

**PENNSYLVANIA
PUBLIC UTILITY COMMISSION
Harrisburg, PA 17105-3265**

Public Meeting held October 19, 2023

Commissioners Present:

Stephen M. DeFrank, Chairman
Kimberly Barrow, Vice Chair
Ralph V. Yanora
Kathryn L. Zerfuss
John F. Coleman, Jr.

Electric Utility Rate Design for Electric
Vehicle Charging

M-2023-3040755

PROPOSED POLICY STATEMENT ORDER

BY THE COMMISSION:

On May 18, 2023, the Pennsylvania Public Utility Commission (Commission) entered an order, at Docket No. P-2022-3030743, approving ChargeVC-PA's petition to initiate a proceeding that is intended to result in the issuance of a policy statement on electric utility rate design for electric vehicle (EV) charging in Pennsylvania. With this Order, the Commission continues its review of this subject by entering, for comment, a Proposed Policy Statement in Annex A to identify factors to be considered in determining just and reasonable distribution and default service rates that promote the implementation of proper EV rate design.

BACKGROUND

On February 4, 2022, ChargeVC-PA filed a Petition under 66 Pa.C.S. §§ 510, 1301, 1330, 1501 and 2807(f), and 52 Pa. Code § 5.41, requesting that the Commission initiate a proceeding that would result in the issuance of a Policy Statement on electric utility rate design for EV charging in Pennsylvania.

ChargEVC-PA is a coalition formed to serve as a resource for research and information on, and as an advocate for, advanced EV adoption and market development in Pennsylvania. ChargEVC-PA consists of the following members: Electrification Coalition, Greenlots, Keystone Energy Alliance, Natural Resources Defense Council (NRDC), Plug In America, Sierra Club and Adams Electric Cooperative. ChargEVC-PA Petition at 1.

The Commission received comments regarding ChargEVC-PA's Petition from AEE;¹ Alliance for Transportation Electrification (ATE); CAUSE-PA;² ChargePoint, Electrify America, EVgo, and Tesla (collectively ChargePoint, et al.); Citizens' Electric Company of Lewisburg, PA, and Wellsboro Electric Company (collectively Citizens' Electric); Pennsylvania Department of Environmental Protection (DEP) and Pennsylvania Department of Transportation (PennDOT); Duquesne Light Company (Duquesne Light); Electrification Coalition; Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company (collectively FirstEnergy); NRDC and Sierra Club; NRG Energy, Inc., Interstate Gas Supply, Inc. d/b/a IGS Energy and Vistra Corp (collectively EGS Coalition); the Office of Consumer Advocate (OCA); PECO Energy Company (PECO); UGI Utilities, Inc. – Electric Division (UGI Electric); and PPL Electric Utilities Corporation (PPL Electric). The Commission also received reply comments from ChargEVC-PA, ChargePoint, et al., and CAUSE-PA.

¹ AEE's Letter in Support of ChargEVC-PA, filed on February 25, 2022 was recognized as AEE's comments in this matter.

² CAUSE-PA's Petition to Intervene, filed on February 24, 2022, contained comments to ChargEVC-PA's petition. As CAUSE-PA did not file comments subsequent to the Commission's February 25, 2022 Secretarial Letter, the Commission recognized CAUSE-PA's Petition to Intervene as its comments in that matter.

Based on the comments received, the Commission entered an Order on December 1, 2022, directing the Bureau of Technical Utility Services (TUS) to convene an EV-charging rate design working group (working group) of interested parties to discuss EV rate design and to file the recommendations of the working group no later than March 31, 2023. The Commission further ordered that TUS, in conjunction with the Law Bureau, prepare an order considering ChargeEVC-PA's request for a Policy Statement and the working group's recommendations relative to EV rate design by June 1, 2023.

The Commission received informal comments from 23 informal working group participants: ATE; Advanced Energy United; CAUSE-PA; ChargeEVC-PA; Electrify America; FirstEnergy; Duquesne Light; OCA; PECO; joint comments by Pennsylvania Petroleum Association, GetGo Cafe + Market / Giant Eagle, Inc., Glassmere Fuel Service, Onvo, Sheetz, Inc., Wawa, Inc.; Pennsylvania Energy Consumer Alliance, Met-Ed Industrial Users Group, Penelec Industrial Customer Alliance, Philadelphia Area Industrial Energy Users Group, and PP&L Industrial Customer Alliance, West Penn Power Industrial Intervenors (collectively, Large Customer Groups); PPL Electric; UGI Electric; Joint comments by ChargePoint, et al.; WeaveGrid; the Natural Resources Defense Council, PennDOT, and CALSTART.

