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File #: 193598

December 9, 2024

VIA ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

**Re: Petition of PPL Electric Utilities Corporation for Approval of its Act 129 Phase IV
Energy Efficiency and Conservation Plan
Docket No. M-2020-3020824**

Dear Secretary Chiavetta:

Enclosed for filing is PPL Electric Utilities Corporation's ("PPL Electric" or the "Company") Petition for Reconsideration of Staff Action, in which the Company seeks reconsideration of the Bureau of Technical Utility Services' ("TUS") November 18, 2024 Secretarial Letter denying PPL Electric's Petition for Approval of a Minor Change to Its Phase IV Act 129 Energy Efficiency and Conservation Plan.

As set forth in the Petition for Reconsideration of Staff Action, PPL Electric respectfully requests expedited review and consideration by the Pennsylvania Public Utility Commission.

Copies of the filing are being provided as indicated on the Certificate of Service.

Respectfully submitted,



Devin Ryan

DTR/dmc

Rosemary Chiavetta, Secretary
December 9, 2024
Page 2

Enclosures

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Scott Thomas (*via Email sjthomas@pa.gov*)
Office of Special Assistants (*via Email ra-OSA@pa.gov*)
Certificate of Service

CERTIFICATE OF SERVICE
(Docket No. M-2020-3020824)

I hereby certify that a true and correct copy of this filing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

VIA E-MAIL

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Dated: December 9, 2024


Devin T. Ryan

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Petition of PPL Electric Utilities Corporation :
for Approval of its Act 129 Phase IV Energy : Docket No. M-2020-3020824
Efficiency and Conservation Plan :

**PETITION OF PPL ELECTRIC UTILITIES CORPORATION FOR
RECONSIDERATION OF STAFF ACTION**

TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION:

Pursuant to 52 Pa. Code § 5.44 and the procedures set forth in the Pennsylvania Public Utility Commission’s (“Commission”) *Minor Plan Change Order*,¹ PPL Electric Utilities Corporation (“PPL Electric” or the “Company”) hereby submits this Petition for Reconsideration² of the Bureau of Technical Utility Services’ (“TUS”) decision set forth in its November 18, 2024 Secretarial Letter (“Secretarial Letter”), wherein TUS denied the Company’s unopposed Petition for Approval of a Minor Change to its Act 129 Phase IV Energy Efficiency and Conservation (“EE&C”) Plan (“Petition”).³

TUS’s denial of the Petition is flawed and should be reversed. PPL Electric proposed a **single, unopposed minor EE&C Plan change**, under which the Company would add a Residential Electric Vehicle (“EV”) Charging Pilot Program (“EV Charging Pilot Program” or “Pilot Program”) that would have no impact to the overall Phase IV EE&C Plan’s budget or the existing Commission-approved Residential pilot program budget. Under the EV Charging Pilot

¹ See *Energy Efficiency and Conservation Program*, Docket No. M-2008-2069887, p. 19 (Order entered June 10, 2011) (“*Minor Plan Change Order*”).

² Although styled as a Petition for Reconsideration in accordance with Section 5.44 of the Commission’s regulations, the *Duick* standard is inapplicable, as that scope of review is applicable only to requests for reconsideration of final Commission decisions pursuant to Section 703 of the Public Utility Code. *Duick v. Pa. Gas & Water Co.*, 56 Pa. P.U.C. 553 (1982).

³ The Secretarial Letter stated that “Parties may seek reconsideration of these directives by petitioning the Commission within 20 days after service of this Secretarial Letter. See 52 Pa. Code § 5.44 (relating to petitions for appeal from actions of the staff).” (Secretarial Letter, p. 4.) Therefore, the Company’s Petition is timely filed.

Program, the Company will incentivize the adoption of connected Level 2, ENERGY STAR certified smart chargers through dealership partnerships and customer downstream rebates and instant discounts. PPL Electric expects participation to be 1,000 customers or less and cost between \$500,000 and no more than \$1 million.

The proposed minor change is just and reasonable and should be approved. As explained in PPL Electric's Petition, PPL Electric is proposing the EV Charging Pilot Program because the Company expects EV adoption to increase significantly over the next several years, and the Pilot Program will help the Company understand the potential impact on its distribution system as well as energy efficiency opportunities with EV charging. Indeed, the Company will track and report on the data associated with the EV chargers, including customer participation, customer marketing and installation preferences, and charging load shapes for customers that provide data authorization. PPL Electric will use this information to help inform EE&C planning for a potential future phase of Act 129. Additionally, as stated previously, the Pilot Program's costs will be fully covered by the existing \$3 million budget for Residential pilot programs in the Phase IV EE&C Plan.

TUS's reasons for denying the Company's well-designed proposal have no merit and should be rejected. As explained in more detail herein, the Commission should reverse TUS's decision because: (1) TUS failed to render its decision by the required deadline and, instead, delayed its ruling by weeks without legally supportable justification; (2) TUS erroneously contends that an Interim Measure Protocol ("IMP") for ENERGY STAR-certified Level 2 smart chargers would obviate the need for the Pilot Program; (3) the Company's proposal is modest and would be accommodated fully by the existing Commission-approved budget for Residential pilot programs; and (4) none of the parties to this proceeding, which have wide-ranging and often

diverging views, disputed the Company's proposal, which, in and of itself, proves that PPL Electric's Petition is just and reasonable and should be approved.

For these reasons, and as further explained herein, PPL Electric respectfully requests that the Commission reverse TUS's decision and approve the Company's Petition without modification. To help ensure that the EV Charging Pilot Program is not adversely affected by any further delay, PPL Electric respectfully asks that the Commission review this Petition for Reconsideration of Staff Action on an expedited basis. In support of its Petition for Reconsideration of Staff Action, PPL Electric states as follows:

I. BACKGROUND

1. On November 30, 2020, PPL Electric filed its initial Phase IV EE&C Plan with the Commission pursuant to Act 129 and various related Commission orders. PPL Electric's Phase IV EE&C Plan included a broad portfolio of energy efficiency and energy education programs and initiatives. PPL Electric's portfolio of programs was designed to provide customer benefits and to meet the energy conservation and demand reduction goals set forth in Act 129 and related Commission orders. The initial Phase IV EE&C Plan included a range of energy efficiency programs that included every customer sector in PPL Electric's service territory. These programs are the key components of a comprehensive electric energy efficiency initiative designed to achieve the Company's required energy conservation and demand reduction goals.

2. The Commission approved PPL Electric's Phase IV EE&C Plan on March 25, 2021. *See Petition of PPL Electric Utilities Corp. for Approval of its Act 129 Phase IV Energy Efficiency and Conservation Plan*, Docket No. M-2020-3020824, pp. 106-07 (Order entered Mar. 25, 2021) ("*March 2021 Order*").

3. On December 30, 2022, PPL Electric filed a Petition for Approval of Changes to Its Act 129 Phase IV EE&C Plan (“Revision 1”).

4. On April 27, 2023, the Commission entered an Order approving Change Nos. 1 through 4, 6, and 9 through 11 and referring Change Nos. 5, 7, and 8 to the Office of Administrative Law Judge for hearings.

5. On June 30, 2023, the Company, Office of Small Business Advocate (“OSBA”), PP&L Industrial Customer Alliance (“PPLICA”), and the Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania (“CAUSE-PA”) filed a Joint Petition for Approval of Settlement of All Issues that resolved fully Revision 1 (“Revision 1 Settlement”)

6. On July 25, 2023, the Commission served the Recommended Decision of Deputy Chief Administrative Law Judge Mark A. Hoyer (“ALJ Hoyer”) and Administrative Law Judge Emily I. DeVoe (“ALJ DeVoe”) recommending approval of the Revision 1 Settlement with modification.

7. On August 24, 2023, the Commission entered an Order adopting the Recommended Decision and approving the Revision 1 Settlement with modification.

8. On February 8, 2024, PPL Electric filed a Petition for Approval of a Change to Its Act 129 Phase IV EE&C Plan (“Revision 2”).

9. On April 25, 2024, the Commission entered an Order approving Revision 2.

10. On June 13, 2024, PPL Electric filed a letter providing the program description of its EV Charging Pilot Program, pursuant to Section 9.1.4 of its Commission-approved Phase IV EE&C Plan, which requires the Company to “submit descriptions of any pilot programs or proposed technology additions to the Pa PUC and stakeholders prior to implementation.” Phase

IV EE&C Plan, p. 181. A copy of that pilot program description filing is attached hereto as **Appendix A**.

11. On June 18, 2024, the Commission served TUS's data requests asking for information about the EV Charging Pilot Program. A copy of those data requests is attached hereto as **Appendix B**.

12. On July 3, 2024, PPL Electric timely filed answers to TUS's data requests. A copy of those answers is attached hereto as **Appendix C**.

