

COMMONWEALTH OF PENNSYLVANIA



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October 23, 2023

Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street  
Harrisburg, PA 17120

Re: Policy Proceeding- Utilization of Storage  
Resources as Electric Distribution Assets  
Docket No. M-2020-3022877

Dear Secretary Chiavetta:

Attached for electronic filing please find the Office of Consumer Advocate's Comments in the above-referenced proceeding.

Copies have been served per the attached Certificate of Service.

Respectfully submitted,

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Certificate of Service

4868-7868-0713

CERTIFICATE OF SERVICE

Policy Proceeding- Utilization of Storage :  
: Docket No. M-2020-3022877  
Resources as Electric Distribution Assets :

I hereby certify that I have this day served a true copy of the following document, the Office of Consumer Advocate's Comments, upon parties of record in this proceeding in accordance with the requirements of 52 Pa. Code §1.54 (relating to service by a participant), in the manner and upon the persons listed below:

Dated this 23<sup>rd</sup> day of October 2023.

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Dated: October 23, 2023  
4881-1462-4137

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Policy Proceeding- Utilization of Storage : Docket No. M-2020-3022877  
Resources as Electric Distribution Assets :

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COMMENTS OF THE OFFICE  
OF CONSUMER ADVOCATE

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Pursuant to the Proposed Policy Statement Order entered on August 24, 2023, at Docket M-2020-3022877, the Office of Consumer Advocate (OCA) submits these Comments regarding the definitions proposed by the Commission in its Proposed Policy Statement regarding the utilization of storage resources as electric distribution assets. The OCA appreciates the Commission providing this further opportunity for the OCA and other interested parties to comment on the proposed Energy Storage Asset Policy Statement.<sup>1</sup>

I. PROCEDURAL HISTORY

On December 3, 2020, a Secretarial Letter was issued on behalf of the Commission seeking comments from utilities and other stakeholders on potential future regulatory policies related to the utilization of electric storage within electric utility distribution planning. *Secretarial Letter Re: Policy Proceeding – Utilization of Storage Resources as Electric Distribution Assets, M-2020-3022877 (Issued Dec. 3, 2020) (2020 Letter)*. The *2020 Letter* invited interested parties to submit

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<sup>1</sup> The OCA was aided in the preparation of these comments by Rakon Energy, LLC. Rakon Energy, LLC is led by Rao Konidena. Mr. Konidena is an independent consultant focused on providing policy and testimony support, business development, and training in wholesale energy markets. Mr. Konidena was formerly a principal advisor for policy studies with Midcontinent ISO where he worked on energy storage and distributed energy resources.

written comments for the Commission's consideration within 30 days of publication in the Pennsylvania Bulletin.

Specifically, the *2020 Letter* sought input from various stakeholders on the following issues: (1) what applications can electric storage provide as a distribution asset for utilities that would facilitate improved reliability and resilience; (2) what are the defining characteristics of electric storage used for distribution asset planning as distinguished from generation resources and what would classify electric storage as a generation resource and therefore outside permitted distribution ratemaking and recovery; and (3) is it prudent for utilities to include electric storage in their distribution resource planning and, if so, where and under what circumstances and is it appropriate for utilities to include such investments in rate base? *2020 Letter* at 3.

On Saturday, December 19, 2020, the *2020 Letter* was published in the Pennsylvania Bulletin setting the due date for comments as Tuesday, January 19, 2021. On December 28, 2020, the OCA filed a Motion for an Extension of Time for Comments seeking a 30-day extension to submit Comments. A Secretarial Letter was issued on December 30, 2020, extending the due date for comments until February 18, 2021.

On February 18, 2021, the OCA submitted its Comments. *OCA Comments Re: Policy Proceeding- Utilization of Storage Resources as Electric Distribution Assets*, M-2020-3022877 (Filed Feb. 18, 2021) (*Initial Comments*). In its *Initial Comments*, the OCA recommended that the Commission should consider moving to integrated distribution planning (IDP), which is a comprehensive planning framework that requires, among other things, behind the-meter resource forecasting, hosting capacity analysis, and benefit/cost analysis of non-wires alternatives. The OCA also recommended that the Commission consider initiating a statewide, stakeholder proceeding regarding the adoption of IEEE 1547-2018.3. This national standard will ensure that

as Distributed Energy Resources interconnect to the distribution grid, they will have the capability and flexibility necessary to reach their full potential. *Initial Comments* at 1.

As to the three specific questions set out in the *2020 Letter*, the OCA provided that: (1) electric storage has the potential to provide a number of benefits to the distribution grid; (2) there is no clear answer as to every case regarding whether a storage asset is performing a distribution, generation or transmission function and, as such, a statewide collaborative may be needed to further explore this issue; and (3) the inclusion of storage assets in rate base could potentially be permissible, if at all, where the storage asset has been found to perform distribution functions and has been shown to be cost effective. *Initial Comments* at 7-8.

