

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Policy Proceeding—Utilization of Storage  
Resources as Electric Distribution Assets

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Docket No. M-2020-3022877

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

Pursuant to 52 PA Code § 5.71, et seq., and the secretarial letter issued December 3, 2020, inviting written comments from interested parties, Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM (“Market Monitor”), submits these comments in the above matter. The focus of the Market Monitor’s comments are on the potential impacts on wholesale power markets. The Market Monitor also provides as an attachment the Market Monitor’s comments in a proceeding before the Federal Energy Regulatory Commission responding to the proposed use of storage as a transmission asset, because the basic issues are very similar.<sup>1</sup>

**I. COMMENTS**

**1. What applications can electric storage provide as a distribution asset for utilities that would facilitate improved reliability and resiliency?**

The line between the competitive wholesale power market and the distribution systems has begun to blur with the increased penetration of behind the meter assets of various types, including distributed energy resources (DER). The term behind the meter is from the perspective of the wholesale power market. Resources behind the wholesale power market meter are on the distribution system. But these resources are still market resources and subject to the incentives of the competitive wholesale power market. Batteries, and storage more generally, are part of the competitive wholesale power markets and are considered market resources. The Market Monitor opposes the inclusion

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<sup>1</sup> Comments of the Independent Market Monitor for PJM, FERC Docket No. EL20-58-000 (August 8, 2020) (included as Attachment); *see also American Electric Power Service Corporation*, 173 FERC ¶ 61,264 (2020) (order denying petition to declare storage asset classifies as transmission).

of batteries in the rate base of transmission owners because such inclusion undercuts competition by displacing competitive storage resources and imposing costs and risks on customers. In competitive markets, investors bear the risk. In the case of storage, the risk of technological obsolescence is extremely high as innovations are currently occurring at a rapid pace. Competitive power markets are essential to meeting the Commission's overriding goal to ensure that customer rates remain affordable.

**2. What are the defining characteristics of electric storage used for distribution asset planning as distinguished from generation resources? What thresholds, if any, would classify electric storage as a generation resource and therefore outside permitted distribution ratemaking and recovery?**

Electric storage is treated as a generation resource in the PJM wholesale power market. There is no threshold below which, given the current market definitions, storage resources would be defined as transmission. Electric storage could also be used by market participants as a way to manage load. Such a use would still be a competitive market application and not a regulated transmission asset.

**3. Is it prudent for utilities to include electric storage in their distribution resource planning and, if so, where and under what circumstances? Further, is it appropriate for utilities to include such investments in rate base?**

Storage is a market asset. The Market Monitor opposes the inclusion of batteries in the rate base of transmission owners because such inclusion undercuts competition by displacing competitive storage resources and imposing costs and risks on customers. In competitive markets, investors bear the risk. In the case of storage, the risk of technological obsolescence is extremely high as innovations are currently occurring at a rapid pace. Competitive power markets are essential to meeting the Commission's overriding goal to ensure that customer rates remain affordable. Inclusion of storage as a regulated transmission asset would create a significant barrier to the competitive participation of electric storage, and other alternatives, and to individual choices by customers to install storage or pay for reliability or other end use goals. Permitting market participants to invest at their own risk and customers to take actions based on their own preferences are consistent with competitive wholesale power markets.

## II. CONCLUSION

The Market Monitor respectfully requests that the Commission accept these comments.

Respectfully submitted,



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Jeffrey W. Mayes

Joseph E. Bowring  
Independent Market Monitor for PJM  
President  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8051  
[joseph.bowring@monitoringanalytics.com](mailto:joseph.bowring@monitoringanalytics.com)

General Counsel  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8053  
[jeffrey.mayes@monitoringanalytics.com](mailto:jeffrey.mayes@monitoringanalytics.com)

Howard J. Haas  
Chief Economist  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8054  
[howard.haas@monitoringanalytics.com](mailto:howard.haas@monitoringanalytics.com)

John Dadourian  
Senior Analyst  
Monitoring Analytics, LLC  
2621 Van Buren Avenue, Suite 160  
Eagleville, Pennsylvania 19403  
(610) 271-8050  
[john.dadourian@monitoringanalytics.com](mailto:john.dadourian@monitoringanalytics.com)

Dated: February 18, 2021

## CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy by email on those parties agreeing to receive service by email of the foregoing comments in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant) and the secretarial letter issued December 3, 2020, upon the following:

Coleen P. Kartychak, Esq.  
Retail Energy Supply Association  
698 Gamble Road  
Oakdale, PA 15071

Patrick McDonnell  
Acting Secretary  
Department of Environmental Protection  
Rachel Carson State Office Building  
PO Box 2063  
Harrisburg, PA 17105-2063

Darryl A Lawrence, Esq.  
Office of Consumer Advocate  
5th Floor Forum Place  
555 Walnut Street  
Harrisburg, PA 17101-1923  
*dlawrence@paoca.org*

Phillip Demanchick, Esq.  
Office of Consumer Advocate  
555 Walnut Street 5th Floor  
Forum Place  
Harrisburg, PA 17101  
*pdemanchick@paoca.org*

Due to inclement weather, the Market Monitor will perform service on parties not accepting email, postmarked no later than February 19, 2021, or as soon as practical thereafter. The Market Monitor requests waiver, to whatever extent necessary, to perform service in this manner.