13. On July 26, 2024, PPL Electric filed Amendment 4 to its Residential Conservation Service Provider ("CSP") Contract to add its EV Charging Pilot Program.

14. On September 6, 2024, a Secretarial Letter was issued in which TUS: (1) rejected Amendment 4 to the Residential CSP Contract to add the EV Charging Pilot Program and (2) concluded that the EV Charging Pilot Program must be added explicitly to the Phase IV EE&C Plan through a minor plan change petition.

15. On September 19, 2024, PPL Electric filed its Petition.

16. On October 16, 2024, the Commission served TUS's data requests asking for information about the Petition. A copy of those data requests is attached hereto as **Appendix D**.

17. On October 22, 2024, PPL Electric timely filed answers to TUS's data requests. A copy of those answers is attached hereto as **Appendix E**.

18. On October 31, 2024, PPL Electric submitted supplemental answers to subparts (a) and (b) of TUS's data requests. A copy of those supplemental answers is attached hereto as **Appendix F**.

19. On November 18, 2024, a Secretarial Letter was issued in which TUS rejected PPL Electric's Petition.

II. ARGUMENT

A. THE COMMISSION SHOULD REVERSE TUS'S DECISION AND APPROVE THE COMPANY'S SINGLE, UNOPPOSED MINOR EE&C PLAN CHANGE

20. The Commission should reverse TUS's decision and approve PPL Electric's proposed minor EE&C Plan change.

21. As a preliminary matter, the proposed minor change was unopposed.

22. Given that the Petition was served on all the parties in the Phase IV EE&C Plan proceeding, which represent a wide and differing set of interests, the lack of opposition (in and of itself) is strong evidence that the proposed minor change is just and reasonable.

23. Even still, TUS denied the Company's Petition.

24. As alleged support for denying PPL Electric's proposal, TUS claimed that: (1) TUS was allowed to delay its ruling beyond the deadline to rule on minor plan changes because "PPL's Petition was incomplete" and "was not complete until PPL filed its supplemental response to staff's data requests on October 31, 2024"; (2) "a more cost-effective and efficient option would be application of deemed savings, via establishment of an Interim Measure Protocol, for ENERGY STAR-certified Level 2 residential EV chargers," as TUS maintains that "[t]his approach will eliminate the need for a pilot program and all related costs"; (3) "[i]f PPL contemplates analysis of load shifting to off-peak periods, based on various rate structures, such investigation was not suggested and would be most appropriate as part of a potential EV charging Time-of-Use tariff filing." (Secretarial Letter, p. 4.)

25. As explained in the following section, TUS's denial of the Petition was flawed and should be reversed.

1. TUS Failed to Meet Its Deadline to Rule on PPL Electric's Petition

26. TUS failed to meet the deadline imposed by the *Minor Plan Change Order* to issue a ruling on PPL Electric's Petition.

27. Under the expedited process for minor plan changes, TUS's decision on the Company's proposal was due **within 35 days** of the Petition's filing or, within 45 days if TUS extended its consideration period by 10 days.⁴ As such, TUS's ruling was due by October 24, 2024, and no later than November 4, 2024.

28. Yet, TUS **took 60 days** (i.e., until November 18, 2024) to issue the Secretarial Letter denying PPL Electric's Petition.

29. TUS tries to justify the delayed ruling by claiming that PPL Electric's "Petition was incomplete and therefore required staff to issue data requests to PPL." (Secretarial Letter, p. 4.) However, this attempt to justify the delayed ruling should be rejected.

30. First, nothing in the *Minor Plan Change Order* authorizes TUS to delay ruling on minor plan change petitions for an indefinite period that it deems to be incomplete. TUS must approve the Petition, deny the Petition, or refer the matter to the Office of Administrative Law Judge ("OALJ") within those 35 days or, in its discretion, extend the consideration period by an additional 10 days. *See Minor Plan Change Order*, p. 19. Thus, if TUS believed that the Petition was unsupported, then it should have denied the Petition or referred the matter to OALJ within 35 to 45 days.

31. By taking 60 days to issue its ruling, TUS unnecessarily delayed PPL Electric's ability to seek reconsideration of TUS's action. Given the need to stand up the EV Charging Pilot Program in sufficient time before the end of Phase IV, this delay has unduly impeded the

⁴ *Minor Plan Change Order*, p. 19.

Company's ability to undertake the Pilot Program on time. As the Company originally laid out in its pilot program description on June 12, 2024, and as noted in TUS's data requests and the Company's answers thereto, PPL Electric anticipates a 6-month enrollment period with a 12-month data collection period for the pilot program. (Appendix A, p. 8; Appendix B, p. 4; Appendix C, p. 9.) With only approximately 17 months until the start of Phase V EE&C Plan, a delay in approval of the Company's Petition adversely affects PPL Electric's ability to implement the program and gather data about the measure's effectiveness in advance of Phase V.

32. Second, contrary to TUS's claim, the Company's Petition contained all the information and materials required by the *Minor Plan Change Order* and, in that respect, was not "incomplete." (Secretarial Letter, p. 4.) The *Minor Plan Change Order* required PPL Electric to provide "sufficient documentation" to justify the Company's proposal, which includes, but is not limited to, "the affected pages of the plan, a redlined version of the affected pages, and an explanation of how the proposed minor changes affect the previously approved plan."⁵ The Company met that requirement by providing details about the proposal in the Petition, along with a black-line Phase IV EE&C Plan showing the proposed change with its Petition. The fact that TUS had questions about the Petition does not mean the Petition was incomplete or failed to comply with the PUC's *Minor Plan Change Order*.

33. In fact, TUS is essentially repeating its error from earlier this year in FirstEnergy Pennsylvania Electric Company's ("FE PA") Phase IV EE&C Plan proceeding.⁶ There, TUS denied FE PA's Petition for a Minor Plan Change because, among other reasons, TUS claimed

⁵ *Minor Plan Change Order*, p. 18.

⁶ See *Joint Petition of Metropolitan Edison Co., Pennsylvania Electric Co., Pennsylvania Power Co. and West Penn Power Co. for Consolidation of Proceedings and Approval of a Minor Change to their Act 129 Phase IV Energy Efficiency and Conservation Plan*, Docket Nos. M-2020-3020820, *et al.* (Order entered Feb. 22, 2024) ("*FirstEnergy Minor Plan Change Order*").

that the company failed to provide “sufficient documentation to support” the “Proposed Plan Modification.”⁷ The Commission reversed TUS’s decision, holding that the company provided “sufficient documentation to support” the “Proposed Plan Modification” by setting forth in its petition that “Proposed Plan Modification would not increase the overall costs to any customer class, nor would it have any effect on any budget, savings targets, or TRC figures set forth in the Company’s Plan.”⁸ In the case at bar, PPL Electric likewise explained that the proposed change would not increase the overall costs to any customer class, that the EV Charging Pilot Program’s costs would be fully accommodated by the existing Residential pilot program budget, and that the overall TRC benefit-cost ratio of the revised EE&C Plan would remain 1.15.⁹ Therefore, the Commission should similarly reverse TUS’s decision here.

34. Third, TUS incorrectly tries to justify the delay on the need to propound data requests. In actuality, TUS previously propounded similar data requests at this docket when PPL Electric filed its Amendment 4 to the Residential CSP Contract to implement the EV Charging Pilot Program. (*Compare* Appendix B, *with* Appendix D.) PPL Electric answered those data requests fully. (*See* Appendix C.) Thus, TUS already had much of the information it requested in its data requests that were propounded after the Petition’s filing.

2. TUS Fails to Recognize that an Interim Measure Protocol Will Not Obviate the Need for the EV Charging Pilot Program

35. TUS also errs in finding that “a more cost-effective an efficient option would be application of deemed savings, via establishment of an Interim Measure Protocol [‘IMP’], for ENERGY STAR-certified Level 2 residential EV chargers” and that such an IMP would “eliminate the need for a pilot program and all related costs. (Secretarial Letter, p. 4.)

⁷ *Id.*, p. 11.

⁸ *Id.*, p. 18.

⁹ (*See* Petition, pp. 5-6.)

36. TUS overlooks how the EV Charging Pilot Program is designed to gain valuable data about EV chargers that could, among other purposes, help inform EV charging rate design by gathering data on charging load shapes for customers that provide data authorization. (Petition, p. 7.) An IMP would not provide such data. Therefore, TUS's denial of the Petition unduly hampers PPL Electric's ability to gain data that could help inform EV rate design.

37. The Company also anticipates achieving 60,500 kWh and 7.13 kW of savings from the EV Charging Pilot Program. (Appendix F, p. 7.)

38. In addition, TUS's logic is backwards. Even if creating an IMP that would allow ENERGY STAR-certified Level 2 residential EV chargers would obviate the need for a pilot program, PPL Electric would still need Commission approval of an EE&C Plan change to offer those chargers as an EE&C measure.

