

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

FirstEnergy Solutions Corporation	)	
	)	Docket No. EL14-36-000
	)	

**PROTEST OF THE INDEPENDENT MARKET MONITOR FOR PJM**

Pursuant to Rule 211 of the Commission’s Rules and Regulations,<sup>1</sup> Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM (“Market Monitor”),<sup>2</sup> submits this protest to the petition for declaratory order filed by FirstEnergy Solutions Corporation (“FirstEnergy”) on April 7, 2014 (“Petition”). FirstEnergy asks the Commission to determine (at 1) “that [the OATT] requires a generator’s Market Seller Offer Cap in RPM to reflect the unit’s cost-based energy offers in the determination of net Projected PJM Market Revenues.” FirstEnergy’s argument on the plain reading of the tariff is incorrect. FirstEnergy’s argument on why its proposal to increase Market Seller Offer Caps in RPM is consistent with a competitive market outcome is incorrect, and would, if accepted, result in noncompetitive outcomes. The tariff and the logic of the PJM market rules require that a Market Seller Offer Cap reflect a unit’s marginal cost of producing energy in the calculation of net Projected Market Revenues. By seeking to change this requirement, the Petition constitutes a request for a license to exercise market power by raising offer caps in the capacity market above the competitive level in the Base Residual Auction for the 2017/2018 Delivery Year and future auctions. As a longstanding practice, all

---

<sup>1</sup> 18 CFR § 385.211 (2013).

<sup>2</sup> Capitalized terms used herein and not otherwise defined have the meaning used in the PJM Open Access Transmission Tariff (“OATT”) or the PJM Operating Agreement (“OA”).

units with unit-specific offer caps in RPM Auctions have calculated their Market Seller Offer Caps using the method for the calculation of net revenues to which FirstEnergy now objects. If FirstEnergy's argument that the rules require overstating marginal costs in calculating Market Seller Offer Caps were accepted, it would mandate the exercise of market power by all participants in future RPM Auctions until the flaw in the rules could be corrected. FirstEnergy provides no reason to overturn the longstanding established practice of accurately calculating net revenues. The calculations by the Market Monitor are correct and the calculations follow the tariff. The market power mitigation program in RPM should not be undermined. Accordingly, the Petition should be denied.

The current tariff language properly requires Capacity Market Sellers to calculate the net revenues used for calculating their Market Seller Offer Cap in the capacity market based on their marginal costs of providing energy.<sup>3</sup> The tariff does not permit participants to include items as marginal costs that are not among the costs defined in Schedule 2 of the Operating Agreement and the PJM Cost Development Guidelines (Manual 15). This provision does not require a participant to calculate net revenues based on the highest offer price cap that could be calculated under the Cost Development Guidelines when the participant knows that this value would not accurately state its marginal costs. FirstEnergy misreads the tariff when it argues otherwise.

The purpose of the RPM provision at issue, Section 6.8(d) of Attachment DD to the OATT, is to calculate net revenues accurately. An accurate calculation of net revenues is needed to calculate Projected PJM Market Revenues accurately. An accurate calculation of Projected PJM Market Revenues is needed to calculate Market Seller Offer Caps accurately. An accurate calculation of Market Seller Offer Caps is needed to protect RPM auctions from

---

<sup>3</sup> See OATT Attachment DD § 6.8(d) (Requires the calculation of Projected PJM Market Revenues "net of marginal costs for providing such energy (i.e., costs allowed under cost-based offers pursuant to Section 6.4 of Schedule 1 of the Operating Agreement) and ancillary services from such resource").

the exercise of market power and to ensure competitive results. Contrary to FirstEnergy's arguments, requiring the calculation of inputs using a method that overstates marginal costs is not consistent with the purpose of Section 6.8(d) or the goals of the PJM Capacity Market.

Accordingly, this proceeding should be resolved by an order declaring, consistent with the PJM tariff and longstanding established practice, that Projected PJM Market Revenues must be calculated based on the most accurate information about a unit's actual marginal costs and that no change should be made to the Market Seller Offer Caps submitted by FirstEnergy and other participants for the 2017/2018 Base Residual Auction (BRA) in the PJM capacity market.