The informal working group filed its recommendations on March 30, 2023.

The working group recommended:

1. That the Commission proceed with drafting a proposed Policy Statement concerning EV-charging rate design.
2. That the proposed Policy Statement consider the topics contained in the informally filed comments.

3. That Commission staff utilize the informal working group, as necessary, when drafting the proposed Policy Statement for Commission review.

On May 18, 2023, the Commission entered an Order, at Docket No. P-2022-3030743, agreeing with the working group's recommendation and approving ChargEVC-PA's petition to initiate a proceeding that will result in the issuance of a Policy Statement on electric utility rate design for EV charging in Pennsylvania. In the Order, we noted that as the economic regulator of 11 EDCs in the Commonwealth serving over five million accounts, this Commission is charged by the Infrastructure Investment and Jobs Act³ (IIJA) with considering EDC rate design and default service rate design for EVs. *See* 16 U.S.C. § 2621(d)(21) (regarding elective vehicle charging programs). To that end, and to ensure that this Commission maintains a nimble posture ahead of this electrification transition, it is imperative that the Commission develop a Policy Statement that advances effective management of energy and infrastructure costs.

DISCUSSION

With this Order, we are proposing the following Policy Statement as set forth in Annex A to this Order. The Commission recognizes that the utility landscape is evolving rapidly, none more rapidly than the electric industry. Increasing penetration of distributed energy resources and EVs presents both a challenge and an opportunity for regulators and utilities. From a challenging perspective, absent appropriate policies, the increased adoption of these technologies will likely work to decrease utilities' distribution system network capacity utilization – or the ratio of average demand to peak demand. This places significant headwinds on distribution rates. Further, this adoption could potentially strain electric generation prices and wholesale generation resource adequacy if EV charging load is added to hours of already existing peak demand. However, EDCs have an opportunity to utilize the portfolio of new technologies such as,

³ P.L. 117-58, November 15, 2021, 135 Stat. 429.

but not limited to, advanced metering, advanced grid monitoring, energy efficiency, demand response, and smart thermostats to better accommodate the evolving demand profiles created by this new energy landscape.

It should be noted that the working group, formed at Docket No. P-2022-3030743, offered 25 recommendations regarding content to be included in an EV rate design policy statement. Careful consideration of these recommendations formed the basis for much of this proposed policy statement.

A. EV-charging Rate Tariffs

Many working group commenters supported the Commission either encouraging or requiring EDCs to file EV-charging rates in their tariffs. Some noted that since each EDC service territory has its own unique demographics and load characteristics, there needs to be flexibility when designing rates to accommodate those unique demographics and characteristics.

Specifically, DLC, First Energy, PPL, PECO, and CALSTART suggested that to allow for flexibility, an EV-charging rate design policy statement should refrain from setting artificial time-based deadlines or minimum filing requirements that are more prescriptive than those required for any other utility rate design proposal. They also proposed that an EV rate design policy statement provide a framework and general guidance to aid EDCs in developing EV-charging rate designs and tariffs. Informal Working Group Recommendation #2.

PECO further stated that if Pennsylvania utilities are permitted to own and/or operate charging stations at some point in the future, EV-charging rate designs would necessarily have to include charging station ownership and maintenance as part of underlying costs. At present, based on existing state law, the Commission may not have the legal authority to approve any rate design tied to utility ownership of charging

stations. The Commission should provide direction on this and other EV rate design options currently facing legal or regulatory barriers in Pennsylvania that prevent the Commission from authorizing them. Informal Working Group Recommendation #24.

B. EV-charging Rate Design

The utility landscape is evolving rapidly, none more rapidly than the electric industry. Increased penetration of distributed energy resources and EVs presents both a challenge and an opportunity for regulators and utilities. From a challenge perspective, the increased adoption of these technologies will likely work to decrease utilities' capacity utilization – or the ratio of peak demand to average demand. This places significant headwinds on distribution rates and default service rates. However, the electricity industry has an opportunity to utilize the portfolio of new technologies such as advanced metering, advanced grid monitoring, energy efficiency, demand response, and smart thermostats to better accommodate the evolving demand profiles created by this new energy landscape.