39. Therefore, even with an IMP, PPL Electric would need to file a Petition for a Minor or Major EE&C Plan Change.

3. The Company's Proposal Is Reasonable and Would Be Fully Accommodated within the Existing Residential Pilot Program Budget

40. The Company's proposal is reasonable and in the public interest.

41. As noted previously, under the EV Charging Pilot Program, the Company will incentivize the adoption of connected Level 2, ENERGY STAR certified smart chargers through dealership partnerships and customer downstream rebates and instant discounts. (Petition, p. 6.) PPL Electric expects participation to be 1,000 customers or less and cost between \$500,000 and no more than \$1 million. (Petition, p. 6.)

42. PPL Electric has proposed the EV Charging Pilot Program because the Company expects EV adoption to increase significantly over the next several years, and the Pilot Program

will help the Company understand the potential impact on its distribution system as well as energy efficiency opportunities with EV charging. (Petition, p. 7.)

43. To that end, the Company will track and report on the data associated with the EV chargers, including customer participation, customer marketing and installation preferences, and charging load shapes for customers that provide data authorization. (Petition, p. 7.) PPL Electric will use this information to help inform EE&C planning for a potential future phase of Act 129. (Petition, p. 7.)

44. Critically, the EV Charging Pilot Program's modest budget of \$500,000 to \$1 million would be fully accommodated within the existing budget for Residential pilot programs of \$3 million. (Petition, pp. 6-7.)

45. Furthermore, with Phase IV of Act 129 EE&C ending in May 2026 and the design of the Phase V EE&C Plans beginning next year, it is vital that PPL Electric be allowed to implement the pilot program on time to evaluate the viability of energy efficient EV chargers as an EE&C measure and see if they should be incorporated into the Company's Phase V EE&C Plan. (*See* Petition, p. 7.)

B. REQUEST FOR EXPEDITED REVIEW AND CONSIDERATION

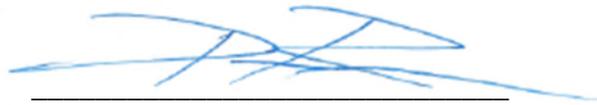
46. As noted previously, a delay in approval of the Company's Petition adversely affects PPL Electric's ability to implement the EV Charging Pilot Program and gather data about the measure's effectiveness in advance of Phase V.

47. To help ensure that the EV Charging Pilot Program is not adversely affected by any further delay, PPL Electric respectfully asks that the Commission review this Petition for Reconsideration of Staff Action on an expedited basis.

III. CONCLUSION

WHEREFORE, PPL Electric Utilities Corporation respectfully requests that the Pennsylvania Public Utility Commission, on an expedited basis, grant the instant Petition for Reconsideration of Staff Action, reverse the Bureau of Technical Utility Services' November 18, 2024 decision, and approve the Company's unopposed Petition for Approval of a Minor Change to its Act 129 Phase IV Energy Efficiency and Conservation Plan.

Respectfully submitted,



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Dated: December 9, 2024

Attorneys for PPL Electric Utilities Corporation

Appendix A



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June 12, 2024

VIA ELECTRONIC FILING

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Harrisburg, PA 17105-3265

**Re: Petition of PPL Electric Utilities Corporation for Approval of its Act 129 Phase IV Energy Efficiency and Conservation Plan
Docket No. M-2020-3020824**

Dear Secretary Chiavetta:

Under Section 9.1.4 of PPL Electric Utilities Corporation’s (“PPL Electric” or the “Company”) Act 129 Phase IV Energy Efficiency and Conservation (“EE&C”) Plan, the Company must “submit descriptions of any pilot programs or proposed technology additions to the Pa PUC and stakeholders prior to implementation.” Phase IV EE&C Plan, p. 181.

Pursuant to Section 9.1.4 of the Phase IV EE&C Plan, the Company respectfully submits this letter and the enclosed description of PPL Electric’s Residential Electric Vehicle (“EV”) Charging Pilot Program (“EV Pilot”). As set forth therein, the EV Pilot will incentivize new and existing EV owners to install smart EV chargers with data authorization in order to produce energy savings and insights on customer charging impacts. Through the EV Pilot, the Company will better prepare for growing EV adoption and will help lay the groundwork for future offerings. The EV Pilot will cost approximately \$875,000, including customer incentives, marketing, platform build, and administration, and will be funded entirely by the existing residential budget for pilot programs in the Phase IV EE&C Plan.

Copies of this filing are being provided as indicated on the Certificate of Service.

Rosemary Chiavetta
June 12, 2024
Page 2

Respectfully submitted,



Devin Ryan

DR/dmc
Enclosures

cc: Certificate of Service

CERTIFICATE OF SERVICE
(Docket No. M-2020-3020824)

I hereby certify that a true and correct copy of this filing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

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CAUSE-PA

Dated: June 12, 2024



Devin T. Ryan

PPL EU Residential EV Charging Pilot

Energy Efficiency & Conservation

Goals

This pilot will incentivize the adoption of smart chargers with data authorization by new and existing EV owners for energy savings and insights on customer charging impacts. This will prepare PPL EU for growing EV adoption and lay the groundwork for future offerings. **The proposed pilot will create value for PPL and all EDCs through:**



Customer Adoption Insights: Willingness of PPL customers to purchase, install and enable access to a networked, level 2 EVSE for the specified incentive.



Customer Satisfaction: Evaluate effectiveness of different marketing and outreach channels and appeal of post-purchase rebate and turnkey, installed options.



Act 129 Savings: Test PPL estimated savings calculations for potential savings in Phase V.



Understand EV Impact on System: Charging energy load shapes by vehicle type and usage profile

Pilot Framework

Technology Pilot Funding

- \$3M in residential sector pilot funding available for use within the approved PPL EE&C Plan.

Existing CSP

- Pilot will launch with existing CSP
- Existing Residential Program CSP has the necessary software and local programs teams available
 - CSP implements 100+ active EV pilots and programs across the U.S.