FirstEnergy requests that this issue be resolved on an emergency basis. No emergency exists. FirstEnergy has had ample opportunity to raise this issue in a timely manner, had they chosen to do so. FirstEnergy's current Market Seller Offer Caps include the Market Monitor's calculation of net revenues and do not include FirstEnergy's calculation of net revenues. The upcoming BRA is not at risk of an exercise of market power if no action is taken on this issue prior to the BRA. The Commission should take whatever time is needed to evaluate the arguments raised in the Petition and Protests.

## **I. BACKGROUND**

Structural market power is a permanent feature of the PJM Capacity Market.<sup>4</sup> The RPM rules employ the three pivotal supplier test to identify Capacity Market Sellers with

---

<sup>4</sup> See Independent Market Monitor, 2013 State of the Market Report for PJM (March 13, 2014) at 157–162, which can be accessed at: [http://www.monitoringanalytics.com/reports/PJM\\_State\\_of\\_the\\_Market/2013.shtml](http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2013.shtml).

See also Independent Market Monitor, "Analysis of the 2013/2014 RPM Base Residual Auction Revised and Updated," (September 20, 2010); "Analysis of the 2014/2015 RPM Base Residual Auction," (April 9, 2012); and "Analysis of the 2015/2016 RPM Base Residual Auction," (September 24, 2013), which can be accessed at: <http://www.monitoringanalytics.com/reports/Reports/2014.shtml>.

market power and apply market power mitigation to the capacity market offers of sellers that fail the test. Effective market power mitigation is necessary to ensure competitive results. Capacity Market Sellers fail the test effectively all of the time and their offers are mitigated. When market power mitigation applies, Capacity Market Sellers are limited to Sell Offers at or below their Market Seller Offer Caps.<sup>5</sup> Market power mitigation requires Capacity Market Sellers to offer at competitive levels when the market lacks the competitive structural conditions that would otherwise result in such offers.

It is critical that Market Seller Offer Caps be as accurate as possible because they directly affect capacity market prices. Market power mitigation only works if the Market Seller Offer Caps are calculated accurately. If the market clears based on a Seller Offer that reflects an inaccurate and overstated Market Seller Offer Cap, then market power is exercised.

Most Market Seller Offer Caps are calculated on the basis of resources' Avoidable Cost Rate (ACR) less net revenues from PJM energy and ancillary services markets.<sup>6</sup> A seller may use the applicable default avoidable cost rate or calculate a unit specific avoidable cost rate. In either case, the Market Seller Offer Cap equals ACR less Projected PJM Market Revenues.

Section 6.8(d) of Attachment DD to the OATT provides that Projected PJM Market Revenues be calculated as follows:

Projected PJM Market Revenues for any Generation Capacity Resource to which the Avoidable Cost Rate is applied shall include all actual unit-specific revenues from PJM energy markets, ancillary services, and unit-specific bilateral contracts from such

---

<sup>5</sup> See OATT Attachment DD § 6.5(a)(i) ("Mitigation will be applied on a unit-specific basis and only if the Sell Offer of Unforced Capacity from an Existing Generation Capacity Resource: (1) is greater than the Market Seller Offer Cap applicable to such resource; and (2) would, absent mitigation, increase the Capacity Resource Clearing Price in the relevant auction.").

<sup>6</sup> See OATT Attachment DD § 6.4(a).

Generation Capacity Resource, net of marginal costs for providing such energy (i.e., costs allowed under cost-based offers pursuant to Section 6.4 of Schedule 1 of the Operating Agreement) and ancillary services from such resource. ... [T]he calculation of Projected PJM Market Revenues shall be equal to the rolling simple average of such net revenues as described above from the three most recent whole calendar years prior to the year in which the BRA is conducted.

The Market Monitor does not determine the level of Market Seller Offer Caps. The Market Monitor reviews the Capacity Market Sellers' proposed caps and discusses the caps with Market Sellers.<sup>7</sup> The Market Monitor provides the Market Monitor's view of whether

---

<sup>7</sup> See OATT § 12A. Section 12A provides:

The Office of the Interconnection determines whether an offer, bid, components of an offer or bid, or decision not to offer a committed resource complies with the PJM Market Rules. The Office of the Interconnection has the final authority to determine whether an offer, bid or decision not to offer a committed resource complies with the PJM Market Rules. The Office of the Interconnection may accept an offer, bid or decision not to offer a committed resource regardless of whether the Market Monitoring Unit has made a finding that such conduct raises market power concerns, unless the Commission issues an order determining that the offer or bid must be rejected prior to the clearing of the relevant RPM Auction.

