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E-File

October 23, 2023

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North 4th Street, 2nd Floor North
Harrisburg, PA 17120

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

Dear Secretary Chiavetta:

Enclosed for filing on behalf of PPL Electric Utilities Corporation (“PPL Electric”) are PPL Electric’s Comments in the above-captioned proceeding. The enclosed Comments are being filed pursuant to the Proposed Policy Statement Order entered in this matter on August 23, 2023 and published in the *Pennsylvania Bulletin* on September 23, 2023.

Pursuant to 52 Pa. Code § 1.11, the enclosed document is to be deemed filed on October 23, 2023, which is the date it was filed electronically using the Commission’s E-filing system.

If you have any questions, please do not hesitate to contact me.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Michael J. Shafer", is written over a light blue horizontal line.

Michael J. Shafer

Enclosure

cc via email: David Edinger (dedinger@pa.gov)
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- 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.?
- 2) What EDCs have undertaken energy-storage initiatives as a pilot program and what were the results and lessons-learned?
- 3) Under what circumstances is it appropriate to deploy energy-storage as compared to traditional infrastructure upgrades?
- 4) Who should own an energy-storage asset? EDCs, third-party vendors, or some combination of both?
- 5) What processes should the Commission use to review requests to utilize energy-storage as a distribution asset and recover associated costs?
- 6) What cost recovery mechanisms should be implemented for the ownership and operation of energy-storage assets?
- 7) What are the appropriate models and limitations necessary to allow energy-storage to participate in wholesale power markets?

(*Id.*, pp. 4-7.)

PPL Electric timely filed its Comments regarding the Commission’s August 12, 2021, questions on November 9, 2021.

On August 24, 2023, the Commission issued a Proposed Policy Statement Order addressing comments to its August 12, 2021, Secretarial Letter and issuing the proposed Energy Storage Asset Policy Statement (“Policy Statement”) for comment. The Commission agreed with commenters that “the Commission should avoid narrow definitions of electricity-storage and that every project that may be suitable for electricity-storage should be assessed and reviewed on its individual merits.” (Aug. 23, 2023, Proposed Policy Statement Order, p. 12.) The Commission also concurred that “EDCs’ primary goal should be the safe, reliable delivery of electricity to customers that and that EDCs’ usage of electricity-storage should meet this goal.” (*Id.*)

Ultimately, the Commission proposed the following definitions and policy statement:

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.

...

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.

(*Id.*, Annex A.)

PPL Electric appreciates the opportunity to provide input on the Policy Statement and hereby files these Comments in response.

II. COMMENTS

A. ENERGY STORAGE ASSETS EFFECTIVELY INCREASE RELIABILITY

PPL Electric supports using energy-storage assets on the distribution system for distribution-related purposes and being categorized as distribution assets. As explained in the Company’s Comments on the December 3, 2020, Secretarial Letter, PPL Electric installed a 50-kilowatt (“kW”) battery in the Harrisburg area in 2018 and, therefore, has experience with utilizing energy-storage assets to improve the reliability of its distribution system. This application was considered against other alternatives, including building a tie to another distribution circuit, to increase reliability for eight customers at the end of a high outage radial line; however, the energy-

storage system was determined to be the most cost-effective solution to address the customers' reliability concerns.

Additional energy storage use cases include increasing reliability to commercial and industrial ("C&I") customers who may have sensitive equipment and manufacturing processes or perishable products. For these C&I customers, an outage can result in substantial losses of revenue from lost customers, damaged equipment, or lost products. Thus, energy-storage assets can provide a key benefit to the distribution system—manage outages and improve reliability consistent with "EDCs' primary goal" of providing "safe, reliable delivery of electricity to customers." (Proposed Policy Statement Order, p. 12.)

For these reasons, energy-storage assets on the distribution system can be an effective solution to provide benefits to both residential and C&I customers. Therefore, PPL Electric continues to support the Commission's efforts to encourage the use and consideration of energy-storage assets on EDCs' distribution systems.

Nevertheless, PPL Electric recommends certain changes to the Commission's Policy Statement that will better support those efforts and clarify the definition and use of energy-storage assets.