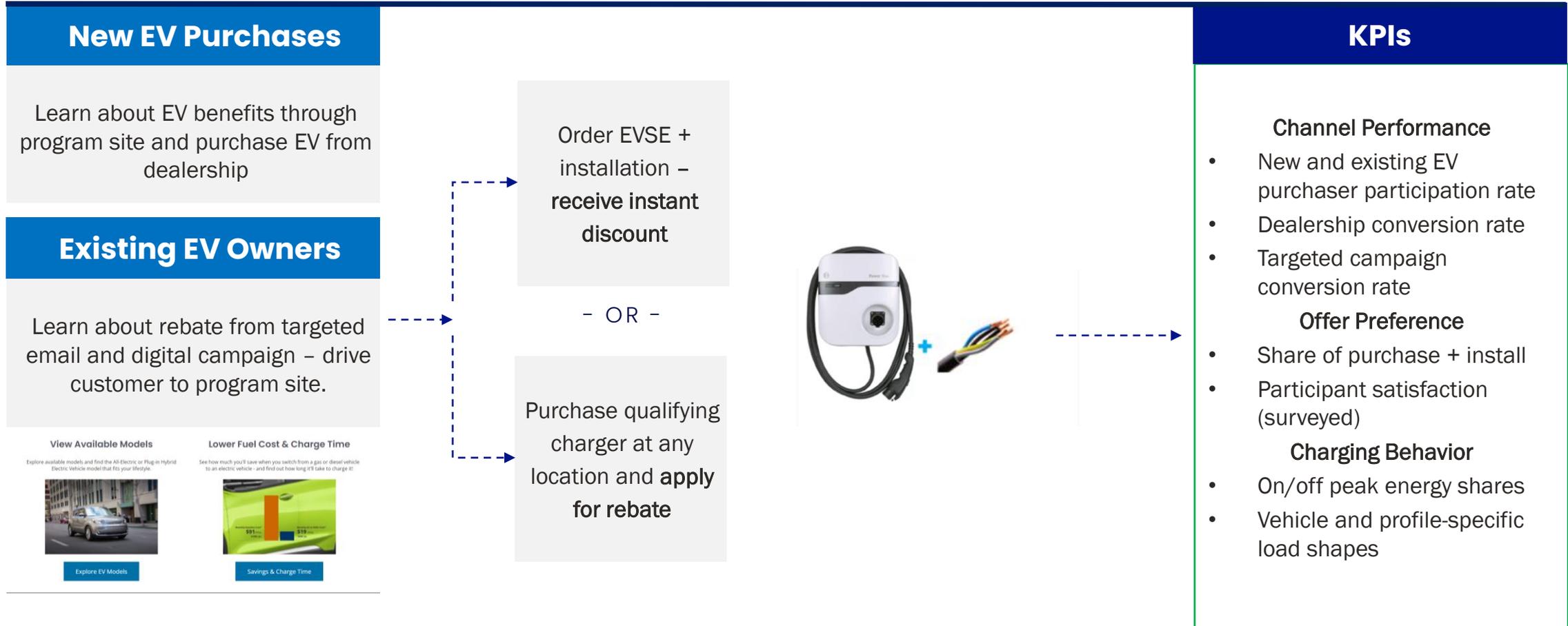
Requirements

- PUC notification (SWE/TUS) provided
- Pilot will align with Act 129

ENGAGE

ENABLE

MEASURE



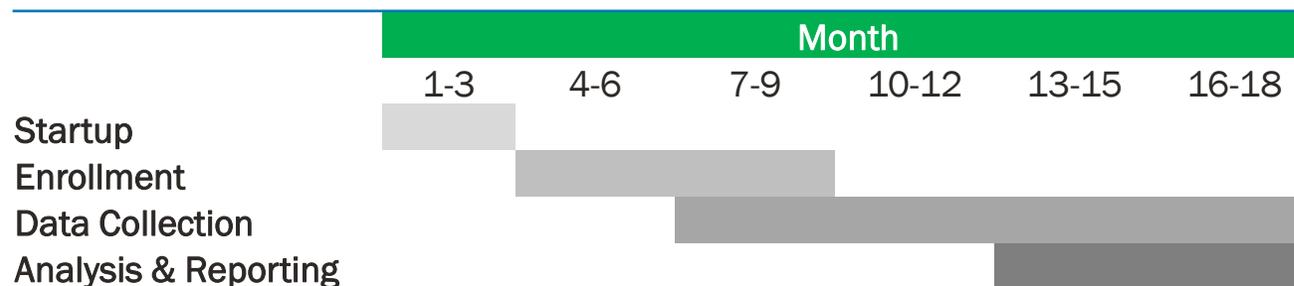
Pilot Scope

Pilot Costs

- Forecasted pilot costs of \$875K include customer incentives, includes marketing, platform build, and administration.
 - Includes \$300 incentive to cover charger, installation and data authorization.
- Target participation of 1000 customers is achievable with expected annual EV adoption in PPL EU territory

Schedule

- 18-month pilot that will last until the conclusion of Phase IV
- 3-month startup with 6-month enrollment period



Appendix B



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA PUBLIC UTILITY COMMISSION
400 NORTH STREET, HARRISBURG, PA 17120

IN REPLY PLEASE
REFER TO OUR FILE

June 18, 2024

Docket No.: M-2020-3020824
Utility Code: 110500

Michael J. Shafer, Esquire
PPL Electric Utilities
Two North Ninth St.
Allentown, PA 18101
mjshafer@pplweb.com

RE: Petition of PPL Electric Utilities Corporation for Approval of its Act 129
Phase IV Energy Efficiency and Conservation Plan

Dear Mr. Shaffer:

On June 12, 2024, PPL Electric Utilities (PPL) submitted a filing with the Commission that included five PowerPoint slides broadly outlining its intent to institute a Residential Electric Vehicle (EV) Charging Pilot Program. To assist the Commission in conducting a review of the PPL's Residential EV Charging Pilot Program, please respond with the information requested in the attached TUS Data Request.

Please forward the information to the Secretary of the Commission **within ten (10) business days** from the date of this letter. All documents requiring notary stamps must have original signatures. The Commission strongly encourages submission through efilings with the Secretary of the Commission by opening an efilings account through the Commission's website and accepting eservice at <https://efiling.puc.pa.gov>. The Commission is accepting all public documents through our efilings system at this time.

If your filing contains confidential material, you are required to either file by overnight delivery or submit to the Secretary's Share Point File system to ensure the timely filing of your submission. Filers should contact the Secretary's Bureau in advance to gain access to the Share Point File system. Make sure to reference the Docket Number listed above when filing your response. The overnight address for hard-copy or confidential responses is:

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

Your answers should be verified per 52 Pa Code § 1.36. Accordingly, you must provide the following statement with your responses:

I, [print name of appropriate company representative], hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Signature _____

Title _____

Date _____

Please contact the below staff person if any problems should arise that prevent a full response within ten business days or if any clarification of these data requests is needed. Please mark the materials “CONFIDENTIAL” in bold or highlighted manner if any of the requested information is deemed to be of a confidential nature.

In addition, to expedite completion of the review, please send a copy of your response to Mr. Joseph Sherrick, Supervisor of Policy and Planning of the Bureau of Technical Utility Services via e-mail at josherrick@pa.gov. Thank you in advance for your cooperation.

Sincerely,



Rosemary Chiavetta
Secretary

Enclosure: TUS Data Request

cc: Thomas McAteer, TJMAteer@pplweb.com
Megan Good, mgood@pplweb.com

TUS Data Request
Act 129 Phase IV EV Charging Pilot
Docket No. M-2020-3020824

Note: Please restate the data request prior to providing a response. In addition, provide the name and title of the person(s) providing the response and/or information for each data request.

1. In reference to the filing submitted to the Commission on June 12, 2024, containing a 5-slide PowerPoint (PPT) document referencing a proposal by PPL Electric Utilities (PPL) to engage in an electric vehicle (EV) charging pilot program, please provide responses to the following questions.
 - a. Why has PPL not filed a petition for minor plan change to its Act 129 Phase IV Implementation Plan? Although money is set aside in the Phase IV Implementation Plan for pilot programs, the actual creation of any specific pilot and its associated details does create a change to the Implementation Plan. As identified in Section C, Process for Approving Minor Changes to an EDC EE&C Plan, in the Commission's Order dated June 9, 2011, at Docket M-2008-2069887, the inclusion of the proposed pilot plant warrants filing of a Petition for Minor Plan Change.
 - b. Please explain the process and data used by PPL to determine that 1,000 customers would be an achievable target for this pilot.
 - c. Please explain how any potential energy savings (kWh) from this proposed pilot program are expected to result from EV charging. What baseline information would data collected from the participants of this pilot be compared against to arrive at energy savings (kWh)?
 - d. Please clarify that the terms and conditions for data authorization clearly convey to the consumer/applicant that all data will be treated confidentially and only provided or used in anonymized aggregate fashion.
 - e. Please provide the cost breakdown of the \$875,000 total cost, for customer incentives, marketing, platform build, and administration.
 - f. Please provide the estimated TRC for the proposed pilot and for the overall Phase IV implementation plan.
 - g. The post-purchase rebate is for specific Level 2 "networked" EV chargers. Please detail which EV charger models and vendors were selected for this pilot and how PPL made this determination.
 - h. How did PPL arrive at the price point for the prescribed chargers?
 - i. Because this is intended to be a residential pilot program, Commission staff do not believe that PPL intends to require that these eligible chargers are truly networked chargers but rather are simply Wi-fi enabled. Please confirm or clarify this aspect.

- j. Please explain the turnkey installation option.
 - i. Has PPL selected an installation vendor? If so, how was this vendor selected?
 - ii. Is there a difference in rebate amount if the customer chooses the turnkey installation option vs hiring their own installer?
- k. The PPT states that PPL's residential CSP "has the necessary software".
 - i. What software is being referenced?
 - ii. Specifically, how will this software be utilized and what data will be collected with this software?
 - iii. Is there any additional cost to utilize this software for this pilot and, if so, what is that cost?
- l. The schedule shown on Slide 5 of the PPT suggests a 6-month enrollment period with a 12-month data collection period. The schedule, however, does not appear to provide time for data collection from participants enrolling in the last half of the enrollment period (months 7 through 9).
 - i. Please address if data collection will continue for a full twelve months for all participants, even if it extends beyond the end of Phase IV.
 - ii. Will PPL be collecting data for a longer period to provide a more robust data set and more meaningful analysis?
- m. Will PPL be claiming savings from this pilot for Phase IV? If not, why not?

Appendix C



One Oxford Centre
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Pittsburgh, PA 15219
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412-227-9065 Main Fax
www.postschell.com

Devin Ryan

dryan@postschell.com
717-612-6052 Direct
717-731-1985 Direct Fax
File #: 193598

July 3, 2024

VIA ELECTRONIC FILING

Rosemary Chiavetta
Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

**Re: Petition of PPL Electric Utilities Corporation for Approval of its Act 129 Phase IV
Energy Efficiency and Conservation Plan
Docket No. M-2020-3020824**

Dear Secretary Chiavetta:

Enclosed for filing on behalf of PPL Electric Utilities Corporation (“PPL Electric” or the “Company”) are the Company’s Answers to the Bureau of Technical Utility Services’ Set I of Data Requests, which were served by Secretarial Letter dated June 18, 2024.

Copies of this filing are being provided as indicated below and on the Certificate of Service.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Devin Ryan". The signature is stylized and somewhat scribbled.