The Office of the Interconnection does not make determinations about market power, including, but not limited to, whether the level or value of inputs or a decision not to offer a committed resource involves the potential exercise of market power. Acceptance or rejection of an offer or bid by the Office of the Interconnection does not include an evaluation of whether such offer or bid represents a potential exercise of market power.

A market participant may submit any offer or bid that it chooses or make a decision not to offer a committed resource, provided that the Office of the Interconnection determines that: (i) the market participant has participated in the review process conducted by the Market Monitoring Unit (without regard to whether an agreement is obtained) if required by the Tariff; (ii) offer is no higher, in the case of seller market power, or lower, in the case of buyer side market power, than the level to which the market participant has committed or agreed in the course of its participation in such review process; and (iii) the offer is compliant with the Tariff and PJM Manuals. The market participant assumes exclusive responsibility for any adverse findings at the Commission related to its offer.

*See also*, Jeffrey Mayes, Howard Haas and Joseph Bowring, "Effective Monitoring and Mitigation in the Organized Wholesale Electric Power Markets," J. REGUL. ECON., v 41 (July 21, 2012).

the components of the proposed Market Seller Offer Caps are consistent with competitive offers but has no authority to compel a participant to change its offer or to make an offer at any specific level. Market Sellers and the Market Monitor reach agreement on the level of Market Seller Offer Caps in almost every case. But in every case, Capacity Market Sellers have full and sole responsibility for their offers and their impact on the markets.<sup>8</sup> Market Sellers provide their offer caps. PJM may reject offers that do not comply with its interpretation of the applicable rules, but PJM does not make determinations about market power.<sup>9</sup>

## II. COMMENTS

### **A. A Plain Reading of Section 6.8(d) Requires FirstEnergy to Calculate Projected PJM Market Revenues Based on Its Actual Marginal Costs.**

The Market Seller Offer Cap equals the avoidable costs of providing capacity from a resource (ACR) less Projected PJM Market Revenues for that resource. Projected PJM Market Revenues for a resource are the gross revenues from energy and ancillary services markets and bilateral contracts for the resource, net of the marginal costs of that resource to provide that energy. FirstEnergy's Petition concerns the calculation of Projected PJM Market Revenues and specifically the marginal costs of providing that energy.

The Market Monitor calculates the Projected PJM Market Revenues by starting with gross revenues based on energy output and LMPs and subtracting the marginal costs of producing that energy. The Market Monitor uses the lower of the non-zero price-based energy offer and the cost-based energy offer to calculate the actual marginal cost of producing energy. The Market Monitor also considers other information, as available and appropriate, to calculate actual marginal costs. FirstEnergy wants to require the Market

---

<sup>8</sup> *Id.*

<sup>9</sup> *Id.*

Monitor to use the cost-based energy offer regardless of whether it is the marginal cost of producing energy.

Specifically, FirstEnergy asks the Commission to determine (at 1) “that [the OATT] requires a generator’s Market Seller Offer Cap in RPM to reflect the unit’s cost-based energy offers in the determination of net Projected PJM Market Revenues.”<sup>10</sup>

FirstEnergy is not correct about what the tariff requires. The tariff does not require the use of cost-based energy offers in the calculation of net revenues as part of the Market Seller Offer Cap. The tariff requires the use of marginal costs in the calculation.

The tariff requires that Projected PJM Market Revenues include projected revenues “net of marginal costs for providing such energy.” A parenthetical follows the requirement to use marginal costs, “(i.e., costs allowed under cost-based offers pursuant to Section 6.4 of Schedule 1 of the Operating Agreement.)” The parenthetical does not require the inclusion of every cost identified in the applicable rules for cost-based offers regardless of whether it reflects a unit’s actual marginal costs. The tariff requires that marginal costs be used to calculate net revenues and the following parenthetical requires that no cost that is not allowed under Schedule 2 of the Operating Agreement and the PJM Cost Development Guidelines (Manual 15) can be included in marginal costs. Only allowed costs can be included. If the purpose of the tariff had been to require the use of “cost-based offers” and not “marginal costs” with the condition that these marginal costs not include costs other than “costs allowed under cost-based offers,” the tariff would have simply stated “cost-based offers.”

