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Monitoring Analytics, LLC
2621 Van Buren Avenue, Suite 160
Valley Forge Corporate Center
Eagleville, PA 19403
Phone: 610-271-8050
Fax: 610-271-8057

Monitoring Analytics

VIA EMAIL

January 31, 2011

Terry J. Romine
Executive Secretary
Maryland Public Service Commission
William Donald Schaeffer Tower
6 St. Paul Street
Baltimore, Maryland 21202-6806

Re: Case No. 9214

Dear Mr. Romine:

On January 28, 2011, Monitoring Analytics, LLC, in its capacity as the Independent Market Monitor for PJM ("IMM") filed comments in the above referenced proceeding with a supporting study. It has come to the IMM's attention that a number of non-substantive corrections are needed in the supporting study.

The errors with the most potential for confusion include references to "PSEG" than should read "Pepco" at the bottom of page 2 and in the caption for the table included on page 4. On page 1, the sentence on the last line that begins, "There…," should instead begin, "These …." In the last sentence on page 3, the passage, "and the RTO clearing quantity," should read "and the rest of RTO clearing quantity."

Please find attached the IMM's comments (as filed) and the revised supporting study. The supporting study is identical to the version filed on January 28th except for the corrections specified above. Corrected copies have also been sent by mail.

The IMM regrets any inconvenience that this may have caused.

Sincerely,

Jeffrey W. Mayes
General Counsel

-STATE OF MARYLAND
PUBLIC SERVICE COMMISSION

In the Matter of Whether New Generating Facilities Are Needed to Meet Long-Term Demand for Standard Offer Service	)	Case No. 9214

COMMENTS OF THE INDEPENDENT MARKET MONITOR FOR PJM

Pursuant to the notice of the Maryland Public Service Commission ("Commission") issued in the above referenced case on December 29, 2010, Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM[1] ("Market Monitor"), submits these comments on the Commission's proposal to conduct an RFP to select resources to supply capacity in the PJM capacity market, the Reliability Pricing Model ("RPM"), and to require electric distribution companies to enter into long term contracts for differences with selected resources.

Maryland clearly has the right and the obligation to address its own reliability needs if it does not think PJM markets are adequately addressing them. However, there is no evidence that this is the case. It is also true that the capacity market rules in PJM are not perfect. Additional efforts are needed to make them better. The Market Monitor supports the continued efforts of the Commission to improve and protect the competitive wholesale markets.

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[1] PJM Interconnection, L.L.C., which operates the bulk power grid and administers the organized wholesale electric markets in Maryland, and all or part of 12 other states and the District of Columbia. Capitalized terms used herein and not otherwise defined have the meaning specified in the PJM Open Access Transmission Tariff ("OATT").

I. COMMENT

A. Higher Relative Capacity Prices Are Not Evidence of a Deficient Supply in Maryland

Energy and capacity prices on average are higher in Maryland than in most other parts of the PJM Region. This is naturally a cause for concern, but this alone does not mean that new capacity is needed in Maryland. Markets can be expected to result in price differences on the basis of the economic fundamentals. There is no evidence that higher prices in Maryland are the result of anything other than the appropriate operation of the markets and the related fact that supply and demand are closer to being in balance in EMAAC than in the rest of RTO. The long term interests of Maryland consumers are best served by a competitive and efficient wholesale market, with low barriers to entry.

B. Maryland Consumers Will Be Better Off in the Long Run Participating in a Well Designed RPM

The proposed RFP suggests that the Commission lacks confidence in the RPM rules, and the ability of capacity market incentives to incent new investment. The Market Monitor believes a number of components of RPM do require reform to ensure efficient attraction of new entry. Significant examples include modification of the New Entry Pricing Adjustment (NEPA) rules to enhance the incentives for the construction of new generation and removing the removal of the arbitrary reduction of 2.5 percent of demand from Based Residual Auctions.[2] The flaws identified in the RPM market rules do not support the position that prices in Maryland are too high. These steps could increase rather than reduce prices in Maryland in the short run, particularly if they are not accompanied by steps to

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[2] *See* OATT Attachment DD §§ 2.6A, 2.6B, 5.4, 5.10, 5.12 & 5.14(c),

ensure the lowest possible barriers to entry for new generation. Maryland consumers will, however, be better off in the long run if the RPM rules are reformed to allow the market to operate fully in accordance with its design.