B. RECOMMENDED CHANGES TO § 69.XXX1

PPL Electric recommends that the Commission implement the following changes to its Policy Statement to prevent limiting EDCs' ability to utilize energy-storage assets as non-wire solutions to distribution system planning and concerns, consistent with the Commission's position "that every project that may be suitable for electricity-storage should be assessed and reviewed on its individual merits." (*Id.*)

1. “Electricity-Storage Asset”

The Policy Statement defines “electricity-storage asset” as “[a] resource capable of receiving electric energy from the grid and storing it for later injection of electricity back to the grid.” (*Id.*, Annex A.) PPL Electric recommends the following changes to improve this term and definition.

First, PPL Electric suggests that the Commission change the term from “electricity-storage asset” to “energy-storage asset” to avoid limiting EDCs’ ability to utilize different technologies as non-wires solutions. This would more accurately reflect the Commission’s intention to “avoid narrow definitions.” (*Id.*) The new language would be more inclusive of other energy storage technologies, such as pump storage and thermal storage, which store energy but not necessarily electricity.

Second, the current definition’s use of the word “injection” may be troublesome because there are other ways energy storage assets may be used other than injection back into the grid, such as through load management and absorbing generation. Indeed, in the Proposed Policy Statement Order, the Commission agreed with commenters’ statements that “it is impossible to list all the cases where [energy]-storage may be appropriate compared to traditional investments” and as such, the terminology and definition should provide for a broad range of technologies and uses available to distribution systems. (Proposed Policy Statement Order, p. 12.) Thus, PPL Electric proposes that the renamed term “energy-storage asset” be defined as follows: “A resource that captures energy for use at a later time. Uses include improving system reliability, reducing system constraints, and balancing supply and demand.” This broader definition resolves the issues with the current definition’s narrow scope and provides better flexibility for EDCs to leverage the benefits of energy-storage assets.

2. “Non-Wires Solution”

The Policy Statement defines “non-wires solution” as “[a]n 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. This term is synonymous with “non-transmission alternative” or “NTA” which is the term used by the National Regulatory Research Institution (NRRI).” (*Id.*, Annex A.) The Company proposes certain changes to this definition as well.

Specifically, PPL Electric recommends that the portion of the definition stating “by reliably reducing transmission congestion or distribution system constraints at times of maximum demand in specific grid areas” should be stricken from the definition because energy-storage assets can provide benefits beyond just providing electricity back to the grid during peak demand periods, such as improving reliability, load management, and absorbing generation. Including such a limitation on non-wires solutions does not comport with the Commission’s view of “electricity-storage as another tool for EDCs to use to solve electric distribution system problems.” (*Id.*, p. 12.)

This clause should also be stricken from the definition of “non-wires solution” due to discrepancies between the Commission’s definition and the National Regulatory Research Institution’s (NRRI) definition of “non-transmission alternative” or “NTA.”¹ NRRI’s definition of “non-transmission alternatives” does not reference “system constraints,” either on the

¹ Compare Aug. 23, 2023 Proposed Policy Statement Order, p. 5 (“NRRI describes an NTA as ‘electric utility system investments and operating practices that can defer or replace the need for specific transmission projects, at lower total resource cost, by reliably reducing transmission congestion at times of maximum demand in specific grid areas.’”), with *id.*, p. 11 (“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.”) (emphasis added).

distribution or transmission system. Therefore, the Commission's definition of "non-wires solution" is not "synonymous" with NRRI's definition of "non-transmission alternatives," despite the Commission's statement to the contrary in the Policy Statement.

Lastly, the Company recommends that "at lower total resource cost" be stricken from the definition. Doing so would retain the prudent investment standard applied to all other distribution system upgrades and provide EDCs flexibility in considering the benefits of energy-storage assets. Additionally, this would ease the concerns of commenters concerning how cost effectiveness should be considered when deploying these solutions. (*See id.*, p. 6.) In the end, EDCs' investments in energy-storage assets should be treated no differently from investments in any other capital projects that are intended to improve the safety and reliability of the distribution system.

PPL Electric proposes the following definition for "non-wires solution" as "[a]n Electric Distribution Company (EDC) investment and operating practice that can defer or replace the need for traditional wired transmission and/or distribution projects."

III. CONCLUSION

PPL Electric appreciates the opportunity to provide these Comments and respectfully requests that the Commission take these Comments into consideration in developing its next steps.

Respectfully submitted,



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