There are three types of costs identified under PJM rules: marginal costs (or incremental costs), costs incurred directly as a result of producing energy for an hour; avoidable costs, costs that would be avoided if energy were not produced over an annual

---

<sup>10</sup> The tariff defines the calculation of Projected PJM Market Revenues at Section 6.8(d) of Attachment DD to the OATT.

period; and fixed costs, costs associated with an investment in a facility including the return on and of capital.

Section 6.8(d) provides that marginal costs should be used in the calculation of net revenues and that only costs “allowed” under Schedule 2 of the Operating Agreement and the PJM Cost Development Guidelines (Manual 15) may be included in the marginal costs for producing energy. The parenthetical explicitly limits participants to including only such allowed costs in order to avoid what had been contentious debates about whether the other types of costs were marginal costs.

The parenthetical does not require participants to include costs identified in Schedule 2 of the Operating Agreement and the PJM Cost Development Guidelines (Manual 15) that the participant does not treat as marginal costs for its specific unit. The parenthetical does not require participants to include the ten percent adder that is included in the calculation of offer price caps,<sup>11</sup> but is excluded from the definition of incremental cost in Section 6.4.2(a)(ii), is excluded from the list of costs in Schedule 2 of the OA,<sup>12</sup> and is not identified as a cost in the Cost Development Guidelines (PJM Manual 15).

FirstEnergy includes an argument (at 8–9) about the tariff’s use of “i.e.” rather than “e.g.” in the parenthetical. FirstEnergy claims that the use of “i.e.” means that participants are required to use cost-based offers. But if FirstEnergy’s logic were followed, the ten

---

<sup>11</sup> The inclusion of a ten percent adder in the PJM’s cost calculation rules predates the establishment of PJM’s competitive markets in the late 1990s. It was a policy of PJM’s predecessor PJM Power Pool. PJM Power Pool records indicate that a ten percent adder was included to reflect uncertainty resulting from the impact of ambient conditions on the costs of operating Combustion Turbines (CTs). The original rationale for setting the adder at ten percent is unclear. The rationale for applying the adder to generating unit types other than CTs in the PJM market rules that applied after the introduction of the market on April 1, 1999 is also unclear.

<sup>12</sup> OA Schedule 2 lists the following: For generating units powered by boilers: Firing-up cost, Peak-prepared-for maintenance cost; For generating units powered by machines: Starting cost from cold to synchronized operation; For all generating units: Incremental fuel cost; Incremental maintenance cost; No-load cost during period of operation; Incremental labor cost; Other incremental operating costs.

percent adder must be part of marginal costs because the ten percent adder is part of the calculation of cost-based offers. This conclusion is inconsistent with the careful formulation of Section 6.8(d), which provides that only the “costs allowed under cost-based offers” may be included as marginal costs [emphasis added]. The ten percent adder is not defined as a cost in Schedule 2 of the Operating Agreement and the ten percent adder is not identified as a cost in the Cost Development Guidelines (Manual 15). Thus, FirstEnergy’s reading of 6.8(d) is logically inconsistent and thus incorrect and therefore the inferences that FirstEnergy draws from its incorrect reading are also incorrect.

The logical interpretation of “i.e.” is that it serves to define the set of cost items that can be part of marginal costs and to exclude items that are not marginal costs. The “i.e.” does not require the inclusion of items that are not marginal costs. For the same reason, the Market Monitor agrees with FirstEnergy that it was appropriate to use “i.e.” rather than “e.g.” in the parenthetical in section 6.8(d) of the tariff. The point of restricting the components of marginal costs to the costs that are allowed under cost-based offers is to ensure that only marginal costs may be included and thus that Market Seller Offer Caps are not inflated.

Under FirstEnergy’s logic, cost items such as Variable Operation and Maintenance costs (“VOM”), cannot be excluded from or reduced in the determination of marginal costs because participants are allowed to include VOM in cost-based offers calculated under the Cost Development Guidelines. Yet participants can and do exclude part or all of the allowed VOM costs from their price-based energy offers, when they believe that these costs are not part of their marginal costs. Accepting FirstEnergy’s logic would mean that participants would be required to include in the calculation of net revenues every cost item that is allowed regardless of whether it is accurate. Since that is not a reasonable result, FirstEnergy’s logic cannot be correct.

