – How Successful?” The Changing Regulatory World: Taking Stock of the Past 10 Years While Looking to the Future, Thirty – Second National Regulatory Conference, Williamsburg, VA (May 15-16). Annual Meeting of Market Monitors (June 3-4).

- “Market Reforms,” EPSA, Washington, D.C. (June 5).
- “ISOs and RTOs: Knowing Your Tariff and ISO/RTO Rules, etc.,” ACI Energy Trading Conference, Panelist, Houston, TX (June 5).
- “PJM State of the Market,” Ancillary Services and Market Dynamics, EUCI, Philadelphia, PA, (June 25).
- “How Should Demand Side Ancillary Services Participate in the A/S/ Markets?” Ancillary Services & Market Dynamics, EUCI, Philadelphia, PA, (June 25).
- “Are FTR Auctions Proceeds Commensurate with the Settlement Value and Risk of Awarded FTRS?” Financial Transmission and Congestion Revenue Rights, EUCI, (July 30).
- FERC Technical Conference: “Price Formation in Energy and Ancillary Services Markets Operated by Regional Transmission Organizations and Independent System Operators,” Federal Energy Regulatory Commission in Docket No. AD14-14-000, Washington, D.C., (September 8).
- “Shortfalls in Generation Capacity Auctions Implications for the Future of Central Capacity Markets,” Northeast Energy Summit, Boston, MA (September 18).
- “Risk Hedging vs. Manipulation – A Deeper Discussion on FERC Enforcement,” Platts the 7th Annual Nodal Trader, New York, New York (October 9).
- “Improving Generator Performance,” OPSI Annual Meeting, Chicago, IL (October 13-14).
- “RPM What Changes are proposed this year?” OPSI Annual Meeting, Chicago, IL (October 13-14).
- “Market Monitoring Advisory Committee,” OPSI Annual Meeting, Chicago, IL (October 13-14).
- “Brief Overview of Winter 2014: The Effects of the Polar Vortex on Markets, Consumers, and Demand Response,” National Energy Marketers Conference, Baltimore, Maryland (October 22-23).
- “Regulators, Wholesalers, Retailers, Consumers, DR and Technology,” National Energy Marketers Conference, Baltimore, Maryland (October 22-23).
- FERC Technical Conference: “Price Formation in Energy and Ancillary Services Markets Operated by Regional Transmission Organizations and Independent System Operators,” Federal Energy Regulatory Commission in Docket No. AD14-14-000, Washington, D.C., (December 9, October 28, September 8).
- “Effective Governance Structures of the IMM function in RTOs,” CRRI, Rutgers Business School, Newark, NJ (November 21).
- “Market Design Issues in PJM,” RESA Conference, West Palm Beach, Florida (December 9).

Market Design

Attachment M, Section IV.D provides “if the Market Monitoring Unit detects a design flaw or other problem with the PJM Markets, the Market Monitoring Unit may initiate and propose, through the appropriate stakeholder processes, changes to the design of such market. In support of this function, the Market Monitoring Unit may engage in

discussions with stakeholders, State Commissions, PJM Management, or the PJM Board; participate in PJM stakeholder meetings or working groups regarding market design matters; publish proposals, reports or studies on such market design issues; and make filings with the Commission on market design issues.”²¹ In FERC Order No. 719 and its order on compliance for PJM, the Commission has emphasized this MMU core function.²²

As an example of the MMU’s work on market design, the MMU has worked from 2012 through the present to improve the design of the PJM Regulation Market. The MMU worked extensively with PJM staff in 2012 to improve the design of the Regulation Market consistent with requirements specified in FERC Order 755. This effort resulted in a number of significant changes in the Regulation Market design. While the revised market design continues to include the incorrect definition of opportunity cost, overall the changes, as proposed by PJM to the FERC and supported by the MMU, represented significant improvements. On October 1, 2012, PJM implemented Performance Based Regulation, to comply with FERC Order No. 755. The MMU provided supportive filings. On November 16, 2012, the FERC modified the PJM market design that was introduced on October 1, 2012. Due to these modifications by the FERC, the present market design,

²¹ OATT Attachment M § IV.D.