Devin Ryan

DR/dmc
Enclosures

cc: Certificate of Service
Joseph Sherrick (*via Email josherrick@pa.gov*)

CERTIFICATE OF SERVICE
(Docket No. M-2020-3020824)

I hereby certify that a true and correct copy of this filing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

VIA E-MAIL

Steven C. Gray, Esquire
Office of Small Business Advocate
555 Walnut Street
Forum Place, 1st Floor
Harrisburg, PA 17101
E-mail: sgray@pa.gov

Joseph L. Vullo, Esquire
Burke Vullo Reilly Roberts
1460 Wyoming Avenue
Forty Fort, PA 18704
E-mail: jlvullo@bvrrlaw.com
Commission on Economic Opportunity

Christy M. Appleby, Esquire
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Judith D. Cassel, Esquire
Micah R. Bucy, Esquire
Hawke McKeon & Sniscak LLP
100 North 10th Street
Harrisburg, PA 17101
E-mail: jcassel@hmslegal.com
E-mail: mrbcy@hmslegal.com
Sustainable Energy Fund

Elizabeth R. Marx, Esquire
John W. Sweet, Esquire
Ria M. Pereira, Esquire
Pennsylvania Utility Law Project
118 Locust Street
Harrisburg, PA 17101
E-mail: pulp@palegalaid.net
CAUSE-PA

Dated: July 3, 2024



Devin T. Ryan

WITNESS: Thomas J. McAteer

**PPL Electric Utilities Corporation
Response to the Data Requests of
The Bureau of Technical Utility Services
Dated June 18, 2024
Docket No. M-2020-3020824**

TUS A-1 In reference to the filing submitted to the Commission on June 12, 2024, containing a 5-slide PowerPoint (PPT) document referencing a proposal by PPL Electric Utilities (PPL) to engage in an electric vehicle (EV) charging pilot program, please provide responses to the following questions.

- a. Why has PPL not filed a petition for minor plan change to its Act 129 Phase IV Implementation Plan? Although money is set aside in the Phase IV Implementation Plan for pilot programs, the actual creation of any specific pilot and its associated details does create a change to the Implementation Plan. As identified in Section C, Process for Approving Minor Changes to an EDC EE&C Plan, in the Commission's Order dated June 9, 2011, at Docket M-2008-2069887, the inclusion of the proposed pilot plant warrants filing of a Petition for Minor Plan Change.
- b. Please explain the process and data used by PPL to determine that 1,000 customers would be an achievable target for this pilot.
- c. Please explain how any potential energy savings (kWh) from this proposed pilot program are expected to result from EV charging. What baseline information would data collected from the participants of this pilot be compared against to arrive at energy savings (kWh)?
- d. Please clarify that the terms and conditions for data authorization clearly convey to the consumer/applicant that all data will be treated confidentially and only provided or used in anonymized aggregate fashion.
- e. Please provide the cost breakdown of the \$875,000 total cost, for customer incentives, marketing, platform build, and administration.
- f. Please provide the estimated TRC for the proposed pilot and for the overall Phase IV implementation plan.
- g. The post-purchase rebate is for specific Level 2 "networked" EV chargers. Please detail which EV charger models and vendors

WITNESS: Thomas J. McAteer

were selected for this pilot and how PPL made this determination.

- h. How did PPL arrive at the price point for the prescribed chargers?
- i. Because this is intended to be a residential pilot program, Commission staff do not believe that PPL intends to require that these eligible chargers are truly networked chargers but rather are simply Wi-fi enabled. Please confirm or clarify this aspect.
- j. Please explain the turnkey installation option.
 - i. Has PPL selected an installation vendor? If so, how was this vendor selected?
 - ii. Is there a difference in rebate amount if the customer chooses the turnkey installation option vs hiring their own installer?
- k. The PPT states that PPL's residential CSP "has the necessary software".
 - i. What software is being referenced?
 - ii. Specifically, how will this software be utilized and what data will be collected with this software?
 - iii. Is there any additional cost to utilize this software for this pilot and, if so, what is that cost?
- l. The schedule shown on Slide 5 of the PPT suggests a 6-month enrollment period with a 12-month data collection period. The schedule, however, does not appear to provide time for data collection from participants enrolling in the last half of the enrollment period (months 7 through 9).
 - i. Please address if data collection will continue for a full twelve months for all participants, even if it extends beyond the end of Phase IV.
 - ii. Will PPL be collecting data for a longer period to provide a more robust data set and more meaningful analysis?
- m. Will PPL be claiming savings from this pilot for Phase IV? If not, why not?

PPL
Response

- a. PPL Electric disagrees that the EV Charger Pilot Program constitutes a "minor" EE&C Plan change. Nothing in the PUC's Minor Plan Change Order states that the addition of a pilot program constitutes a minor plan change that requires PUC approval. See Energy Efficiency and Conservation

WITNESS: Thomas J. McAteer

Program, Docket No. M-2008-2069887 (Order entered June 10, 2011) (“Minor Plan Change Order”). In fact, the word “pilot” is not used anywhere in the Minor Plan Change Order. Rather, Section C of the Minor Plan Change Order states that the following changes to an EE&C Plan constitute “minor” plan changes:

1. The elimination of a measure that is underperforming, no longer viable for reasons of cost-effectiveness, savings or market penetration or has met its approved budgeted funding, participation level or amount of savings;
2. The transfer of funds from one measure or program to another measure or program within the same customer class; and
3. Adding a measure or changing the conditions of a measure, such as its eligibility requirements, technical description, rebate structure or amount, projected savings, estimated incremental costs, projected number of participants, or other conditions so long as the change does not increase the overall costs to that customer class.

Minor Plan Change Order, p. 19.

Here, PPL Electric is not eliminating a measure, transferring funds from one measure or program to another measure or program, or adding a measure or changing the conditions of a measure. The EV Charger Pilot Program will be implemented within the existing Commission-approved budget of \$3 million for residential pilot programs and pursuant to the Commission-approved process for implementing pilot programs, as set forth in Section 9.1.4 of the Company’s Phase IV EE&C Plan.

In addition, nothing in PPL Electric’s Phase IV EE&C Plan is changing due to the EV Charger Pilot Program. Section 9.1.4 of the Phase IV EE&C Plan expressly outlines the process by which pilot programs will be implemented, stating, “As was done in Phase III, the Company will submit descriptions of any pilot programs or proposed technology additions to the Pa PUC and stakeholders prior to implementation.” PPL Electric complied with this process by filing its letter on June 12, 2024, describing the EV

WITNESS: Thomas J. McAteer

Charger Pilot Program and by providing notice and a pilot program description to stakeholders on June 11, 2024.

Furthermore, the Commission-approved Phase IV EE&C Plan notes how not all pilot programs will require PUC approval. On page 67 of the Phase IV EE&C Plan, where the Company's Deep Energy Retrofits and Net Zero Building pilot programs are addressed, the Plan states, in pertinent part:

The Company will submit, within a reasonable time, a description of the pilot program(s) to the Commission and stakeholders prior to implementation in accordance with Section 9.1.4 of the Phase IV EE&C Plan. If either or both of the pilots require a change to the Phase IV EE&C Plan, the Company will review the change with stakeholders and submit the change to the Commission in a petition to modify the Phase IV EE&C Plan.

Phase IV EE&C Plan, p. 67 (emphasis added). The Commission specifically approved this language as part of its Opinion and Order entered on March 25, 2021, which approved the Joint Petition for Approval of Partial Settlement regarding PPL Electric's Phase IV EE&C Plan filing. See Petition of PPL Elec. Utils. Corp. for Approval of its Act 129 Phase IV Energy Efficiency and Conservation Plan, Docket No. M-2020-3020824, at (Order entered Mar. 25, 2021).

For these reasons, PPL Electric's EV Charger Pilot Program does not require separate Commission approval as a "minor" EE&C Plan change.

- b. The 1,000-customer pilot participation represents approximately 5% of the estimated annual EV growth rate in the PPL EU territory. 5% is the expected adoption rate for the proposed incentive. In addition, the proposed participation provides the best opportunity to achieve a sample set with high confidence and low precision error.
- c. The ENERGY STAR ("ES") testing yields power consumption for the EVSE in various modes (no vehicle, idle, max output, partial on). Threshold, qualifying values for the Level 2 ES specification were developed through testing that also included models ultimately deemed non-compliant. As such, there is an existing comparison of power to draw upon. The

WITNESS: Thomas J. McAteer

pilot will provide the number of hours in each mode, which combined with the power comparison will be used to determine annual energy savings. The pilot will determine the load profile of charging, which will show the proportion of savings that are coincident with peak demand.