On August 12, 2021, the Commission issued a second Secretarial Letter in this docket seeking comments on an additional set of seven questions. *Secretarial Letter Re: Policy Proceeding – Utilization of Storage Resources as Electric Distribution Assets, Additional Questions*, M-2020-3022877 (Issued Aug. 12, 2021) (*2021 Letter*). The *2021 Letter* was published in the Pennsylvania Bulletin on August 28, 2021, and thus comments were due no later than September 27, 2021. On September 1, 2021, the Clean Air Council, Philadelphia Solar Energy Association, POWER Interfaith, the Union of Concerned Scientists and the Natural Resources Defense Council requested a 60-day extension of the September 27 date. The Commission granted the extension and set the new date for comments as November 29, 2021. On November 24, 2021, the OCA filed its further comments for Commission consideration. *OCA Comments Re: Policy Proceeding- Utilization of Storage Resources as Electric Distribution Assets, Additional Questions*, M-2020-3022877 (Filed Nov. 24, 2021) (*Further Comments*) In the *2021 Letter*, the Commission sought comments on the following questions:

1. What are the parameters that would allow for the use of energy storage on the distribution grid? For example, what factors should be used in the consideration of the energy-storage project? Should the energy-storage project meet certain thresholds and demonstrate certain requirements, E.g., demonstration of cost-effectiveness as compared to alternate measures, demonstration of need, required RFPs to solicit potential third-party providers, limitations on project size and scope, etc.?

OCA Response: The OCA proposed the use of Integrated Distribution Planning, no size limitations at the time of filing, and a weighing of the costs and benefits of any particular project.

2. What EDCs have undertaken energy-storage initiatives as a pilot program and what were the results and lessons learned?

OCA Response: The OCA responded with various examples from the Rakon Energy report of pilot programs across the country.

3. Under what circumstances is it appropriate to deploy energy storage as compared to traditional infrastructure upgrades?

OCA Response: The OCA proposed that electric storage is not the end all be all, it is merely one tool in the distribution planning toolbox and that with Integrated Distribution Planning, more benefits and efficiencies of energy storage may be realized.

4. Who should own an energy-storage asset? EDCs, third-party vendors, or some combination of both?

OCA Response: The OCA submitted that third-party vendors should be viewed as the preferred ownership structure, however in certain situations EDC ownership may be reasonable.

5. What processes should the Commission use to review requests to utilize energy storage as a distribution asset and recover associated costs?

OCA Response: The OCA submitted that Integrated Distribution Planning should be used to evaluate projects.

6. What cost recovery mechanisms should be implemented for the ownership and operation of energy-storage assets?

OCA Response: The OCA recommended that storage facilities be owned by third parties and that market services be administered by PJM.

7. What are the appropriate models and limitations necessary to allow energy storage to participate in wholesale power markets?

OCA Response: The OCA Submitted that the Commission should allow battery systems in both retail and wholesale markets, with safeguards. Energy-storage providers can be treated similar to how demand-response providers are for how much demand they have reduced and for how long.

*Further Comments* at 4-13.

On August 24th, 2023, the Commission issued a Proposed Policy Statement Order, seeking comments on the included Proposed Policy Statement. *Proposed Policy Statement Order*, M-2020-3022877 (Entered Aug. 24, 2023) (*2023 Order*). The *2023 Order* was published in the Pennsylvania Bulletin on September 23, 2023, and initial comments were thus due by October 23, 2023. In response to the 2023 Order, the OCA submits the following comments.



## II. COMMENTS

### A. Introduction

The Proposed Policy Statement included the following definitions for comment, as follows:

#### § 69.XXX1. Definitions.

The following words and terms, when used in this section and § 69.XXX2 have the following meanings, unless the context clearly indicates otherwise:

*EDC—Electric distribution company*—The term has the same meaning as defined in 66 Pa.C.S. § 2803 (relating to definitions).

*Electricity-storage asset*—A resource capable of receiving electric energy from the grid and storing it for later injection of electricity back to the grid.

*Non-wires solution*—An EDC investment and operating practice that can defer or replace the need for specific transmission and/or distribution projects, at lower total resource cost, by reliably reducing transmission congestion or distribution system constraints at times of maximum demand in specific grid areas. This term is synonymous with "non-transmission alternative" or "NTA" which is the term used by the National Regulatory Research Institution.

#### § 69.XXX2. Electricity-storage as a distribution system asset.

The Commission acknowledges that electricity-storage assets can assist in various engineered reliability solutions. As such, the Commission recognizes that electricity-storage assets can be used by EDCs to maintain or to increase the reliability or the resilience of the electric distribution system. The Commission encourages the consideration of these assets when cost effective and proper, specifically as an alternative non-wires solution. The Commission encourages EDCs to consider electricity-storage assets as part of their system planning.

*2023 Order, Annex A.*

The OCA proposes several additions and modifications to these definitions in order to improve clarity, consistency, and ensure that adequate guidance is provided within the definitions.

### B. Definition of Electricity-storage asset

A slight variance exists between the proposed Commission definition of “Electricity-storage asset” and the definition used by the Federal Energy Regulatory Commission (FERC). The Commission’s proposed definition of Electricity-storage asset is “A resource capable of receiving electric energy from the grid and storing it for later injection of *electricity* back to the grid”. Annex

A. (emphasis added). This definition differs from that used by FERC in Order 841 which defines an electric storage resource as “A resource capable of receiving electric energy from the grid and storing it for later injection of *electric energy* back to the grid”. Order No. 841, 162 FERC ¶ 61,127 at 29. (Emphasis added).