²² See Order No. 719 at P 357 (“[W]e do expect the MMU to advise the Commission, the RTO or ISO, and other interested entities of its views regarding any needed rule and tariff changes. Likewise, in the event an RTO or ISO files for a proposed tariff change with which the MMU disagrees, we expect the RTO or ISO to inform the Commission of that disagreement, although not necessarily to include a written proposal with its filing.”), codified at 18 C.F.R. § 35.28 (g)(3)(ii)(A) (“The Market Monitoring Unit must perform the following core functions: (A) Evaluate existing and proposed market rules, tariff provisions and market design elements and recommend proposed rule and tariff changes to the Commission-Approved independent system operator or regional transmission organizations, to the Commission’s Office of Energy Market Regulation staff and to other interested entities such as state commissions and market participants”). In its order of December 18, 2009, on PJM’s filing in compliance with Order No. 719, the Commission required additional changes to ensure that the PJM Market Monitoring Plan fully conforms to Order No. 719’s requirements concerning the role of MMUs in market design. 125 FERC ¶61,250 at P 113 (2009) (“PJM’s OATT fails to specify the MMU’s responsibility for evaluating existing and proposed market rules, tariff provisions and market design elements, and for recommending proposed rule and tariff changes to PJM, the Commission’s Office of Energy Market Regulation and to other interested entities (i.e., state commissions and market participants). Attachment M, section IV.C, in this regard, provides only that, if the MMU “detects a design flaw or other problem with the PJM Markets,” it may initiate and propose changes to such market design. This language, however, is limited to “design” issues relating to existing provisions and thus does not address the full scope of the core MMU function addressed by the Commission in Order No. 719”).

as jointly proposed by PJM and the MMU, has not been fully implemented. In the absence of a consistent implementation of the marginal benefit factor in optimization, pricing and settlement, the current market design is flawed. On February 5, 2013, the MMU filed with the FERC to have the outstanding market design issues resolved. The flawed design elements were retained in the final order. The MMU tracked and reported on the resulting performance of Regulation Market in 2014.

FERC Proceedings

In 2014, the MMU addressed market design issues on the following topics in proceedings at the FERC:

- **Capacity Markets Technical Conference (AD13-7-000)**. Comments of the Independent Market Monitor for PJM (January 9).
- **Limits to Limited DR (ER14-504-000)**. Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM (January 9).
- **Limits to Capacity Imports (ER14-503-000, -001)**. Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM (January 9). Comments of the Independent Market Monitor for PJM (March 10).
- **FirstEnergy Complaint re FTR Underfunding (EL13-47-001)**. Answer [to J. Aron] and Motion for Leave to Answer of the Independent Market Monitor for PJM (January 16).
- **NRG/EME Merger (EC14-14)**. Comments of the Independent Market Monitor for PJM (January 2). Errata to Comments of the Independent Market Monitor for PJM (January 7). Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM (January 21).
- **IMM Complaint re Must Offer and Offer Cap for DR (EL14-20-000)**. Complaint and Motion to Consolidate of the Independent Market Monitor for PJM (January 28).
- **PJM Offer Cap Waiver (ER14-1145-000)**. Comments of the Independent Market Monitor for PJM (January 29). Report on PJM Energy Market Offers, February 11 to March 31, 2014 (April 30).
- **FE Complaint re DR Post EPSA (EL14-55-000)**. Comments of the Independent Market Monitor for PJM (October 22).
- **UTC Transactions (ER13-1654-001, -002)**. Comments of the Independent Market Monitor for PJM (February 6).
- **Make-Whole Waiver (ER14-1144-000)**. Motion for Extension of Compliance Deadline of the Independent Market Monitor for PJM (March 12). Informational Filing re Waiver to Permit Make-Whole Payments Docket No. ER14-1144-000 Period Analyzed: January 28, 2014 (March 26).
- **Improved DR Operations. (ER14-822-001, -002)**. Comments of the Independent Market Monitor for PJM (March 25). Comment of the Independent Market Monitor for PJM (June 23). Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM (July 25).