If the Commission does not believe that the PJM capacity markets are the most cost effective way to maintain reliability, the most direct option would be to opt out of RPM markets entirely via the FRR (fixed resource requirement) option. Under the FRR option, the choices that Maryland utilities make would have a minimal impact on other participants in the RPM markets and would permit Maryland to make its own decisions about how to reach required reliability levels. There is no guarantee that the FRR outcome would be lower cost than participating in the RPM markets. The Market Monitor does not recommend this course of participation in PJM's capacity market.

If the Commission does not believe that the PJM capacity markets are providing for reliability in Maryland, another option would be to explore an alternative form of capacity procurement designed to require the construction of a particular unit in a particular location. This procurement could be designed to permit the Commission to run a competitive auction for Maryland, designed to procure capacity of specific types and in specific locations most consistent with the efficient operation of wholesale power markets and the evolving needs of Maryland. Under this approach, the winning offers in any procurement would have to offer in the RPM auction at the procurement clearing price without subsidies and without reflecting out of market revenue, consistent with the market rules. If the capacity is needed in order to maintain reliability, such offers would clear in the capacity market and would likely set the capacity market clearing price. Such an outcome would be entirely consistent with the PJM market design.

However, procuring capacity when it is not needed for reliability, requiring it to clear in the auction through an offer price below its costs and providing subsidies in the form of additional out of market revenue is not consistent with the PJM market design. The proposed RFP process appears to do exactly that. In addition, such an outcome would not be consistent with a competitive outcome.

The result of such a subsidy by Maryland ratepayers would be to artificially depress the RPM auction prices below the competitive level with the result that the revenues to generators both inside and outside of Maryland would be affected as would the incentives to customers to manage load and to invest in cost effective demand management technologies.

The Market Monitor's analysis indicates that adding 1,800 MW of installed capacity in the Pepco zone in Maryland, paying it through an out of market subsidy, and requiring it to offer at zero would result in a reduction in capacity market revenues to PJM suppliers of more than one billion dollars per year, including about 92 million dollars in Pepco. If the New Jersey legislation is approved and the proposed RFP is implemented, the joint result would be a reduction in capacity market revenues to PJM suppliers of more than three billion dollars per year. The MMU provides the supporting study as an Attachment.

This substantial reduction in revenue would affect the investment decisions of current owners of capacity and potential investors in capacity both in and outside of Maryland. The likely result is less investment in capacity. Depressing the price in Maryland would also mean that the required direct subsidy by Maryland ratepayers would increase with perhaps significant unintended consequences for the business and residential customers who would have to pay the subsidy.

C. The RFP Approach Would Violate the Spirit if Not the Letter of PJM's Minimum Offer Price Rule, Which Protects the Markets from Uneconomic Behavior

If the generation procured as part of an RFP were required to submit an offer below cost into RPM auctions, a market rule known as the Minimum Offer Price Rule ("MOPR") could apply. The primary purpose of the MOPR is to prevent market participants from submitting uneconomic offers in RPM and artificially depressing prices based on the receipt of out of market revenue. The contemplated RFP is not consistent with the purpose of the MOPR. Moreover, stakeholders may challenge the results of an RPM auction clearing capacity built under the RFP and offered at uneconomic levels even if it were determined that the MOPR did not apply.

As currently drafted, the contract to result from the RFP would require the EDCs procuring generation under this process to clear that generation in every RPM Base Residual Auction for the duration of the arrangement. The requirement to clear in the auction means that an eligible generator would be expected to submit a zero offer, or the equivalent of a zero offer, into the RPM Base Residual Auction and be indifferent to the clearing price because the generator would receive guaranteed revenue from the EDC.

The MOPR applies to Capacity Market Sellers with a net short capacity position (obligations to purchase capacity exceed ownership of capacity). Although an eligible generator under RFP arrangement could be a Capacity Market Seller with a net long capacity position (ownership of capacity exceeds obligation to purchase capacity), the result of any offer under the legislation would be same as an offer that violated the MOPR. The out of market revenue would create an incentive to make a zero offer in RPM and be indifferent to the clearing price. Such an offer violates the intent of the MOPR because the

EDCs in Maryland (who are net short) are required to purchase the capacity sold under this offer at the full contract price.