OCA, ChargeEV-PA, CAUSE-PA, United, WeaveGrid, and PennDOT recommended that if time-of-use (TOU) rates are implemented in EV rate design, there needs to be reasonable on-peak, off-peak, and super off-peak periods. There should also be differentiated pricing between on-peak, off-peak, and super off-peak rates. They asserted that without reasonable time periods and price signals that encourage consumers to charge during off-peak and super off-peak periods, ratepayers are not likely to adjust their usage effectively and any benefit of TOU rates would be significantly limited. These time periods and rates would likely vary depending on the specific EDC. It should also be considered that even EV owners who sign up for a TOU rate might, at times, have no choice but to charge during peak periods. Some consideration should also be given to a “free pass” where brief periods of charging (20-30 minutes), even on-peak, could be treated as off-peak, or at least not be overly punitive.

Further comments suggested that any EV rate design policy statement should be specific to EV adopters and should clearly state that any utilization of residential TOU rates must be offered on a voluntary, opt-in basis for EV charging to protect vulnerable residential consumers who lack sufficient discretionary usage to shift usage to off-peak times. Informal Working Group Recommendation #10.

PECO and DLC, are currently running pilot programs for EV charging, that are offered on a voluntary, opt-in basis. Both programs feature TOU rates, and offer three time periods: peak, off-peak, and super off-peak. The TOU rates vary, with higher rates for peak, lower rates for off-peak, and the lowest rates for super off-peak time periods. The rates apply year-round to the entire premises load.

OCA, CAUSE-PA, WeaveGrid, and PennDOT recommended that EDCs, stakeholders, and the Commission should consider if whole-house or separate meter TOU rates are appropriate. They commented that the EDC pilot programs should explore whole-house rates and EV-specific charging rates, with and without separate metering.

In addition, the Working Group suggested that the Commission explore the sub-metering options identified in several other EV rate programs. If a sub-metering option is created at some point, they propose that any costs involved in obtaining and connecting the separate metering equipment be at the sole expense of the EV owner. They note that any utilization of sub-metering for residential home EV charging must be narrowly tailored to EV applications and closely monitored to prevent consumer abuses. Further, they suggest that any EV rate design policy statement include, at minimum, clear guidance regarding applying Chapter 14 of the Public Utility Code (relating to responsible utility customer protections) and the Commission's regulations at Chapter 56 (relating to billing standards for residential utility service) to sub-metered accounts, and a statement indicating that sub-metering proposals for EV charging must be limited to that purpose. Informal Working Group Recommendation #11.

ChargEVC, Pennsylvania Petroleum Association, Electrify America, ChargePoint, EVgo, Tesla, Advanced Energy United, and ATE, recognize that traditional demand charges presently pose significant barriers to the deployment of direct current fast charging (DCFC) stations in Pennsylvania. They suggest that the Commission address the need for demand charge alternatives in a policy statement to facilitate the development of DCFC charging stations within the state. Therefore, they recommend that a policy statement on EV rate design recommend that the utilities file proposed tariffs that provide alternatives to demand charges for DCFC stations, with one stakeholder, ATE, asserting that a demand charge alternative should be provided on a temporary basis. Informal Working Group Recommendation #19.

C. EV-charging Rate Equity

OCA, ChargEVC-PA, DLC, FirstEnergy, UGI, PECO, Large Customer Groups, United, WeaveGrid, and CAUSE-PA, commented that as each EDC service territory has its own unique demographics and load characteristics, a one-size-fits-all approach to EV rate design is unreasonable and inappropriate. They note that EV rate design should be utility-specific and designed specifically to address each utility's load and cost characteristics in every base rate case proceeding. Therefore, they assert that individual EDCs should have the freedom to design and implement rates based on the various factors unique to their respective operating areas. Further, they propose that EDCs wishing to implement EV-specific rates should propose specific tariff language to provide rate design options for EV charging for its residential, commercial, and industrial customers, including the host sites (utility customers) who either operate or lease public charging stations.