- **Invenergy Waiver Request (ER14-1475-000)**. Comments of the Independent Market Monitor for PJM (March 26).
- **Recoupment of Losses-Related Refunds from Financial Marketers (EL08-14-000)**. Motion for Leave to Answer and Answer of the Independent Market Monitor for PJM (March 28). Brief of the Independent Market Monitor for PJM (April 8). IMM Errata to April 7th Brief (April 24). Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM (May 28).
- **RPM Reforms (ER14-1461-000)**. Comments of the Independent Market Monitor for PJM (April 1). Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM (April 30).
- **FE Petition re Net Revenues (EL14-36-000)**. Protest of the Independent Market Monitor for PJM (April 18). Answer of the Independent Market Monitor for PJM (April 25).
- **DC Energy re Virtual IBTs (EL12-0-000, -001)**. Protest of the Independent Market Monitor for PJM (May 16).
- **Duke Energy Gas Costs Waiver (EL14-45-000)**. Comments of the Independent Market Monitor for PJM (May 27). Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM (July 11).
- **ODEC Gas Costs Waiver (ER14-2242-000)**. Motion for Extension of the Independent Market Monitor for PJM (June 27). Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM (June 27). Comments of the Independent Market Monitor for PJM (July 28). Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM (September 5).
- **CPV Maryland re CfDs (ER14-2106-000)**. Protest of the Independent Market Monitor for PJM (June 27).
- **CPV Shore re SOCA (ER14-2105-000)**. Protest of the Independent Market Monitor for PJM (June 27).
- **Exelon/PHI Merger (EC14-96-000)**. Comments of the Independent Market Monitor for PJM (July 21). Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM (September 4).
- **Price Responsive Demand (ER11-4628-000)**. Report of the Independent Market Monitor for PJM (July 22).
- **MISO SRR Service (EL13-76-000, ER13-1962-000, -001)**. Request for Rehearing, or, in the Alternative, Motion for Clarification (August 21).
- **PPL Asset Sale to Talen (EC14-112-000)**. Comments of the Independent Market Monitor for PJM (September 15).
- **FERC Technical Conference Investigation of Price Formation Issues (AD14-14-000)**. Technical Conference Participation (September 8). Technical Conference Participation (October 28). Technical Conference Participation (December 9).
- **Dynegy Acquisition of Duke/ECP Assets (EC14-140-000, -141-000)**. Motion for Consolidation and Motion to Extend Comment date of the Independent Market Monitor for PJM (September 24). (Comments of the Independent Market Monitor for PJM (November 10). IMM Answer and Motion for Leave to Answer (December 9).

- **PJM Complaint re FMUs Adders (EL14-95-000, ER14-2705-000).** Comments of the Independent Market Monitor for PJM (September 16).
- **PJM Triennial Review (ER14-2940-000).** Comments of the Independent Market Monitor for PJM (October 16).
- **PJM/Duke JOA (ER15-29-000).** Comments of the Independent Market Monitor for PJM (ER15-29).

State Proceedings

In 2014, the MMU addressed the following market topics in proceedings at state public utility commissions, in response to requests from state public utility commissions or at hearings at state legislatures:

Exelon/PHI Merger

- The Public Service Commission of the District of Columbia regarding the Merger of Exelon Corporation, Pepco Holdings, Inc., Potomac Electric Power Company, LLC and New Special Purpose Entity, LLC, Formal Case No. 1119, (November 3).
- The State of New Jersey Board of Public Utilities regarding the Merger of Exelon Corporation and Pepco Holdings, Inc., Docket No. EM14060581, (November 14).
- The State of Maryland Public Service Commission regarding the Merger of Exelon Corporation and Pepco Holdings, Inc., Case No. 9361, (November 25).
- The Public Service Commission of the State of Delaware regarding the Matter of the Application of Delmarva Power & Light Company, Exelon Corporation, Pepco Holdings, Inc., Purple Acquisition Corporation, Exelon Energy Delivery Company, LLC and New Special Purpose Entity for Approvals Under the Provisions of 26 Del.C. §§ 215 and 1016 (Filed June 18, 2014), Docket No. 14-193, (November 25).