As the Federal Energy Regulatory Commission ("FERC") stated in its order dated March 26, 2009 in a docket involving PJM's capacity market, "[t]he Commission has previously expressed concern that uneconomic entry can be used by certain buyers to depress market clearing prices and has authorized MOPR-type rules."[3] Given this situation, the Commission should expect that FERC will be called upon to clarify the applicability of the MOPR to this situation prior to the conduct of the first Base Residual Auction affected by the RFP so that market participants may have certainty and confidence in the auction results. The Market Monitor would take the position that the MOPR should apply in this situation. If the MOPR were found to apply in this case, the subject generation sources would be required to offer at a competitive price for new entry, which would create risk the resources would not clear in this auction.

D. The Market Monitor Can Be of Further Assistance to the Commission in Evaluating Market Conditions in Maryland and the Markets Need the Continued Involvement of the Commission to Improve PJM Market Rules

The Market Monitor respectfully requests that the Commission carefully consider the issues raised above and avoid potential unforeseen or unintended impact resulting from implementing the proposed RFP. The Market Monitor is authorized to work with the Commission and its staff on this important issue,[4] and it is available to discuss the basis of energy and capacity prices in Maryland. The Market Monitor is also prepared to assist the

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[3] *PJM Interconnection, L.L.C.*, 126 FERC ¶61,275 at P 191.

[4] *See* OATT Attachment M §VI.B & D.

Commission in identifying barriers to entry that may affect prices in Maryland and to help identify steps that could be taken to eliminate them.

The Market Monitor also welcomes the continued involvement of the Commission in helping to improve the RPM market rules. This would include steps for ensuring that prices in the PJM markets are sufficient to attract new entry, but not affected by market power. The Market Monitor observes, in particular, the essential role played by this Commission in improving and confirming the application of the mitigation program that protects PJM energy and capacity markets.[5] The Market Monitor respectfully supports a continuation of this constructive approach by the Commission to ensuring that the most efficient and competitive wholesale electricity markets possible exist to serve Maryland consumers.

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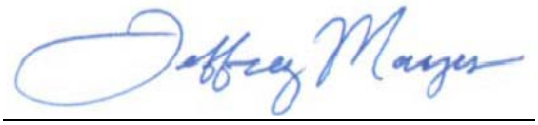
[5] *See PJM Interconnection, L.L.C.*, 123 FERC ¶ 61,169, *order on reh'g*, 125 FERC ¶61,340 (2008).

II. CONCLUSION

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

Respectfully submitted,



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

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

Dated: January 28, 2011

Monitoring Analytics

Impact of Maryland PSC's Proposed RFP on the PJM Capacity Market

The Independent Market Monitor for PJM

January 28, 2011

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Introduction

On December 29, 2010, the Maryland Public Service Commission (Commission) issued a draft formal request for proposals (RFP) and asked for comment. The Commission explained that through this process it would seek offers for new generating facilities in or around Maryland and that electric distribution companies (EDCs) could be required to enter into long term contracts with persons that construct such facilities. In addition, the Commission states that it anticipates that it will order the EDCs to submit proposals to construct, acquire, or lease, and operate new generation capacity resources. Suppliers of capacity procured under the RFP "must offer such Capacity into the PJM BRA so that it will clear and be committed" and will receive under a contract for differences the amount determined through the RFP net of capacity and energy payments from PJM.

The result of such a subsidy by Maryland ratepayers would be to artificially depress the Reliability Pricing Model (RPM) auction prices below the competitive level, with the result that the revenues to generators both inside and outside of Maryland would be reduced as would the incentives to customers to manage load and to invest in cost effective demand side management technologies.

An analysis of the impact of adding 1,800 MW of installed capacity, or 1,719.2 MW of unforced capacity, in the Pepco zone in Maryland, paying it through an out of market subsidy, and requiring it to offer at zero shows that the result would be a reduction in capacity market revenues to PJM suppliers of more than one billion dollars per year, including about 90 million dollars in Pepco and about 900 million dollars in rest of MAAC.[1] These would have been the results in the 2013/2014 RPM Base Residual Auction if an additional 1,719.2 MW of unforced capacity had been offered at a zero price in Pepco.

An analysis of the impact of adding 1,719.2 MW of unforced capacity in Pepco in Maryland and 2,000 MW of unforced capacity in PSEG in New Jersey, paying it through an out of market subsidy, and requiring it to offer at zero shows that the result would be a reduction in capacity market revenues to PJM suppliers of more than three billion dollars per year. This three billion dollars per year impact includes reductions in market revenues of about 200 million dollars in Pepco, about one billion dollars in EMAAC, and about one billion dollars in rest of MAAC. These would have been the results in the

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[1] The PJM class average EFORd value for combined cycles of 0.0490 was applied to determine the unforced capacity value. See "2005-2009 PJM Generating Unit Class Average Value" (May 24, 2010) (Accessed January 28, 2011) <http://www.pjm.com/planning/resource-adequacy-planning/~/media/planning/res-adeq/2005-2009-pjm-class-average-values.ashx>.