These stakeholders also believe that EV rates should be designed in a manner to avoid unreasonable cross-subsidization between customers. Some commenters expressed that ratepayers who do not own EVs should not be required to subsidize EV-charging rates. For example, a low-income ratepayer who does not own an EV should not have to

pay the costs associated with a more affluent ratepayer's EV. They likewise assert that EV rates should follow established ratemaking principles to avoid cross-subsidization between rate classes (i.e., residential, commercial, industrial). Therefore, they recommend that EV rates be EDC specific, allow for regional flexibility and avoid cross-subsidization. Informal Working Group Recommendation #1.

FirstEnergy, UGI, and Large Customer Groups commented that education is a critical component of EV-charging rate design and, more importantly, greater EV adoption. They accordingly support a public education program that targets the public, particularly those currently not participating in EV adoption, by presenting educational materials on various topics, e.g., rate designs related to EV charging and EV-charging ownership costs. As such, they propose that EDCs have the flexibility to develop education programs and be permitted cost recovery for these programs.

These stakeholders noted that the most reasonable source for funding EV education and outreach would be entities either seeking to expand EV use in Pennsylvania or entities that would benefit from increased EV use in Pennsylvania, such as EV manufacturers and retailers, and EDCs. If, however, the Commission finds that customers themselves should bear the costs of their education and outreach, then, given that each customer rate class is unique with its own usage characteristics, the costs should be proportionately distributed across each rate class. As a result, some customer classes may require additional education on EV-charging rates (e.g., understanding off-peak and on-peak rates) while other customer classes may be more familiar with those concepts. To ensure that no cross-customer class subsidization occurs for allocating and collecting the costs for the specific education and outreach required for each customer class, individual rate classes (e.g., residential, commercial, and industrial) should have separate budgets (with any education and outreach efforts tailored to the needs of each such class) to be collected only from the customers within that class. Informal Working Group Recommendation #12.

OCA, ChargEVC-PA, United, and CAUSE-PA recommended that ratepayers who own EVs should receive the proper educational material related to their EV rates. They commented that ratepayers should be fully informed regarding any EV-charging rates and suggest that utilities should be responsible for distributing information to ratepayers about EV-charging rates. They encourage EDCs, stakeholders, and the Commission to evaluate any available resources to determine what has been most effective in other states, in terms of getting information to ratepayers, and in terms of making it as understandable as possible. Customer education and outreach strategies should also highlight different use cases, clarify eligibility requirements, allow for individualized rate comparison, and promote enrollment to take advantage of EV-specific rates. Informal Working Group Recommendation #13.

ChargEVC-PA and CAUSE-PA recommended that a policy statement include a description of consumer protection and equity considerations for low-to-moderate-income customers. They commented that any EV rate design policy statement include an explicit declaration that EV-charging rate proposals must be equitable and, as such, must not include intra-class or inter-class rate subsidies that could increase electricity costs for low-income Pennsylvanians. Informal Working Group Recommendation #17.

DISPOSITION

A. § 69.3551. Purpose and Scope

We concur with the comments that the Commission should adopt a policy statement that addresses EV-charging rate structures. The Commission proposes that the purpose and scope of this policy statement to encourage EDCs to develop EV-charging distribution rates with cost-of-service principles that incentivize increased network capacity utilization of the distribution system. Further, the proposed Policy Statement encourages default service providers (DSP), as defined in 66 Pa.C.S. § 2803 (relating to definitions), presently a role occupied by EDCs, to develop EV-charging generation rates.

The proposed scope also addresses fairness and equity principles that EDCs should consider in developing their distribution and default service generation EV-charging rates.

B. § 69.3552. Electric Vehicle Charging Rate Tariffs

We concur with the comments of the informal working group that encourage all EDCs to develop tariffs containing distribution and default service generation rates with the specific purpose of addressing EV-charging customers. We propose that these distribution and default service generation EV-charging tariffed rates should reflect the actual costs of providing charging infrastructure and services, including but not limited to the cost of electricity, maintenance, and any administrative expenses in a manner that avoids unreasonable cross-subsidization between customers. Accordingly, we propose a section that reflects these principles that EDCs should follow.