FirstEnergy/AEP Request for Subsidies

- The Public Service Commission of Ohio regarding the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company for Authority to Provide a Standard Service Offer Pursuant to R.C. § 4928.143 in the Form of an Electric Security Plan, Case No. 14-1297-EL-SSO. (December 22).
- The Public Service Commission of Ohio regarding the Matter of the Application of Seeking Approval of Ohio Power Company's Proposal to Enter into an Affiliate Power Purchase Agreement , etc., Case No. 14-1693-EL-RDR (October 10).

PPL/Talen Transaction

- Pennsylvania Public Utilities Commission, Joint Application of PPL Interstate Energy Company and PPL Electric Utilities Corporation for All of the Necessary Authority, Approvals, and Certificates of Public Convenience (1) for the Transfer of PPL Corporation's Ownership Interests in PPL Interstate Energy Company to Talen Energy Corporation, etc., Case No. A-2014-2435752 et al. (July 30).

Recommendations Regarding PJM Market Rules

During 2014, the MMU presented information, analysis and recommendations to PJM Committees.²³

Cap Review Senior Task Force - CRSTF

- MMU Proposal on Cost-Based Offer Caps (July 28).

Capacity Senior Task Force - CSTF

The CSTF voted to sunset the committee after their September 18 meeting.

- Draft package 9 (January 17).
- Summary of Results: IMM CONE CT Compared to Brattle (July 9).
- VRR Curves (August 8).

Enhanced Liaison Committee – Capacity Performance

- Comments of the Independent Market Monitor on PJM's Capacity Performance Proposal and IMM Proposal (September 17).
- PJM/IMM Cost Benefit Analysis (October 23).

Energy Market Uplift Senior Task Force - EMUSTF

- Discussion of design component reviewing the definitions for the individual design components. (January 23)
- Discussion of proposed IMM package. (March 4).
- MMU EMUSTF Phase 1: Solution Details (March 8).
- Operating Reserves Educational Session (June 11).
- MMU EMUSTF Phase 2: Solution Details (July 1).
- Energy Uplift Allocation Proposal (July 1).
- Phase 2 Proposals (August 13).

Finance Committee - FC

- Monitoring Analytics Audited Financials for 2013 (March 26).
- Monitoring Analytics Preliminary Budget for 2015 (August 13)
- Monitoring Analytics Proposed Budget for 2015 (September 17).

FTR Task Force - FTRSTF

The MMU presented positions on topics including the allocation of balancing congestion and the MMU's eight point plan including the elimination of portfolio netting, the addition of an underfunding component to counter flow FTRs and a seasonal/quarterly FTR market.

²³ OATT Attachment M § IV.D.

- FTRSTF Education (July 16).
- FTRSTF FTR Funding (July 16).
- FTR and Congestion Discussion (August 4).
- FTR/ARR Senior Task Force Draft Charter (August 27).
- ARR/FTR Process Draft Issue Charge (August 27).
- ARR/FTR Draft Problem Statement (August 27).
- FTR Underfunding Issues and Education (September 17).
- FTR Issues (October 2).
- FTR Counter Flow Proposal (November 11).
- FTR Netting Example (November 25).

Gas Electric Senior Task Force - GESTF

The GESTF was put on hiatus after the MRC approved a problem statement on Gas Fired Unit Commitment Coordination and assigned the work to the OC.

- Participated in committee discussions concerning gas-fired generation issues in PJM Markets, day-ahead, market timing adjustments and bid flexibility, fuel firming, gas balancing charges, electric and natural gas coordination. (February 19).

Members Committee - MC

- Special SOM Review (March 27).

Members Committee Webinar - MC Webinar

- Market Monitor Report (January 27).
- Market Monitor Report (February 24).
- Market Monitor Report (April 21).
- Market Monitor Report (June 23).
- Market Monitor Report (August 19).
- Market Monitor Report (September 15).
- Market Monitor Report (October 27).
- Market Monitor Report (November 17).

Market Implementation Committee - MIC

- Black Start Revenue Requirement Estimate (July 7).
- IMM Problem Statement: Payments to Tier 1 Synchronized Reserves when Non-Synchronized Reserve Price is Great than Zero (October 8).
- Tier 1 Problem Statement Summary (October 8).
- Member Information Reporting Application (October 8).
- Issue Charge – Payments to tier 1 synchronized reserves when the non-synchronized reserve price is greater than zero (November 7).
- Problem Statement - Payments to tier 1 synchronized reserves when the non-synchronized reserve price is greater than zero (November 7).