2013/2014 RPM Base Residual Auction if an additional 1,719.2 MW of unforced capacity had been offered at a zero price in Pepco and an additional 2,000 MW of unforced capacity had been offered at a zero price in PSEG.

This substantial reduction in revenue would affect the investment decisions of current owners of capacity and potential investors in capacity both in Maryland and in areas outside of Maryland. The likely result is less investment in new and existing capacity, in the form of generation resources and demand response. Depressing the price in Maryland would also mean that the required direct subsidy by Maryland ratepayers would increase for the specified procured MW, with perhaps significant unintended consequences for the business and residential customers who would have to pay the mandatory subsidy. The result of depressing RPM prices in Maryland would also be to increase the probability that additional subsidies by Maryland ratepayers will be required for any future capacity additions, either in the form of generation or demand side resources, needed to maintain reliability in Maryland. The result of depressing RPM prices over a broad section of PJM would be to increase the probability that subsidies by ratepayers in other states will be required for any future capacity additions, either in the form of generation or demand side resources, needed to maintain reliability in that area.

The primary purpose of the Minimum Offer Price Rule (MOPR) in the PJM capacity market tariff is to prevent market participants from submitting uneconomic offers based on the receipt of out of market payments which result in artificially depressing RPM auction prices. While it is unclear if the MOPR would apply to the offers that would result from the draft RFP, those offers are not consistent with the intent of the MOPR under current capacity market conditions. The MOPR was designed to apply in this situation.

If the proposed RFP were implemented, the outcome in the short term will be regulatory uncertainty and unintended consequences for Maryland, for all owners of and investors in capacity in PJM and for all potential investors in capacity in Maryland, as jurisdictional issues are addressed and the meaning of the market rules is resolved.

Analysis

The analysis starts with all the inputs for the Base Residual Auction (BRA) for the 2013/2014 delivery year. The specified MW of capacity are added to the supply curve of capacity at the specified price in the specified location. The market is recleared and the clearing prices and quantities are calculated.

Table 1 shows the RPM market results for PJM if an additional 1,719.2 MW of Unforced Capacity (UCAP) had been offered in the Pepco zone at $0 per MW-day, compared to the actual results in the 2013/2014 BRA. Table 2 shows the difference between actual results for PJM and the results that would have occurred if an additional 1,719.2 MW UCAP had been offered in Pepco at $0 per MW-day. The results for EMAAC would

have remained the same. The Pepco Locational Deliverability Area (LDA) would not have been constrained, but would have cleared with MAAC. The Pepco clearing price would have decreased $101.11 per MW-day (40.9 percent) from $247.14 per MW-day to $146.03 per MW-day, and the Pepco clearing quantity would have increased 1,580.0 MW (33.0 percent) to 6,371.7 MW. The rest of MAAC clearing price would have decreased $80.12 per MW-day (35.4 percent) from $226.15 per MW-day to $146.03 per MW-day, and the rest of MAAC clearing quantity would have decreased 461.4 MW (1.5 percent) to 29,551.4 MW. The rest of RTO clearing price would have decreased $3.39 per MW-day (12.2 percent) from $27.73 per MW-day to $24.34 per MW-day, and the rest of RTO clearing quantity would have decreased 1,118.6 MW (1.3 percent) to 83,984.8 MW.

Table 3 shows the RPM market results for PJM if an additional 1,719.2 MW UCAP had been offered in Pepco and an additional 2,000.0 MW UCAP had been offered in PSEG at $0 per MW-day, compared to the actual results in the 2013/2014 BRA. Table 4 shows the difference between actual results for PJM and the results that would have occurred if an additional 1,719.2 MW UCAP had been offered in Pepco and an additional 2,000.0 MW UCAP had been offered in PSEG at $0 per MW-day. Both the Pepco and EMAAC LDAs would not have been constrained, but would have cleared with MAAC. The Pepco clearing price would have decreased $129.44 per MW-day (52.4 percent) from $247.14 per MW-day to $117.70 per MW-day, and the Pepco clearing quantity would have increased 902.7 MW (18.8 percent) to 5,694.4 MW. The EMAAC clearing price would have decreased $127.30 per MW-day (52.0 percent) from $245.00 per MW-day to $117.70 per MW-day, and the EMAAC clearing quantity would have increased 1,371.2 MW (4.2 percent) to 34,206.6 MW. The rest of MAAC clearing price would have decreased to $108.45 per MW-day (48.0 percent) from $226.15 per MW-day to $117.70 per MW-day, and the rest of MAAC clearing quantity would have decreased 759.9 MW (2.5 percent) to 29,252.9 MW. The rest of RTO clearing price would have decreased $5.76 per MW-day (20.8 percent) from $27.73 per MW-day to $21.97 per MW-day, and the rest of RTO clearing quantity would have decreased 1,514.0 MW (1.8 percent) to 83,589.4 MW.

