BEFORE THE
MARYLAND PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION OF POTOMAC ELECTRIC POWER COMPANY FOR AN ELECTRIC MULTI-YEAR PLAN FOR THE DISTRIBUTION OF ELECTRIC ENERGY	* * * * *	Case No. 9702

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DIRECT TESTIMONY

OF

COURTNEY LANE

ON BEHALF OF THE OFFICE OF PEOPLE'S COUNSEL

December 15, 2023

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DIRECT TESTIMONY OF
COURTNEY LANE

INTRODUCTION

Q. Please state your name and business address.

A. My name is Courtney Lane. I am a principal associate at Synapse Energy Economics, Inc. (Synapse) located at 485 Massachusetts Avenue, Suite 3, Cambridge, MA 02139.

Q. Please describe Synapse Energy Economics, Inc.

A. Synapse is a research and consulting firm specializing in electricity and gas industry regulation, planning, and analysis. Our work covers a range of issues, including economic and technical assessments of demand-side and supply-side energy resources; energy efficiency policies and programs; integrated resource planning; electricity market modeling and assessment; renewable resource technologies and policies; and climate change strategies. Synapse works for a wide range of clients, including attorneys general, offices of consumer advocates, public utility commissions, environmental advocates, the U.S. Environmental Protection Agency, the U.S. Department of Energy, the U.S. Department of Justice, the Federal Trade Commission, and the National Association of Regulatory Utility Commissioners. Synapse has over 40 professional staff with extensive experience in the energy industry.

Q. Please describe your professional and educational experience.

A. I have 19 years of experience in energy policy and regulation. At Synapse, I work on issues related to performance-based regulation, grid modernization, benefit-cost analysis, rate and bill impacts, and review of distributed energy resource and electric vehicle utility filings. Prior to working at Synapse, I was employed by National Grid as the Growth Management Lead for New England where I oversaw the development of customer products, services, and business models for Massachusetts and Rhode Island. In previous roles at National Grid, I led the development of the Rhode Island Annual and Three-Year Energy Efficiency Plans and oversaw the associated benefit-cost models. Prior to joining National Grid, I worked on regulatory and state policy issues pertaining to demand side management, retail competition, net metering, and the Alternative Energy Portfolio Standard for Citizens for Pennsylvania's Future. Before that, I worked for Northeast Energy Efficiency Partnerships, Inc. where I promoted energy efficiency throughout the Northeast.

I hold a Master of Arts in Environmental Policy and Planning from Tufts University and a Bachelor of Arts in Environmental Geography from Colgate University. My resume is attached as Exhibit CL-1.

Q. Have you previously submitted testimony to the Maryland Public Service Commission?

A. Yes. I submitted testimony on behalf of the Office of People's Counsel on matters related to utility electric vehicle (EV) programs in Case No. 9645, Baltimore Gas and Electric Company's (BGE) application for an electric and gas multi-year rate plan (MRP); Case No. 9655, Potomac Electric Power Company's (Pepco or the company) application for an electric MRP; Case No. 9681, Delmarva Power & Light Company's application for an electric MRP; Case No. 9695, Potomac Edison Company's application for adjustments to its retail electric rates; Case No. 9692, BGE's application for a second electric and gas MRP; and Case No. 9696, BGE's application for an electric school bus pilot program.

Q. Have you previously submitted testimony in proceedings before other state commissions or agencies?

A. Yes. I have testified and participated in regulatory proceedings before the Rhode Island Public Utilities Commission, the Pennsylvania Public Utility Commission, the Public Service Commission of the District of Columbia, the New Hampshire Public Utilities Commission, and the New Mexico Public Regulation Commission.

Q. On whose behalf are you appearing in this proceeding?

A. I am presenting testimony on behalf of the Office of People's Counsel (OPC).

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to discuss three aspects of Pepco's application for an MRP for the distribution of electric energy: (1) the proposed portfolio of electrifying transportation programs presented by witness David S. Schatz, (2) the benefit-cost analysis (BCA) of Pepco's existing and proposed transportation electrification programs presented by witness Ryan M. Hledik, and (3) the proposed cost recovery structure of Pepco's climate solutions programs presented by witness Robert T. Leming.