- d. All customer information and data will be held securely and treated confidentially and, if presented or reported upon, will be anonymized and aggregated to protect all participating customers. These points will be clearly conveyed to customers in documentation, including in the terms and conditions of their data authorization.
- e. Cost breakdown of the \$875,000 total cost, for customer incentives, marketing, platform build, and administration:

| Task / Item | Rate | Unit | Quantity | Total |
|--|----------|-------------------|----------|------------------|
| Customer Incentives | \$300 | Qualified Charger | 1,000 | \$300,000 |
| Configuration and Launch | \$50,000 | Launch | 1 | \$50,000 |
| Pilot Partner Onboarding and Support | \$5,325 | Month | 15 | \$79,875 |
| Marketing and Outreach | \$8,350 | Month | 12 | \$100,200 |
| Customer Support and Rebate Processing | \$3,320 | Month | 16 | \$53,120 |
| Data Aggregation Platform | \$3,350 | Month | 12 | \$40,200 |
| Management and Reporting | \$11,875 | Month | 16 | \$190,000 |
| ChooseEV Subscription | \$30,750 | Year | 2 | \$61,500 |
| Total | | | | \$874,895 |

- f. The initial TRC benefit-cost ratio estimate from the Company's third-party evaluator for the pilot is 0.04. This is expectedly low due to the additional costs associated with a pilot. A scaled program would have an estimated TRC of 0.25. The overall Phase IV EE&C Plan would remain cost-effective with a TRC benefit-cost ratio exceeding 1.0.
- g. The pilot will employ Chargepoint and Wallbox charging equipment due to high data transfer rates and compatibility. The particular models will be determined prior to pilot implementation to ensure the most accessible and compatible equipment is eligible for incentives. These chargers accommodate both charging standards in use for light duty vehicles – SAE J1772 and NACS (SAE J3400).

WITNESS: Thomas J. McAteer

- h. The customer incentive is based largely on the request for data authorization, as well as the incremental cost of the charging equipment and installation costs. The equipment's retail cost is expected to be \$600 - \$700 without installation. Installation costs for a level two charger, due to the required 240V circuit, can range between \$750 and \$1500.
- i. The term networked is based on the ENERGY STAR electric vehicle charging definition and refers to charging equipment that is connected or online, allowing for remote data access and/or control of the charging state of the vehicle. In this sense, a networked charger is a requirement of the pilot. Please see https://www.energystar.gov/products/ev_chargers.
- j. Participating customers will have access to a CSP hosted website where they can order qualifying charging equipment with installation. The total cost of both equipment and installation will be instantly discounted by the selected incentive level.
 - i. The Company has not selected installation vendors. PPL Electric will begin selection during the planning phase of the pilot. The CSP will employ a closed network of at least three qualified installation trade ally(s) that have required certifications and demonstrate their understanding of EV charging installation requirements based on experience and/or training. Customers will have the final choice of installer.
 - ii. There is no difference in rebate amount.
- k. The PPT states that PPL's residential CSP "has the necessary software".
 - i. The software is a proprietary data aggregation platform provided by the Transportation Electrification division of our Residential CSP.
 - ii. The software allows the CSP to establish or update integrations with the smart charger original equipment manufacturer ("OEM") platforms, so that it can enable charging interval data collection from customer installation and activation through the end of the pilot term. The CSP will provide charging energy load

WITNESS: Thomas J. McAteer

shapes by vehicle type and usage profile as well as on and off-peak usage behavior.

- iii. Yes, as indicated in the cost summary, there is a monthly cost of \$3,350 totaling approximately \$40,200 for the entirety of the pilot.
- I. The schedule shown on Slide 5 of the PPT suggests a 6-month enrollment period with a 12-month data collection period. The schedule, however, does not appear to provide time for data collection from participants enrolling in the last half of the enrollment period (months 7 through 9).
 - i. Data collection will continue for the full twelve months for all participants to create a complete data set that will support future analysis needs, even if this extends past the end of Phase IV. However, the Company plans to report on results using the data collected by the end of Phase IV. PPL Electric expects to have adequate data by that time to derive significant conclusions for the pilot.
 - ii. The Company intends to collect data for a minimum of 12 months. The extension of data collection would incur additional costs outside of the existing Phase; the level of data collected in the pilot period is adequate for a meaningful analysis.
- m. Yes, the Company intends to claim savings from this pilot.

VERIFICATION

I, THOMAS J. McATEER, being the Manager – Energy Efficiency at PPL Electric Utilities Corporation, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief and that I expect PPL Electric Utilities Corporation to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 07/02/2024



Thomas J. McAteer

Appendix D



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA PUBLIC UTILITY COMMISSION
400 NORTH STREET, HARRISBURG, PA 17120

IN REPLY PLEASE
REFER TO OUR FILE

October 16, 2024

Docket No.: M-2020-3020824
Utility Code: 110500

Michael J. Shafer, Esquire
PPL Electric Utilities
Two North Ninth St.
Allentown, PA 18101
mjshafer@pplweb.com

RE: Petition of PPL Electric Utilities Corporation for Approval of a Minor Plan Change to its Act 129 Phase IV Energy Efficiency and Conservation Plan

Dear Mr. Shaffer:

On September 19, 2024, PPL Electric Utilities (PPL) submitted a filing with the Commission for permission to modify its Phase IV Energy Efficiency and Conservation Plan (“EE&C Plan”) approved by the Commission. Through this Petition, PPL Electric proposes one minor change to its Phase IV EE&C Plan to add a Residential Electric Vehicle Charging Pilot Program to Its Residential Pilot Programs with no change to the existing budget for Residential Pilot Programs (Minor Change). To assist the Commission in conducting a review of the PPL’s Residential EV Charging Pilot Program, please respond with the information requested in the attached TUS Data Request.

Please forward the information to the Secretary of the Commission **within ten (10) business days** from the date of this letter. All documents requiring notary stamps must have original signatures. The Commission strongly encourages submission through efilings with the Secretary of the Commission by opening an efilings account through the Commission’s website and accepting eservice at <https://efiling.puc.pa.gov>. The Commission is currently accepting all public documents through our efilings system.

If your filing contains confidential material, you are required to either file by overnight delivery or submit it to the Secretary’s SharePoint File system to ensure the timely filing of your submission. Filers should contact the Secretary’s Bureau in advance to gain access to the SharePoint File system. Make sure to reference the Docket Number listed above when filing your response. The overnight address for hard-copy or confidential responses is:

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

Your answers should be verified per 52 Pa Code § 1.36. Accordingly, you must provide the following statement with your responses:

I, [print name of appropriate company representative], hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Signature _____
Title _____
Date _____

Please contact the below staff person if any problems should arise that prevent a full response within ten business days or if any clarification of these data requests is needed. Please mark the materials “CONFIDENTIAL” in bold or highlighted manner if any of the requested information is deemed to be confidential.

In addition, to expedite completion of the review, please send a copy of your response to Mr. Joseph Sherrick, Supervisor of Policy and Planning of the Bureau of Technical Utility Services via e-mail at josherrick@pa.gov. Thank you in advance for your cooperation.

Sincerely,



Rosemary Chiavetta
Secretary

Enclosure: TUS Data Request

cc: Thomas McAteer, TJMAteer@pplweb.com
Megan Good, mgood@pplweb.com

TUS Data Request
Act 129 Phase IV Energy Efficiency and Conservation Plan - Minor Plan Change
Docket No. M-2020-3020824

Note: Please restate the data request before providing a response. In addition, give the name and title of the person(s) providing the response and/or information for each data request.

1. In reference to the Petition of PPL Electric Utilities Corporation (PPL) filed with the Commission on September 19, 2024, for approval of a Minor Plan Change to add a residential electric vehicle (EV) charging pilot program, please respond to the following questions.
 - a. What energy efficiency opportunities do you envision from implementing this pilot?
 - b. Please explain how any potential energy savings (kWh) from this proposed pilot program are expected to result from EV charging. What baseline information would data collected from the participants of this pilot be compared against to arrive at energy savings (kWh)?
 - c. Please explain the process and data used by PPL to determine that 1,000 customers would be an achievable target for this pilot.
 - d. Please clarify that the terms and conditions for data authorization clearly convey to the consumer/applicant that all data will be treated confidentially and only provided or used in an anonymized aggregate fashion.
 - e. Please provide the total cost breakdown for customer incentives, marketing, platform build, and administration.
 - f. Please provide the estimated TRC for the proposed pilot.
 - g. The post-purchase rebate is for specific Level 2 “connected” Energy Star certified smart EV chargers. Please detail which EV charger models and vendors were selected for this pilot and how PPL determined them.
 - h. How did PPL arrive at the price point for the prescribed chargers?
 - i. Are these eligible chargers truly networked chargers or simply Wi-fi enabled? Please confirm or clarify this aspect.
 - j. Will PPL be claiming savings from this pilot for Phase IV? If not, why not?