Dated at Eagleville, Pennsylvania,  
this 18<sup>th</sup> day of February, 2021.



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Jeffrey W. Mayes  
General Counsel  
Monitoring Analytics, LLC

2621 Van Buren Avenue, Suite 160  
Eagleview, Pennsylvania 19403  
(610) 271-8053  
*jeffrey.mayes@monitoringanalytics.com*



transmission upgrades that AEP believes would otherwise be needed. AEP (at 2–3) “stresses that this Petition seeks a ruling only for a specific energy storage project, and AEP does not request generic findings that would apply to other storage projects that may be proposed as transmission solutions in PJM or elsewhere.”

A ruling granting the Petition will, of course, establish precedent, and that precedent could be invoked in support of classifying or reclassifying as a “transmission project” any power supply facility that the owner asserts would avoid investment in actual transmission facilities. Generation and transmission are frequently substitutes. That fact does not make generation facilities transmission facilities. Such a finding would abolish any meaningful distinction between generation and transmission assets. Such a finding would undermine electric industry restructuring and competition based regulation which depends upon unbundling power supply and transmission assets in order to permit competition among power suppliers.

## I. COMMENTS

### **A. Middle Creek ESP Is a Power Supply Facility and Should Not Be Classified and Treated as a Transmission Facility.**

Nothing in the Petition distinguishes the salient features of Middle Creek ESP or any other storage power supply facility from those of generation. All of AEP’s arguments could apply with equal force to combustion turbines as well as to batteries.

AEP is subject to cost of service regulation for generation and transmission, although the details of the regulatory rules differ. AEP does not explain why it prefers transmission cost of service regulation to generation cost of service regulation. AEP does not explain why it does not classify Middle Creek ESP as a generation asset and include the cost in Kentucky Power Company’s cost of service rates. AEP could then operate its generation asset in energy markets and offset at least some of the costs. The need to severely limit Middle Creek ESP’s operations arises because AEP proposes to classify it as a transmission project and not a power supply asset.

AEP pledges to operate the project only when transmission outages isolate the area of the grid where Middle Creek ESP would be located, from the rest of the grid. AEP states (at 4) that Middle Creek ESP “will discharge only when ... customers could not otherwise obtain power fed from the Middle Creek Station.” Any power supply could provide backup power. Such restrictions would not convert any power supply asset into transmission. AEP has not shown why Middle Creek ESP would be the type of power supply project best suited and most cost effective for providing backup power.

AEP relies on reversible representations on how it will operate the project.

AEP’s pledge to operate the Middle Creek ESP only when outages isolate certain customers from the grid does not change and is not relevant to the proper classification of Middle Creek ESP. Any power supply facility of any fuel type and of any size could be used in exactly the same manner. PJM applies the same essential principle whenever it dispatches a generation unit out of merit order consistent with system reliability.

AEP has not explained how its current statement of its intentions as to how it will operate Middle Creek ESP are binding. Easily reversed statements of intentions are not a reliable basis to grant the Petition. AEP could seek at any time convenient to it in the future to operate Middle Creek ESP in a different manner.

AEP asserts that operating its facility only when the area of grid where it is located is isolated from the rest of the grid will have no impact on competitive markets. The assertion is false. Middle Creek ESP deters investment in power supply at or electrically near Middle Creek location because there is no opportunity to compete with Middle Creek ESP. Middle Creek ESP would operate when market prices would be highest.

AEP fails to address how operation of the Middle Creek ESP would affect LMP in the area.