FirstEnergy later contradicts their position and acknowledges that marginal costs do not have to include all components that may be included in a cost-based offer. FirstEnergy states (at 9): “Schedule 2 of the Operating Agreement and Manual 15 provide the cost

components that market participants *may* include in a cost-based offer [emphasis added]. The Tariff therefore leaves no ambiguity with respect to how the IMM should calculate net PJM Market Revenues.” FirstEnergy recognizes that a participant “may” include cost components in their cost-based offers. Participants are not required to do so. But this recognition is equivalent to recognizing that FirstEnergy’s primary argument can not logically be correct.

It has been the longstanding practice of a significant number of units in PJM to calculate and submit a cost-based offer in the energy market equal to the highest allowed offer price cap and to submit a lower price-based energy offer that includes only actual marginal costs. This is competitive behavior by units that want to run when prices exceed marginal costs. For example, participants offering coal units in PJM typically have price-based offers at levels below the maximum offer price cap because they do not include the ten percent adder and reduce or eliminate VOM in order to accurately calculate marginal costs and to accurately calculate a competitive offer.<sup>13</sup>

Offering actual marginal costs below the offer price cap is exactly the behavior that one would expect from participants at a time when they confront competitive market conditions. Competition means no opportunity to exercise market power. Competition creates a strong incentive to offer actual marginal cost. Accordingly, when a market participant submits non-zero price-based energy offers at levels below its offer price cap, that constitutes strong evidence that the participant believes that it faces competition and wants to be selected in the market whenever the market price exceeds its actual marginal costs.

FirstEnergy argues (at 13), “The best proxy for the marginal cost of energy production available at this time is the cost-based energy offer...” FirstEnergy fails to explain why any proxy is needed. FirstEnergy never states that their cost-based offers are

---

<sup>13</sup> See 2013 State of the Market Report for PJM, at 95.

their actual marginal costs. FirstEnergy never states that their price-based offers are not their actual marginal costs. FirstEnergy never states that they provided evidence to the Market Monitor during the review process that their price-based offers are not their actual marginal costs. FirstEnergy never states that their cost-based offers do not exceed their actual marginal costs. The Market Monitor, based on a review of FirstEnergy's offers, does believe that the price-based offers for the certain coal-fired units that are at issue under the Petition ("FE Units") are the marginal costs of producing energy from those units.

FirstEnergy's price-based offers for these units are calculated in a manner exactly consistent with removal of the ten percent adder and removal of some or all VOM, neither of which are marginal costs. The values offered by FirstEnergy into the energy market are consistent with marginal costs, consistent with the behavior of similarly situated participants and consistent with competitive offers. The tariff does not require FirstEnergy to use values other than its actual marginal costs for calculating Projected PJM Market Revenues for purposes of calculating the Market Seller Offer Caps in the capacity market.

The approach taken by the Market Monitor to calculating offer caps in the capacity market is fully consistent with the way in which market power mitigation is implemented in the PJM energy market. In the PJM energy market, when a unit has structural market power and its offer is mitigated, the unit's offer is set to the lower of the price-based or cost-based offer. Thus, FirstEnergy's proposal is inconsistent with the way in which market power mitigation works in the energy market. If FirstEnergy's approach were adopted, a unit could be mitigated in the energy market to its lower price-based offer yet have its net revenues calculated based on its higher cost-based offer, artificially reducing its net revenues for purposes of calculating the Market Seller Offer Caps in the capacity market.

**B. The Intent of the Rules Is to Include Actual and Accurate Values for Marginal Costs in the Calculation of Projected PJM Market Revenues.**

FirstEnergy argues (at 9): "[T]he chosen phrasing in the Tariff clarifies that cost-based offers shall be used to calculate marginal cost" [emphasis in the original]. This is not correct, for the reasons stated. "Allowed" does not mean "shall." "Costs" do not mean

everything allowed in a “cost-based offer.” Nonetheless, if the Commission determines that the tariff phrasing in the parenthetical is ambiguous, then the tariff phrasing should be construed consistent with its intended purpose.<sup>14</sup> The intended purpose is to include actual marginal costs in the calculation of Projected PJM Market Revenues in order to appropriately calculate actual net revenues, in order to appropriately set the level of Market Seller Offer Caps and to protect RPM Auctions from the exercise of market power.