Appendix E



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412-227-9065 Main Fax
www.postschell.com

Devin Ryan

dryan@postschell.com
717-612-6052 Direct
717-731-1985 Direct Fax
File #: 193598

October 22, 2024

VIA ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

**Re: Petition of PPL Electric Utilities Corporation for Approval of its Act 129 Phase IV
Energy Efficiency and Conservation Plan
Docket No. M-2020-3020824**

Dear Secretary Chiavetta:

Enclosed for filing is the answer to the data request propounded by the Bureau of Technical Utility Services on October 16, 2024, in the above-captioned proceeding, concerning the Petition of PPL Electric Utilities Corporation for Approval of a Minor Change to Its Act 129 Energy Efficiency and Conservation Plan.

Copies of the answer to the data request are being served as indicated below and on the enclosed Certificate of Service.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Devin Ryan', with a long horizontal flourish extending to the right.

Devin Ryan

DTR/dmc
Enclosures

cc: Joseph Sherrick (via Email josherrick@pa.gov)
Certificate of Service

CERTIFICATE OF SERVICE
(Docket No. M-2020-3020824)

I hereby certify that a true and correct copy of this filing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

VIA E-MAIL

Steven C. Gray, Esquire
Office of Small Business Advocate
555 Walnut Street
Forum Place, 1st Floor
Harrisburg, PA 17101
E-mail: sgray@pa.gov

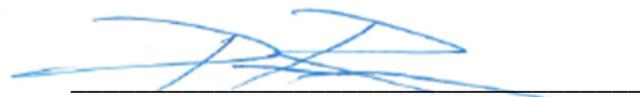
Joseph L. Vullo, Esquire
Burke Vullo Reilly Roberts
1460 Wyoming Avenue
Forty Fort, PA 18704
E-mail: jlvullo@bvrrlaw.com
Commission on Economic Opportunity

Christy M. Appleby, Esquire
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Harrisburg, PA 17101-1923
E-mail: cappleby@paoca.org

Judith D. Cassel, Esquire
Micah R. Bucy, Esquire
Hawke McKeon & Sniscak LLP
100 North 10th Street
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E-mail: mrbcy@hmslegal.com
Sustainable Energy Fund

Elizabeth R. Marx, Esquire
John W. Sweet, Esquire
Ria M. Pereira, Esquire
Pennsylvania Utility Law Project
118 Locust Street
Harrisburg, PA 17101
E-mail: pulp@palegalaid.net
CAUSE-PA

Dated: October 22, 2024



Devin T. Ryan

WITNESS: Thomas J. McAteer

**PPL Electric Utilities Corporation
Response to the Set II Data Requests of
The Bureau of Technical Utility Services
Dated October 16, 2024
Docket No. M-2020-3020824**

TUS A-1 In reference to the Petition of PPL Electric Utilities Corporation (PPL) filed with the Commission on September 19, 2024, for approval of a Minor Plan Change to add a residential electric vehicle (EV) charging pilot program, please respond to the following questions.

- a. What energy efficiency opportunities do you envision from implementing this pilot?
- b. Please explain how any potential energy savings (kWh) from this proposed pilot program are expected to result from EV charging. What baseline information would data collected from the participants of this pilot be compared against to arrive at energy savings (kWh)?
- c. Please explain the process and data used by PPL to determine that 1,000 customers would be an achievable target for this pilot.
- d. Please clarify that the terms and conditions for data authorization clearly convey to the consumer/applicant that all data will be treated confidentially and only provided or used in anonymized aggregate fashion.
- e. Please provide the cost breakdown for customer incentives, marketing, platform build, and administration.
- f. Please provide the estimated TRC for the proposed pilot.
- g. The post-purchase rebate is for specific Level 2 “connected” Energy Star certified smart EV chargers. Please detail which EV charger models and vendors were selected for this pilot and how PPL made this determination.
- h. How did PPL arrive at the price point for the prescribed chargers?
- i. Are these eligible chargers truly networked chargers or simply Wi-fi enabled? Please confirm or clarify this aspect.
- j. Will PPL be claiming savings from this pilot for Phase IV? If not, why not?

WITNESS: Thomas J. McAteer

PPL
Response

- a. PPL EU would leverage the well-established energy efficiency opportunity of incentivizing ENERGY STAR (“ES”) Level 2 chargers. The U.S. EPA notes that ENERGY STAR Level 2 EV chargers use 40% less energy than a standard EV charger in the most common operational mode, standby.
- b. The ENERGY STAR (“ES”) testing yields power consumption for the EVSE in various modes (no vehicle, idle, max output, partial on). Threshold, qualifying values for the Level 2 ES specification were developed through testing that also included models ultimately deemed non-compliant. As such, there is an existing comparison of power to draw upon. The pilot will provide the number of hours in each mode, which combined with the power comparison will be used to determine annual energy savings. The pilot will determine the load profile of charging, which will show the proportion of savings that are coincident with peak demand.
- c. The 1,000-customer pilot participation represents approximately 5% of the estimated annual EV growth rate in the PPL EU territory. 5% is the expected adoption rate for the proposed incentive. In addition, the proposed participation provides the best opportunity to achieve a sample set with high confidence and low precision error.
- d. All customer information and data will be held securely and treated confidentially and, if presented or reported upon, will be anonymized and aggregated to protect all participating customers. These points will be clearly conveyed to customers in documentation, including in the terms and conditions of their data authorization.
- e. Cost breakdown of the \$875,000 total cost, for customer incentives, marketing, platform build, and administration:

WITNESS: Thomas J. McAteer

| Task / Item | Rate | Unit | Quantity | Total |
|--|----------|-------------------|----------|------------------|
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| Configuration and Launch | \$50,000 | Launch | 1 | \$50,000 |
| Pilot Partner Onboarding and Support | \$5,325 | Month | 15 | \$79,875 |
| Marketing and Outreach | \$8,350 | Month | 12 | \$100,200 |
| Customer Support and Rebate Processing | \$3,320 | Month | 16 | \$53,120 |
| Data Aggregation Platform | \$3,350 | Month | 12 | \$40,200 |
| Management and Reporting | \$11,875 | Month | 16 | \$190,000 |
| ChooseEV Subscription | \$30,750 | Year | 2 | \$61,500 |
| Total | | | | \$874,895 |

- f. The initial TRC benefit-cost ratio estimate from the Company’s third-party evaluator for the pilot is 0.04. This is expectedly low due to the additional costs associated with a pilot. A scaled program would have an estimated TRC of 0.25. The overall Phase IV EE&C Plan would remain cost-effective with a TRC benefit-cost ratio exceeding 1.0.
- g. The pilot has finalized the manufacturer types and has selected Chargepoint and Emporia charging equipment due to high data transfer rates and compatibility. The particular models will be determined prior to pilot implementation to ensure the most accessible and compatible equipment is eligible for incentives. These chargers accommodate both charging standards in use for light duty vehicles – SAE J1772 and NACS (SAE J3400).
- h. The customer incentive is based largely on the request for data authorization, as well as the incremental cost of the charging equipment and installation costs. The equipment’s retail cost is expected to be \$600 - \$700 without installation. Installation costs for a level two charger, due to the required 240V circuit, can range between \$750 and \$1500.
- i. A common definition of networked chargers are units that are connected remotely to a larger network and have remote access to online management tools through an online portal. The eligible chargers will be Wi-Fi enabled and will need to be connected to the manufacturer’s online portal at the time of installation. This connection will allow for authorized data transfer back to PPL EU. As such, PPL EU views pilot chargers as networked.

WITNESS: Thomas J. McAteer

- j. Yes, the Company intends to claim savings from this pilot.

VERIFICATION

I, MELINDA STUMPF, being the Director - Customer Programs at PPL Electric Utilities Corporation, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief and that I expect PPL Electric Utilities Corporation to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 10/22/2024


Melinda Stumpf (Oct 22, 2024 11:20 EDT)
Melinda Stumpf

Appendix F



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301 Grant Street, Suite 3010
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Devin Ryan

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717-612-6052 Direct
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File #: 193598

October 31, 2024

VIA ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

**Re: Petition of PPL Electric Utilities Corporation for Approval of its Act 129 Phase IV
Energy Efficiency and Conservation Plan
Docket No. M-2020-3020824**

Dear Secretary Chiavetta:

Enclosed for filing is the supplemental answer to the data request propounded by the Bureau of Technical Utility Services on October 16, 2024, in the above-captioned proceeding, concerning the Petition of PPL Electric Utilities Corporation for Approval of a Minor Change to Its Act 129 Energy Efficiency and Conservation Plan. The supplemental answer provides additional information for the responses to subparts (a) and (b) of the data request.

Copies of the answer to the data request are being served as indicated below and on the enclosed Certificate of Service.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Devin Ryan', with a long horizontal flourish extending to the left.