MIC-BRA Sensitivity Update

- 2017/2018 RPM BRA Sensitivity Analysis (September 3).

MIC – Energy/Reserve Pricing and Interchange Volatility (ERPIV)

The ERPIV subgroup of the MIC was charged with examining the rules regarding reserve targets, uses and shortage pricing, as well as the rules and incentives to interchange transaction scheduling. The group was asked to determine whether enhancements can be made to better capture PJM operator actions in the market clearing prices, and to improve system and price stability.

- Energy Reserve Pricing and Interchange Volatility Proposal (October 3).

MIC – Frequently Mitigated Unit (FMU) & RPM Supply Curve Transparency Meeting

The FMU Adder subgroup of the MIC was charged with examining the rules governing the use of Frequently Mitigated Units and to determine whether the use of cost based FMU adders were still needed in light of the current capacity market construct, or if targeted alternatives for FMU units should be developed.

- FMU Statistics through 2013 (January 27).
- The IMM presented a combined MMU and PJM proposal (April 2).

MIC- FTR Forfeiture

- FTR Education. The IMM explained the basics of FTRs to stakeholders. (January 28).

MIC-Up to Congestion

- The IMM presented a UTC review and recommendations. (April 10).

System Restoration Strategy Task Force - SRSTF

- MMU Black Start Revenue Requirement Forecast (May 2).
- MMU Positions on proposed Minor Compensation Changes for Black Start Units (May 2).
- Estimated Black Start Fuel Storage Costs (May 16).

Other Activities

Seams Coordination PJM/MISO Joint Common Markets Initiative - PJM/MISO JCM

Participated in the PJM/MISO Joint and Common Market Initiative (PJM/MISO JCM), a joint stakeholder group formed to address market issues at the PJM and MISO border.

- Presented information on congestion in interface pricing (November 8).

- The MMU participated in discussions concerning overcharging of congestion in interface prices with MISO, PJM, and the MISO IMM. (January 24, March 21).

OPSI Advisory Committee

The OPSI Advisory Committee is established pursuant to Section III.G of Attachment M of the OATT, which provides:

“There shall be an OPSI Advisory Committee comprised of five (5) representatives appointed by the Organization of PJM States, Inc. The OPSI Advisory Committee shall meet with the Market Monitoring Unit on a regular basis and as otherwise necessary to receive and discuss information relevant to this Plan. In addition to the specific responsibilities regarding budget and termination set forth in Sections III.E and III.F, the OPSI Advisory Committee may provide advice to the Commission, Market Monitor, the PJM Board, stakeholder committees, and stakeholder working groups regarding any matter concerning the Market Monitor, Market Monitoring Unit or Market Monitoring Plan. Any formal advice shall be in writing and, subject to confidentiality provisions, shall be made publicly available.”

In 2014, the Market Monitor met with the OPSI Advisory Committee on Tuesday, October 8, 2014.

Market Monitoring Unit Advisory Committee

The Market Monitoring Unit Advisory Committee (“MMUAC”) is established pursuant to Section III.H of Attachment M of the OATT, which provides:

“There shall be an MMU Advisory Committee, chaired by the Market Monitor that is open to all stakeholders and representatives of Authorized Government Agencies. The MMU Advisory Committee shall act as a liaison between stakeholders and the MMU and shall provide advice from time to time on matters relevant to the MMU's responsibilities under this Plan. The MMU Advisory Committee shall have no authority to direct, supervise, review, or otherwise interfere with the functions of the MMU under this Plan, nor any authority to terminate or propose to terminate the Market Monitor.”

The MMUAC succeeded the PJM Market Monitoring Advisory Committee (“MMAC”).

The Market Monitor convened a meeting of the MMUAC on December 12, 2014. In addition to requesting comments from stakeholders concerning the IMM's implementation of the PJM Market Monitoring Plan, the IMM provided an overview of (i) the rules for information disclosure, (ii) the IMM's role in merger proceedings, (iii) the IMM's approach to analyzing mergers and (iv) the IMM's concerns about the adequacy of the cost development guidelines.