Tables

Table 1 Impact on PJM of increasing supply in Pepco by 1,719.2 MW UCAP at $0 per MW-day: 2013/2014 RPM Base Residual Auction

	Actual Auction Results			New Generation Analysis		
LDA	Clearing Prices ($ per MW-day)	Cleared UCAP (MW)	Revenue	Clearing Prices ($ per MW-day)	Cleared UCAP (MW)	Revenue
Pepco	$247.14	4,791.7	$432,240,569	$146.03	6,371.7	$339,617,663
EMAAC	$245.00	32,835.4	$2,936,305,645	$245.00	32,835.4	$2,936,305,645
Rest of MAAC	$226.15	30,012.8	$2,477,399,073	$146.03	29,551.4	$1,575,117,694
Rest of RTO	$27.73	85,103.4	$861,369,808	$24.34	83,984.8	$746,129,362
PJM Total		152,743.3	$6,707,315,095		152,743.3	$5,597,170,364

Table 2 Difference between PJM actual and analysis results of increasing supply in Pepco by 1,719.2 MW UCAP at $0 per MW-day: 2013/2014 RPM Base Residual Auction

	Difference Clearing Prices		Difference Cleared UCAP		Difference Revenue	
LDA	$ per MW-day	Percentage	MW	Percentage	$	Percentage
Pepco	($101.11)	(40.9%)	1,580.0	33.0%	($92,622,906)	(21.4%)
EMAAC	$0.00	0.0%	0.0	0.0%	$0	0.0%
Rest of MAAC	($80.12)	(35.4%)	(461.4)	(1.5%)	($902,281,379)	(36.4%)
Rest of RTO	($3.39)	(12.2%)	(1,118.6)	(1.3%)	($115,240,446)	(13.4%)
PJM Total			0.0	0.0%	($1,110,144,731)	(16.6%)

Table 3 Impact on PJM of increasing supply in Pepco by 1,719.2 MW UCAP and in PSEG by 2,000.0 MW UCAP at $0 per MW-day: 2013/2014 RPM Base Residual Auction

	Clearing Prices	Cleared UCAP		Clearing Prices	Cleared UCAP	
LDA	($ per MW-day)	(MW)	Revenue	($ per MW-day)	(MW)	Revenue
Pepco	$247.14	4,791.7	$432,240,569	$117.70	5,694.4	$244,634,271
EMAAC	$245.00	32,835.4	$2,936,305,645	$117.70	34,206.6	$1,469,532,639
Rest of MAAC	$226.15	30,012.8	$2,477,399,073	$117.70	29,252.9	$1,256,719,210
Rest of RTO	$27.73	85,103.4	$861,369,808	$21.97	83,589.4	$670,307,578
PJM Total		152,743.3	$6,707,315,095		152,743.3	$3,641,193,699

Table 4 Difference between PJM actual and analysis results of increasing supply in Pepco by 1,719.2 MW UCAP and in PSEG by 2,000.0 MW UCAP at $0 per MW-day: 2013/2014 RPM Base Residual Auction

	Difference Clearing Prices		Difference Cleared UCAP		Difference Revenue	
LDA	$ per MW-day	Percentage	MW	Percentage	$	Percentage
Pepco	($129.44)	(52.4%)	902.7	18.8%	($187,606,298)	(43.4%)
EMAAC	($127.30)	(52.0%)	1,371.2	4.2%	($1,466,773,006)	(50.0%)
Rest of MAAC	($108.45)	(48.0%)	(759.9)	(2.5%)	($1,220,679,862)	(49.3%)
Rest of RTO	($5.76)	(20.8%)	(1,514.0)	(1.8%)	($191,062,230)	(22.2%)
PJM Total			0.0	0.0%	($3,066,121,396)	(45.7%)