Devin Ryan

DTR/dmc
Enclosures

CERTIFICATE OF SERVICE
(Docket No. M-2020-3020824)

I hereby certify that a true and correct copy of this filing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

VIA E-MAIL

Steven C. Gray, Esquire
Office of Small Business Advocate
555 Walnut Street
Forum Place, 1st Floor
Harrisburg, PA 17101
E-mail: sgray@pa.gov

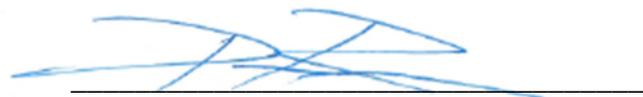
Joseph L. Vullo, Esquire
Burke Vullo Reilly Roberts
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Commission on Economic Opportunity

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Sustainable Energy Fund

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118 Locust Street
Harrisburg, PA 17101
E-mail: pulp@palegalaid.net
CAUSE-PA

Dated: October 31, 2024



Devin T. Ryan

Rosemary Chiavetta, Secretary
October 31, 2024
Page 2

cc: Joseph Sherrick (*via Email josherrick@pa.gov*)
Darren Gill (*via Email dgill@pa.gov*)
Certificate of Service

WITNESS: Thomas J. McAteer

PPL Electric Utilities Corporation
Response to the Set II Data Requests of
The Bureau of Technical Utility Services
Dated October 16, 2024
Docket No. M-2020-3020824

TUS A-1 In reference to the Petition of PPL Electric Utilities Corporation (PPL) filed with the Commission on September 19, 2024, for approval of a Minor Plan Change to add a residential electric vehicle (EV) charging pilot program, please respond to the following questions.

- a. What energy efficiency opportunities do you envision from implementing this pilot?
- b. Please explain how any potential energy savings (kWh) from this proposed pilot program are expected to result from EV charging. What baseline information would data collected from the participants of this pilot be compared against to arrive at energy savings (kWh)?
- c. Please explain the process and data used by PPL to determine that 1,000 customers would be an achievable target for this pilot.
- d. Please clarify that the terms and conditions for data authorization clearly convey to the consumer/applicant that all data will be treated confidentially and only provided or used in anonymized aggregate fashion.
- e. Please provide the cost breakdown for customer incentives, marketing, platform build, and administration.
- f. Please provide the estimated TRC for the proposed pilot.
- g. The post-purchase rebate is for specific Level 2 “connected” Energy Star certified smart EV chargers. Please detail which EV charger models and vendors were selected for this pilot and how PPL made this determination.
- h. How did PPL arrive at the price point for the prescribed chargers?
- i. Are these eligible chargers truly networked chargers or simply Wi-fi enabled? Please confirm or clarify this aspect.
- j. Will PPL be claiming savings from this pilot for Phase IV? If not, why not?

PPL
Response

- a. PPL EU would leverage the well-established energy efficiency opportunity of incentivizing ENERGY STAR (“ES”) Level 2 chargers. The U.S. EPA notes that ENERGY STAR Level 2 EV chargers use

WITNESS: Thomas J. McAteer

40% less energy than a standard EV charger in the most common operational mode, standby.

- b. The ENERGY STAR (“ES”) testing yields power consumption for the EVSE in various modes (no vehicle, idle, max output, partial on). Threshold, qualifying values for the Level 2 ES specification were developed through testing that also included models ultimately deemed non-compliant. As such, there is an existing comparison of power to draw upon. The pilot will provide the number of hours in each mode, which combined with the power comparison will be used to determine annual energy savings. The pilot will determine the load profile of charging, which will show the proportion of savings that are coincident with peak demand.
- c. The 1,000-customer pilot participation represents approximately 5% of the estimated annual EV growth rate in the PPL EU territory. 5% is the expected adoption rate for the proposed incentive. In addition, the proposed participation provides the best opportunity to achieve a sample set with high confidence and low precision error.
- d. All customer information and data will be held securely and treated confidentially and, if presented or reported upon, will be anonymized and aggregated to protect all participating customers. These points will be clearly conveyed to customers in documentation, including in the terms and conditions of their data authorization.
- e. Cost breakdown of the \$875,000 total cost, for customer incentives, marketing, platform build, and administration:

| Task / Item | Rate | Unit | Quantity | Total |
|--|----------|-------------------|----------|------------------|
| Customer Incentives | \$300 | Qualified Charger | 1,000 | \$300,000 |
| Configuration and Launch | \$50,000 | Launch | 1 | \$50,000 |
| Pilot Partner Onboarding and Support | \$5,325 | Month | 15 | \$79,875 |
| Marketing and Outreach | \$8,350 | Month | 12 | \$100,200 |
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| ChooseEV Subscription | \$30,750 | Year | 2 | \$61,500 |
| Total | | | | \$874,895 |

- f. The initial TRC benefit-cost ratio estimate from the Company’s third-party evaluator for the pilot is 0.04. This is expectedly low due to the additional costs associated with a pilot. A scaled program would have an estimated TRC of 0.25. The overall Phase IV EE&C Plan

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would remain cost-effective with a TRC benefit-cost ratio exceeding 1.0.

- g. The pilot has finalized the manufacturer types and has selected Chargepoint and Emporia charging equipment due to high data transfer rates and compatibility. The particular models will be determined prior to pilot implementation to ensure the most accessible and compatible equipment is eligible for incentives. These chargers accommodate both charging standards in use for light duty vehicles – SAE J1772 and NACS (SAE J3400).
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- j. Yes, the Company intends to claim savings from this pilot.

SUPPLEMENTAL RESPONSE (10-31-2024)

- a. Electric vehicle chargers are not binary like a light bulb that only consumes energy when switched on; when electric vehicle charging equipment is not charging a vehicle, they still consume energy. Energy savings from incentivizing ENERGY STAR level two chargers are realized by reducing consumption of energy while charging equipment is in standby mode (not actively charging). A comparison would be unplugging a cell phone charger while not charging to reduce 'phantom load'. This is possible because ENERGY STAR certified level 2 equipment consumes 40% less energy than standard EV chargers in standby mode. Researchers at the Idaho National Lab supported these results through separate testing and reporting on level 2 charger

WITNESS: Thomas J. McAteer

efficiency as part of the DOE’s EV Project - one of the largest on EV charging infrastructure.

The calculation methodology can be found in the PPL Electric Vehicle Chargers Draft IMP which mirrors similar approaches in other EDC territories and/or TRMs, including Texas, Arizona Public Service, Arkansas, CPS Energy, Illinois, Iowa, Michigan, New Jersey, New Mexico and RTF. Full algorithms can be found below.

Energy Savings

$$\Delta kWh = \frac{(((SBP_Hr+SBU_Hr) \times SBb) - ((SBP_Hr \times SBeP) + (SBU_Hr \times SBeUP)))}{1000}$$

Coincident Peak Demand Savings

$$\Delta kW_{peak} = \frac{((SBb - SBeP) \times \left(\frac{SBP_Hr}{(SBP_Hr + SBU_Hr)}\right) + (SBb - SBeUP) \times \left(\frac{SBU_Hr}{(SBP_Hr + SBU_Hr)}\right))}{1000} * CF$$

- b. PPL EU expects to claim approximately 60,500 kWh and 7.13 kW through the EV Charging Pilot. This is based on 60.50 kWh and 0.00713 kW per networked charger installed. These values are defaults that rely on ENERGY STAR efficient and baseline average standby mode power consumption, as well as annual plugged and unplugged standby hours utilized in testing scenarios. PPL EU will use actual EDC gathering values to update reported savings, where possible. As such, the savings may be less or greater depending on availability of data. The deemed values above are based on the following standby values and hours:

| Term | Description | Values |
|---------------|--|--------|
| <i>C_Hr</i> | Annual Active Charging Hours | 278 |
| <i>P_Hr</i> | Annual Plugged In Hours | 3,511 |
| <i>SBP_Hr</i> | Annual Plugged Standby Hours | 3,233 |
| <i>SBU_Hr</i> | Annual Unplugged Standby Hours | 5,249 |
| <i>SBb</i> | Baseline Average Standby Power (W) | 9.9 |
| <i>SBeP</i> | Efficient Average Standby Power (W) plugged in | 3.2 |
| <i>SBeUP</i> | Efficient Average Standby Power (W) unplugged | 2.5 |

VERIFICATION

I, THOMAS J. McATEER, being the Manager – Energy Efficiency at PPL Electric Utilities Corporation, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief and that I expect PPL Electric Utilities Corporation to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 10/31/2024



Thomas J. McAteer

VERIFICATION

I, THOMAS J. McATEER, being the Manager – Energy Efficiency at PPL Electric Utilities Corporation, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief and that I expect PPL Electric Utilities Corporation to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 12/09/2024



Thomas J. McAteer