**1. FirstEnergy’s Arguments for How to Resolve Ambiguity in Section 6.8(d) Have No Merit.**

First Energy does not argue that the tariff is ambiguous. FirstEnergy does, however, argue for several approaches to resolve any ambiguity in the tariff. None of those approaches have merit.

FirstEnergy cites to differences in the tariff language filed by PJM in 2005 and the tariff language included in the settlement filed in 2006 to support its argument.<sup>15</sup> Nothing in the history of the relevant tariff language supports equating cost-based offers with marginal costs. There were four changes, none of which support FirstEnergy’s argument that “marginal costs” equate to “cost-based offers.” On the contrary, by adding “i.e.”; changing “recoverable” to “allowed”; enclosing in parentheses the phrase, “the costs allowed under cost-based offers”; and adding the modifying phrase “pursuant to Section 6.4 of the Operating Agreement,” the filed language added emphasis to the role of marginal costs, made more clear that costs allowed under cost-based offers were just costs and not adders and were the maximum costs allowed. The history and final language about the definition

---

<sup>14</sup> See, e.g., *Elliot Coal Mining Company, Inc. v. U.S. Dept. of Labor, et al.*, 17 F.3d 616, 631 (1994) (“[A]dditional support for our parsing of the text of the Act ... can be found in the ‘mischief’ rule, discussed in the venerable *Heydon’s Case*, 76 Eng. Rep. 637 (Ex. 1584). That canon of construction directs a court to look to the “mischief and defect” that the statute was intended to cure. *Id.* at 638.”).

<sup>15</sup> FirstEnergy references language in the initial language filed by PJM on August 31, 2005, and the transmittal letter. PJM RPM Filing, Docket No. ER05-1410, et al.

of costs are all consistent with the intended purpose of ensuring that costs in excess of marginal costs are not included, i.e. to ensure that there is no overstatement of marginal costs, rather than the reverse.

FirstEnergy argues (at 9) for ignoring the meaning of “marginal costs” in favor of the subordinate parenthetical phrase because “specific words identify and restrict the meaning of general words.” But FirstEnergy misinterprets the meaning of the parenthetical to require the inclusion of all allowed costs. The Market Monitor agrees that the parenthetical phrase limits possible interpretations of marginal cost, but does so by explicitly preventing the inclusion of any costs not allowed in cost-based offers.

FirstEnergy argues that RPM cannot solve the “missing money” problem that it is intended to solve if the Petition is not granted. As a general matter, RPM does not guarantee specific results for individual units or companies. Requiring FirstEnergy to use its actual marginal costs to calculate its Projected PJM Market Revenues is not the reason that FirstEnergy is not recovering more revenues under the current market design. The Market Monitor’s calculations of marginal costs reflect long standing practice. It is implausible that FirstEnergy did not calculate its own net revenues for prior RPM auctions. Yet FirstEnergy has never raised this issue before. Any missing money problem faced by FirstEnergy did not emerge for the first time in the last thirty days.

The Market Monitor agrees that prices have been suppressed in capacity market auctions and has stated and documented this position repeatedly.<sup>16</sup>

Granting the relief requested by FirstEnergy would not promote an efficient market. The answer to any FirstEnergy missing money issues is not to grant FirstEnergy a license to exercise market power. The answer is instead to change the rules that are suppressing

---

<sup>16</sup> See, e.g., 2013 State of the Market Report for PJM; Analysis of the 2013/2014 RPM Base Residual Auction; Analysis of the 2014/2015 RPM Base Residual Auction; Analysis of the 2015/2016 RPM Base Residual Auction.

prices in the capacity market. These issues have been identified, in many cases their specific impact has been quantified, and there is no reason not to correct these issues immediately.<sup>17</sup>

## **2. Non-Zero Price-Based Offers Below the Offer Price Cap Are Evidence of Participants' Actual Marginal Costs.**

Section 6.8(d) requires Capacity Market Sellers to calculate the revenues included in Projected PJM Market Revenues “*net of marginal costs for providing such energy (i.e., costs allowed under cost-based offers pursuant to Section 6.4 of Schedule 1 of the Operating Agreement) and ancillary services from such resource*” [emphasis added].