C. § 69.3553. Electric Vehicle Charging Rate Design

We concur with the comments of the informal working group that emphasize promoting the efficient use of EV-charging infrastructure to manage electric grid demand. We propose a section in the policy statement that encourages utilities to consider variable rates for EV-charging customers based on the time of day and the level of demand on the electric grid. This proposal advises that EDCs should charge higher rates for EV charging during peak demand hours and lower rates during off-peak hours. As such, we propose that EDCs develop EV-charging distribution rates with cost-of-service principles that incentivize increased network capacity utilization of the distribution system. Further, EDCs, as DSPs, should develop EV-charging default service generation rates that, at a minimum, properly reflect the cost of generation services during times of system stress. This may include, but is not limited to, use of on-peak and off-peak periods which appropriately incentivize the movement of charging consumption to off-peak periods or periods of less system stress. The Commission acknowledges that there is no single turnkey design for EV-charging distribution or

default service generation rates that achieve these principles. EDCs are situated differently, with varying demographics, grid characteristics, and demand profiles. Accordingly, EDCs may consider tools such as time-of-use, real-time pricing, demand charges, rebates, automatic control devices, and others to properly effectuate the public interest in line with the Commission’s proposed policy statement.

D. § 69.3554. Electric Vehicle Charging Rate Equity

We concur with the comments from the informal working group concerning EV rates promoting fairness and equity. As such, we propose a section in the policy statement that recommends that EDCs develop distribution and default service generation EV-charging rates that avoid unreasonable cross-subsidization between customers. Accordingly, the proposed Policy Statement addresses fairness and equity principles that EDCs should consider in developing EV-charging rates for distribution and default service generation rates. Such principles include, but are not limited to, impacts on low-income customers or disadvantaged communities. Finally, the Commission recognizes the importance of educating EDC and default service customers on the efficient and effective use of EV-charging infrastructure and available rates. As such, the Policy Statement proposes to encourage EDCs to prioritize customer education of efficient and effective use of EV charging and available distribution and default service generation rates.

CONCLUSION

The Commission is proposing this Policy Statement in accordance with its authority under Sections 501, 504, 505, 506, and 2806.1 of the Public Utility Code, 66 Pa.C.S. §§ 501, 504, 505, 506, 1353, and 2806.1. Based on the foregoing discussion, we will propose this Policy Statement regarding EV Rate Design as set forth in Annex A.

Again, these guidelines are not meant to be the only issues the Commission will consider in any applicable proceeding, or that they are to be considered above all other

principles, but to identify these policy issues as important to the Commission. These guidelines are intended to encourage consideration of these issues to facilitate development of the most appropriate rates for the changing utility environment.

With this Order, the Commission is proposing guidance for EDCs and interested stakeholders on what is to be considered regarding electric utility rate design for EV charging. The Commission welcomes comments on all aspects of this proposed Policy Statement; **THEREFORE,**

IT IS ORDERED:

1. That the proposed Electric Vehicle Rate Design Policy Statement set forth in Annex A be issued for comment.

2. That the Law Bureau shall submit this Order and Annex A to the Governor's Budget Office for review of fiscal impact.

3. That upon receipt of a fiscal note from the Governor's Budget Office, the Secretary shall certify this Order and Annex A and that the Law Bureau shall deposit them with the Legislative Reference Bureau for publication in the *Pennsylvania Bulletin*.

4. That interested parties shall have 30 days from the date of publication of this Order and Annex A setting forth the proposed policy statement in the *Pennsylvania Bulletin* to file comments with the Secretary.


5. That interested parties shall have 60 days from the date of publication of this Order and Annex A setting forth the proposed policy statement in the *Pennsylvania Bulletin* to file reply comments with the Secretary.

6. That comments should be eFiled through the Commission’s eFiling System. You may set up a free eFiling account with the Commission at <https://efiling.Commission.pa.gov/> if you do not have one. Filing instructions may be found on the Commission’s website at http://www.Commission.pa.gov/filing_resources.aspx. Comments containing confidential information may not be eFiled but must be emailed to Commission Secretary Rosemary Chiavetta at rchiavetta@pa.gov rather than eFiled.

7. That a copy of this Order and Annex A be filed at Docket No. P-2022-3030743 and be served upon all jurisdictional electric distribution companies, the Office of Consumer Advocate, the Office of Small Business Advocate, the Bureau of Investigation and Enforcement, the Department of Environmental Protection and all parties who filed comments at Docket No. P-2022-3030743.