Q. What materials did you rely on to develop your testimony?

A. The sources for my testimony are Pepco's application and responses to discovery requests, public documents, and my personal knowledge and experience.

Q. Was this testimony prepared by you or under your direction?

A. Yes. My testimony was prepared by me or under my direct supervision and control.

Q. Are you aware that on November 28, 2023, OPC filed a motion to strike or, alternatively, dismiss Pepco's electrification proposals, including the electrifying transportation programs?

A. Yes. Section II of my testimony assesses the substance of Pepco's electrifying transportation program and provides recommendations for the Commission to consider if OPC's motion is denied.

I. Summary and Recommendations

A. Conclusions and recommendations for the electrifying transportation programs.

Q. Please summarize your primary conclusions regarding Pepco's proposed electrifying transportation portfolio of programs.

A. There are two primary roles that utilities should play to support the electrification of the transportation sector. *First*, utilities should implement programs and economic incentives to mitigate the impact and subsequent costs of increased EV charging on the electric grid, including rate design, managed charging, and demand response. *Second*, utilities should support necessary utility-side make-ready investments to support the deployment of private sector EV charging infrastructure. Only the utility can perform these roles and their doing so will not negatively impact the private market. Focusing on services that the private market cannot provide enables utilities to reduce ratepayer cost burdens while driving competition amongst EV service providers in the marketplace, which in time, can drive down the costs of meeting Maryland's aggressive electrification goals.

My primary conclusion is that Pepco's make-ready programs proposed within the electrifying transportation portfolio generally align with the appropriate role for utilities in the EV marketplace, with some exceptions related to proposals to offer incentives for customer-side make-ready work and EV charger infrastructure and installation. However, I also

conclude that Pepco's proposed private fleet charging program is duplicative of Pepco's existing fleet offerings that will remain active in the first year of its proposed MRP. Because these two fleet programs have different components and incentive levels, implementing both programs simultaneously will cause confusion to customers and the private market. Finally, I find that Pepco's proposed electrifying transportation portfolio lacks proposals to continue and expand rate designs and programs to encourage off-peak EV charging.

Q. Please summarize your recommendations for Pepco's proposed portfolio of electrifying transportation programs.

A. My primary recommendations are:

- The Commission should approve the destination charging make-ready program with several modifications, including the removal of customer-side make-ready and customer site incentives, a reduction in the utility-side make-ready incentive to 50 percent for locations that are not accessible to the public, and to only provide the 100 percent utility-side make-ready incentive to small businesses located in J40 communities.
- The Commission should approve the public transit make-ready program subject to Pepco providing additional data to support the program incentive levels and providing the average costs by program

component (i.e., utility- and customer-side make-ready and engineering).

- The Commission should approve the multifamily make-ready program with the modification that the number of ports per site eligible for an incentive be based on the size of the multifamily property and the total number of parking spaces at the property to ensure a more equitable distribution of funds across the multifamily sector.
- The Commission should reject the private fleet charging program and instead direct Pepco to request an increase to the budget for its existing fleet utility-side make-ready program as approved in Case No. 9478 to avoid duplication and market confusion. The Commission should also reject the proposal to provide customer-side make-ready investments and incentives for EV chargers and installation because Pepco has not justified these incentives.
- The Commission should reject the fleet assessments proposed in the EV make-ready planning and support program because Pepco has an existing fleet assessment program with remaining funds that will continue through September 2025. However, I recommend that the Commission approve the company's proposal to provide 30 DCFC assessments over the MRP term.

B. Conclusions and recommendations for the EV BCA.

Q. Please summarize your primary conclusions and recommendations regarding Mr. Hledik's BCA.

A. I find that Mr. Hledik appropriately applied the Maryland EV Jurisdiction-Specific Test (MD EV-JST)[1] to Pepco's existing Phase I EV programs and to its proposed portfolio of electrifying transportation programs in the MRP. I recommend that the Commission recognize Pepco's BCA as comporting to the Maryland EV-BCA Framework.

C. Conclusions and recommendation for the cost recovery of the climate solutions programs.

Q. Please summarize your conclusions and recommendations regarding Pepco's proposed cost-recovery structure of its climate solutions programs.