**B. Regulation through Competition Depends Upon Clear Distinctions Between Power Supply and Transmission.**

Vertically integrated utilities recognize the tradeoffs between transmission and generation facilities and their planning process accounts for those tradeoffs. AEP continues



to operate under the cost of service model, but also participates in PJM and its competitive markets. Rules established for AEP and its particular circumstances can influence the implementation of market rules in PJM without any showing of how they are relevant to PJM markets.<sup>3</sup>

The PJM market rules treat electric storage facilities (primarily batteries in the filings) as comparable to generation in wholesale power markets. PJM's approach, consistent with the restructuring orders, clearly demarcates the transmission and generation functions, and requires unbundling of those functions.<sup>4</sup>

In addition, the Commission has made and is making a special effort to ensure the viability of the participation model for electric storage in PJM and other RTO markets.<sup>5</sup> Order No. 841 seeks (at P 1) to "remove barriers to the participation of electric storage resources in the [RTO/ISO markets]." Allowing transmission owners to develop electric storage and roll it into transmission rates constitutes a more significant barrier to the competitive participation of electric storage in PJM markets than any of the concerns

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<sup>3</sup> See, e.g., *American Electric Power Service Corporation*, Opinion No. 440, 88 FERC ¶ 61,141 (1999) (AEP's method for allocating capital costs to accounts for generating facilities developed within its vertically integrated franchise structure prior to joining PJM has been applied, with consideration of its continued appropriateness and relevance, to the allocation of costs capitals cost for generating facilities in the PJM market rules framework.).

<sup>4</sup> See, e.g., *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, FERC Stats. & Regs. ¶ 31,036 (1996) *mimeo* at 84–85. An exception was the provision allowing for cost of service recovery of reactive power capacity as an ancillary service. Alone among the ancillary services provided for in the restructuring orders, reactive capability is excluded from recovery through competitive markets. The result has been wasteful and unnecessary interference with the operation of the competitive market design.

<sup>5</sup> *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 841, 162 FERC ¶ 61,127 (2018) ("Order No. 841"), *order on reh'g*, Order No. 841-A, 167 FERC ¶ 61,154 (2019), *aff'd sub nom. Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, No. 19-1142 (D.C. Cir. July 10, 2020).

identified in Order No. 841. Consistent treatment of electric storage as power supply facilitates its participation in PJM and other RTO markets.

In a recent dissent in a matter involving another RTO's rules for classifying transmission assets, Commissioner Danly explained:

I oppose the order in this case as impermissibly blurring the line between generation and transmission. No matter how our order characterizes the function of energy storage facilities, the service contemplated by [MISO's] filing is accomplished through the discharge of energy from storage units into the MISO transmission system. That, in my view, is a generation function, not a transmission function.<sup>6</sup>

Commissioner Danly is correct to worry that misclassifying power supply assets conflicts with and undermines concepts essential to the restructuring orders: "The output of generation is amenable to being sold in a competitive market construct in a way that building long-term, capital-intensive transmission infrastructure is not."<sup>7</sup>

Transmission and generation have, and have always had, a symbiotic relationship in the provision of wholesale power. Transmission needs generation to function and generation needs transmission to function. Transmission can substitute for generation at the margin and generation can substitute for transmission at the margin. This relationship has always been a relatively unexamined area in the design of competitive wholesale power markets. For example, there is little if any explicit consideration of the impact of transmission planning on competitive generation investment in RTO/ISO market rules. Improvement is needed in these areas. Introducing confusion about what assets are classified as generation and what assets are classified as transmission frustrates potential reform and undermines the competitive markets.

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<sup>6</sup> *MISO*, 172 FERC ¶ 61,132 (2020).

<sup>7</sup> *Id.*

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**C. The Facts Underlying AEP's Petitions Would Need to Be Reviewed and Confirmed.**

AEP presents a Petition to decide a question of law and policy based on facts that it has presented. The Petition should be denied as a matter of law and policy even if every fact asserted by AEP is presumed true. If the Petition were granted in spite of the compelling reasons not to do so, then there would need to be an independent review and verification of the many assertions upon which AEP relies. Assertions of the probability of outages on the identified portion of the system would need to be reviewed and confirmed. Assertions of the costs of transmission solutions would need to be reviewed and confirmed. The choice of power supply solution would need to be reviewed and confirmed. The need for AEP to develop, own and/or operate such assets instead of alternatives would need to be reviewed and confirmed. There is no reason to presume the validity of any of AEP's assertions. Each assertion for the Middle Creek ESP and its treatment as a transmission project, or any similar future project, should be independently reviewed and confirmed before it is approved.

## 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  
Eagleville, Pennsylvania 19403  
(610) 271-8051  
*joseph.bowring@monitoringanalytics.com*

Jeffrey W. Mayes

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

Dated: August 21, 2020

## 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 21<sup>st</sup> day of August, 2020.



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Jeffrey W. Mayes

General Counsel

Monitoring Analytics, LLC

2621 Van Buren Avenue, Suite 160

Eagleville, Pennsylvania 19403

(610) 271-8053

*jeffrey.mayes@monitoringanalytics.com*