The OCA proposes that *electricity* in the Commission’s proposed definition be replaced with *electric energy* so that the Commission definition of electricity-storage asset matches the FERC definition of an electric storage resource. The OCA’s proposed definition would read “Electricity-storage asset: A resource capable of receiving electric energy from the grid and storing it for later injection of electric energy back to the grid.”

C. Definition of Non-wires solution

The definition of “Non-wires solution” as proposed by the Commission is unnecessarily narrow, and as currently written, implies that only a Electric Distribution Company (EDC) may invest in and operate a Non-wires solution. The Commission’s proposed definition of “Non-wires solution” is “An Electric Distribution Company (EDC) investment and operating practice that can defer or replace the need for specific transmission and/or distribution projects, at lower total resource cost, by reliably reducing transmission congestion or distribution system constraints at times of maximum demand in specific grid areas.” *2023 Order*, Annex A. In its Proposed Policy Statement, the Commission provides that its proposed definition is synonymous with the National Regulatory Research Institution’s (NRRI) definition for “non transmission alternative”. *Id.*

The OCA proposes a modification of the definition proposed by the Commission to more closely track the definition of “non transmission alternative” used by NRRI in the body of the NRRI’s *Getting Signals Straight: Modeling, Planning, and Implementing Non-Transmission Alternatives* which states “A non-transmission alterative is any combination of equipment and

operating practices that is capable of deferring or replacing the need for a specific electric power transmission project, by reliably alleviating transmission congestion in a specific area.” Tom Stanton, *Getting Signals Straight: Modeling, Planning and Implementing Non-Transmission Alternatives*, 1 (NRRI 2015)<sup>2</sup>. This definition notably differs from the proposed definition by the Commission as it does not mention EDCs.

The OCA is concerned that the Commission’s proposed definition implies that only EDCs are capable of owning these non-wires solutions, when a variety of other third-party developers or customers would be capable of owning storage assets and providing EDCs the potential ability to defer or replace the need for a specific electric power project.

Given the Commission’s agreement that a narrow definition of Electricity-storage assets should be avoided, it makes sense to avoid the unnecessary narrowing of the ownership as to non-wires solutions. *2023 Order* at 12. The OCA Proposes that non-wires solution be defined as follows: A non-wires solution is any combination of equipment and operating practices that can defer or replace the need for specific transmission and/or distribution projects at lower total resource cost, by reliably reducing transmission congestion or distribution system constraints at times of maximum demand in specific grid areas.

D. Storage As A Distribution Asset

According to the U.S. Energy information Administration (EIA) the average power interruption due to a major event (such as a snowstorm, hurricane, or wildfire) is about seven hours. Rosalyn Berry, *U.S. electricity customers averaged seven hours of power interruptions in*

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<sup>2</sup> Available at: <https://pubs.naruc.org/pub/FA86CD02-A0F1-EADA-2240-D4932060892F>

2021, (EIA 2022).<sup>3</sup> Energy-storage assets do not have to be owned by EDCs to alleviate some of these extended outages. In its Proposed Policy Statement, the Commission provides the following:

**§ 69.XXX2. Electricity-storage as a distribution system asset.**

The Commission acknowledges that electricity-storage assets can assist in various engineered reliability solutions. As such, the Commission recognizes that electricity-storage assets can be used by EDCs to maintain or to increase the reliability or the resilience of the electric distribution system. The Commission encourages the consideration of these assets when cost effective and proper, specifically as an alternative non-wires solution. The Commission encourages EDCs to consider electricity-storage assets as part of their system planning.

*2023 Order, Annex A.*

While the OCA supports the Commission’s statement of policy on this issue, it encourages the PUC to clarify that reliability improvements do not depend on EDC ownership of the asset but rather the EDC’s ability to utilize, dispatch, and coordinate storage for reliability purposes. While this may be easier under the auspices of EDC-ownership, the Commission should clarify that the system planning should occur regardless of ownership of the storage asset. The OCA notes that Massachusetts has a program where customer-owned battery storage systems are deployed during periods of peak demand in order to lessen the need for additional electric resources.<sup>4</sup> As a part of this docket, the Commission should review programs like this in order to potentially provide further guidance to the EDCs and other stakeholders.

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<sup>3</sup> Available at: <https://www.eia.gov/todayinenergy/detail.php?id=54639>

<sup>4</sup> A summary of the program is available at [https://www.masssave.com/-/media/Files/PDFs/Save/Residential/MA-Resi-Battery-Program-Materials---Final--5-4-2023\\_.pdf](https://www.masssave.com/-/media/Files/PDFs/Save/Residential/MA-Resi-Battery-Program-Materials---Final--5-4-2023_.pdf)

III. CONCLUSION

The Office of Consumer Advocate respectfully submits these Comments regarding the Proposed Policy Statement.

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