8. That the contact person for technical issues related to this proposed policy statement is Regi Sam, Energy and Conservation Analyst, (717)-772-2151 or rsam@pa.gov. The contact persons for legal issues are Joseph P. Cardinale, Jr., Assistant Counsel, (717)-787-5558 or jcardinale@pa.gov; and Tiffany L. Tran, Assistant Counsel, (717)-783-5413 or tiftran@pa.gov. The contact person for regulatory issues is Karen Thorne, Regulatory Review Assistant, (717)-772-4597 or kathorne@pa.gov.

BY THE COMMISSION,


Rosemary Chiavetta
Secretary
(SEAL)

ORDER ADOPTED: October 19, 2023

ORDER ENTERED: November 15, 2023

ANNEX A
TITLE 52. PUBLIC UTILITIES
PART I. PUBLIC UTILITY COMMISSION
Subpart C. FIXED SERVICE UTILITIES
CHAPTER 69. GENERAL ORDERS, POLICY STATEMENTS
AND GUIDELINES ON FIXED UTILITIES

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ELECTRIC UTILITY RATE DESIGN FOR ELECTRIC VEHICLE CHARGING

§ 69.3551. Purpose and scope.

Due to Federal and State policy initiatives to promote the proliferation of electric vehicles, as defined in the Vehicle Code, 75 Pa.C.S. §§ 101-9802, the Commission is encouraging development of rate structures for electric-vehicle charging customers. Electric-vehicle charging will increase demand on existing infrastructure, and it is imperative that electric distribution companies are prepared to address this increased demand with distribution and default service generation rate structures that properly signal to electric-vehicle charging customers to incentivize increased capacity utilization of the distribution system. The Commission’s policy on electric-vehicle charging also encompasses fairness and equity principles that electric distribution companies are to consider in developing electric-vehicle charging rates.

§ 69.3552. Electric Vehicle Charging Rate Tariffs.

The Commission encourages all electric distribution companies to develop tariffs with distribution and default service generation rates for the purpose of implementing rates specifically for electric-vehicle charging customers. These distribution and default service generation electric-vehicle charging tariffed rates should reflect the actual costs of providing charging infrastructure and services, including the cost of electricity, maintenance, and administrative expenses in a manner that avoids unreasonable cross-subsidization between customers.

§ 69.3553. Electric Vehicle Charging Rate Design.

To promote efficient use of electric-vehicle charging infrastructure and to manage electric grid demand, public utilities should consider variable rates for electric-vehicle customers based on the time of day and the level of demand on the electric grid. This means that electric-vehicle charging rates should be higher during peak demand hours and lower during off-peak hours. We recommend that electric distribution companies develop electric-vehicle distribution rates with cost-of-service principles that incentivize increased network capacity utilization of the distribution system. Electric distribution companies should also take into consideration rates for direct current fast chargers,

including demand charges, to manage electric grid stress during peak hours. We also recommend that electric distribution companies develop electric-vehicle charging default service generation rates that, at a minimum, properly reflect the cost of generation services during times of system stress. These default service generation rates may include use of time-of-use rates that use on and off-peak periods which appropriately incentivize the movement of charging consumption to off-peak periods or periods of less system stress.

The Commission recommends that electric-vehicle charging distribution and default service generation rates should be flexible and adaptable to changing circumstances and technologies. As such, electric-vehicle charging distribution and default service generation rates should be periodically reviewed and adjusted, as necessary, to ensure that they remain fair, cost-effective, and efficient.

§ 69.3554. Electric Vehicle Charging Rate Equity.

The Commission recommends that electric-vehicle charging distribution and default service generation rates be designed to promote fairness and equity. As such, the distribution and default service generation electric-vehicle charging rates should not discriminate against certain types of electric vehicles or drivers, and should not create undue financial burdens for low-income customers or disadvantaged communities. The Commission recommends that electric distribution companies consider impacts on low-income customers due to the design of their distribution and default service generation electric-vehicle charging rates. Electric distribution companies may need to consider customer-specific and electric distribution company region-specific rates to best serve the needs of their communities. It is important that electric distribution companies prioritize customer education to encourage efficient and effective use of electric-vehicle charging infrastructure and proper knowledge of available distribution and default service generation rates.