An accurate calculation of marginal costs is fundamental to obtaining an accurate calculation of Projected PJM Market Revenues. An accurate calculation of Projected PJM Market Revenues is fundamental to obtaining an accurate calculation of Market Seller Offer Caps. If marginal costs are overstated, Projected PJM Market Revenues are understated. If Projected PJM Market Revenues are understated, the Market Seller Offer Cap is overstated.<sup>18</sup> If the Market Seller Offer Cap is overstated, and a Sell Offer based on that cap clears the market or influences the offer that clears, RPM market clearing prices will exceed competitive levels.

When a market participant submits a non-zero price-based offer below the highest offer price cap that it could justify under the rules, it is evidence of the participant's actual marginal costs. Participants in PJM calculate their own offers in PJM markets and participants have exclusive responsibility to submit offers that are not intended to exercise market power, that are not part of a manipulative scheme, and that do not otherwise violate the PJM market rules.

---

<sup>17</sup> *Id.*

<sup>18</sup> A Market Seller Offer Cap equals Avoidable Cost Rate (ACR) less Projected PJM Market Revenues; Projected PJM Market Revenues equal revenues from PJM energy and ancillary services market and bilateral sales less marginal costs.

In the competitive PJM energy market, sellers have an incentive to offer their actual marginal costs. That is the profit maximizing strategy and there is strong evidence that actual sellers offer their actual marginal costs.<sup>19</sup> Sellers want their unit dispatched when the market price (Locational Marginal Price (LMP)) is greater than marginal cost.

Accordingly, a non-zero offer lower than the offer cap is the best available evidence of what the seller believes is its marginal cost. The Market Monitor uses the lower of the non-zero price-based energy offer and the cost-based energy offer to calculate the actual marginal cost of producing energy. The Market Monitor also considers other information, as available and appropriate, to calculate actual marginal costs. Using the seller's actual marginal cost is the only way to correctly calculate net revenues for the unit. It is the longstanding practice of the Market Monitor and participants to calculate net revenues in this way.

### **3. Price Offers at Zero Dollars Do Not Reflect Marginal Costs and They Are Not Used to Calculated Projected PJM Market Revenues.**

FirstEnergy argues (at 13–14), “There are a variety of appropriate and rational reasons why a unit would bid into the energy market as a price taker, i.e., at prices at or near zero, for certain operating hours.” FirstEnergy explains (at 14): “By choosing to operate in some hours by generating when energy prices are below a plant’s marginal cost of production, the plant operator is making a rational decision to absorb a small loss to avoid an even greater loss caused by the inefficient cycling of the plant that would otherwise occur.” This argument is a red herring. No one argues that offers at or near zero dollars

---

<sup>19</sup> See 2013 State of the Market Report for PJM at 57-61 & 95. The 2013 State of the Market report for PJM, Energy Section, p 95, also states: “Even the adjusted markup underestimates the markup because coal units facing increased competitive pressure have excluded both the ten percent adder and components of operating and maintenance cost. While both these elements are permitted under the definition of cost-based offers in the relevant PJM manual, they are not part of a competitive offer for a coal unit because they are not actually marginal costs and market behavior reflected that fact.”

reflect any resource's marginal costs. Offers at or near zero dollars do not indicate marginal costs and they are not used to calculate Projected PJM Market Revenues. FirstEnergy does not assert that offers at or near zero are at issue between FirstEnergy and the Market Monitor. They are not.

In the PJM energy market, the price-based offers of most units are at or close to their actual marginal costs. Coal units typically offer at levels equal to their marginal costs but at levels less than allowed under the Cost Development Guidelines.<sup>20</sup>

This petition was filed as a result of the Market Monitor's review of FirstEnergy's calculation of its offer price caps for certain of its coal-fired generating units ("FE Units"). FirstEnergy offers no attestation here or elsewhere that its price-based offers reflect anything other than FirstEnergy's calculation of the actual marginal costs of the FE Units. FirstEnergy's behavior has been consistent with the behavior of other market participants who have for years accepted that their non-zero price offers lower than their offer price caps are the best indicator of their actual marginal costs.

**4. Prevention of the Exercise of Market Power and Compliance with the PJM Market Rules Require that Capacity Market Sellers Calculate Net Revenues on the Basis of Actual Marginal Costs.**

FirstEnergy appears to assert that it is acceptable for a Capacity Market Seller to use cost-based offers as marginal costs in the calculation of net revenues when it knows that its actual marginal costs are lower than its cost-based offers. Allowing FirstEnergy to artificially reduce its Projected PJM Market Revenues would mean allowing FirstEnergy to submit an artificially inflated cost-based Market Seller Offer Cap in the 2017/2018 Base Residual Auction (BRA). This would mean a potential exercise of market power in the

---

<sup>20</sup> See 2013 State of the Market Report for PJM at 95.

2017/2018 BRA. The Market Monitor has a responsibility to prevent the potential exercise of market power in PJM markets.<sup>21</sup>

The method used to calculate Projected PJM Market Revenues will have a significant impact on FirstEnergy's Market Seller Offer Caps for the FE Units in the 2017/2018 Base Residual Auction. FirstEnergy's Market Seller Offer Caps for the FE Units have the potential to set or directly affect capacity market prices. As a result, the difference in the calculation of Projected PJM Market Revenues could be significant for the results of the upcoming RPM Base Residual Auction for 2017/2018. For example, there is a possibility that the level of Sell Offers submitted for certain of the FE Units will influence whether specific zones clear as Locational Deliverability Areas (LDA) with price separation.

The effects would involve more than just the FE Units. A finding that FirstEnergy is required to calculate Projected PJM Market Revenues based on its cost-based offers rather than its marginal costs would apply equally to all other Capacity Market Sellers. This would create additional opportunities to exercise market power under inflated Market Seller Offer Caps, with potentially large impacts and would require that the offer caps for other Capacity Market Sellers be recalculated.

Accordingly, to prevent the exercise of market power in RPM Auctions and to ensure just and reasonable pricing in RPM Auctions, FirstEnergy and other Capacity Market Sellers should be required to continue to calculate Projected PJM Market Revenues based on the most accurate information about a unit's actual marginal costs.

**C. There Is No Reason for Expedited Action on the Petition.**

FirstEnergy has met the applicable deadline to submit Market Seller Offer Caps for its units. Those offer caps include the Market Monitor's calculation of net revenues and do not include FirstEnergy's calculation of net revenues. The Market Monitor is confident that

---

<sup>21</sup> See OATT Attachment M § IV.B.4.

those values reflect FirstEnergy's actual marginal costs and would not, if they set price, constitute an exercise of market power. Accordingly, there is no reason to expedite resolution of this proceeding. PJM's ability to administer the BRA that commences May 12, 2014, and the ability of that BRA to produce competitive results, does not depend on receipt of a decision on the Petition prior to the auction.

The Market Monitor explicitly discussed the Market Monitor's method of calculating net revenues using the lower of price-based or cost-based offers with FirstEnergy in November 2012. FirstEnergy also discussed the issue with the Market Monitor in the months prior to deciding to make its offers consistent with the Market Monitor's calculations on March 7, 2014. If FirstEnergy disagreed with the longstanding, widely accepted and established practice for the calculation of net revenues, it could have filed with the Commission well before the applicable auction deadlines. FirstEnergy could have done so at any time since they first participated in RPM auctions for the 2013/2014 Delivery Year. It did not do so. FirstEnergy cannot make a credible case that this matter requires urgent attention.

### III. CONCLUSION

The Market Monitor respectfully requests that the Commission afford due consideration to the arguments raised in this pleading as the Commission resolves the issues raised in this proceeding.

Respectfully submitted,



---

Jeffrey W. Mayes

Joseph E. Bowring  
Independent Market Monitor for PJM  
President  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Valley Forge Corporate Center  
Eagleville, Pennsylvania 19403  
(610) 271-8051  
*joseph.bowring@monitoringanalytics.com*

General Counsel  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Valley Forge Corporate Center  
Eagleville, Pennsylvania 19403  
(610) 271-8053  
*jeffrey.mayes@monitoringanalytics.com*

Dated: April 18, 2014

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Eagleville, Pennsylvania,  
this 18<sup>th</sup> day of April, 2014.



---

Jeffrey W. Mayes  
General Counsel  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Valley Forge Corporate Center  
Eagleville, Pennsylvania 19403  
(610) 271-8053  
*jeffrey.mayes@monitoringanalytics.com*