A. If any cost recovery is allowed for the climate solutions programs in this MRP, Pepco's proposal for a regulatory asset should be denied. This cost recovery mechanism is contrary to standard ratemaking, costlier for customers in the long-run, and unnecessary. Instead, non-capital expenditures associated with these programs should be expensed in the year incurred. Any capital costs should be treated in the same manner in which Pepco recovers other capital costs within this MRP.

[1] Electric Vehicle Benefit/Cost Analysis Methodology by the Maryland Joint-Utilities, In the Matter of the Petition of the Electric Vehicle Work Group for Implementation of a Statewide Electric Vehicle Portfolio, ML# 238013 (CN 9478, Dec. 1, 2021) at 17, *approved* via letter order dated Jan. 13, 2022, ML# 238539.

II. The electrifying transportation program portfolio should be modified.

A. Overview of Pepco's existing and proposed EV Programs.

Q. Does Pepco currently implement EV programs?

A. Yes. In 2018, Pepco along with the Maryland's other investor-owned utilities[2] and non-utility signatories, jointly filed a petition for implementation of a statewide electric vehicle portfolio (Phase I) in Case No. 9478.[3] In January 2019, the Commission approved the Phase I EV pilot programs in part, which included incentives and rates to support residential and commercial EV charging infrastructure and utility-owned and operated public charging stations.[4] Since that time, Pepco has proposed and received approval for additional EV programs to support the fleet sector, including an online fleet calculator tool, fleet assessments, make-ready incentives, and Electric Vehicle Supply Equipment (EVSE) incentives.[5] In total, the approved budget for Pepco's current suite of EV programs is $22.3 million.[6]

[2] Baltimore Gas and Electric Company, Delmarva Power & Light Company, and The Potomac Edison Company.

[3] Petition for Implementation of a Statewide Electric Vehicle Portfolio, ML# 218613 (CN 9478, Jan 2, 2018).

[4] Order No. 88997, In The Matter of the Petition of the Electric Vehicle Work Group for Implementation of a Statewide Electric Vehicle Portfolio, (CN 9478, Jan 14, 2019).

[5] Order No. 90036, In The Matter of the Petition of the Electric Vehicle Work Group for Implementation of a Statewide Electric Vehicle Portfolio (CN 9478 Jan. 11, 2022) (approving fleet calculator); ML# 242312 (CN 9478, Sept. 14, 2022) (approving fleet programs).

[6] Potomac Electric Power Company and Delmarva Power & Light Company Semi-Annual EV Pilot Program Progress Report, Appendix A, ML# 304387 (CN 9478, Aug. 1, 2023).

Q. What is the anticipated end date of Pepco's Phase I EV programs?

A. Most of Pepco's existing EV programs are set to expire on December 31, 2023.[7] However, the Smart Charge Management (SCM) pilot ends on December 31, 2024, the fleet programs expire at the end of September 2025, and the public charging program expires on December 31, 2025.[8]

Q. Does Pepco propose additional EV programs in its MRP application?

A. Yes. Though not referred to as a Phase II of its EV programs, Pepco is requesting $43.6 million in additional funds over the MRP period to support a suite of EV programs. Pepco proposes five EV programs, which it refers to as the electrifying transportation portfolio. The portfolio includes costs associated with the ongoing operation and maintenance (O&M) support for its fleet of public EV charging stations and four new programs primarily focused on make-ready infrastructure. The company also proposes funding for EV make-ready planning and support, which I include in the summary of Pepco's proposed EV-related budgets provided in **Table *1*** below. I summarize and evaluate each proposed program in more detail within the following sections of my testimony.

[7] Order No. 88997, In The Matter of the Petition of the Electric Vehicle Work Group for Implementation of a Statewide Electric Vehicle Portfolio (CN 9478. Jan 14, 2019).
[8] ML# 241459 (CN 9478, July 13, 2022) (approving SCM pilot); ML# 242312 (CN 9478, Sept. 14, 2022) (approving fleet programs); ML# 301809 (CN 9478, March 15, 2023) (approving extension of public charging programs).

Table 1. Pepco's Proposed Electrifying Transportation Programs

Program	2024	2025	2026	2027	Total
Public Charging Stations O&M	$513,637	$684,849	$684,849	$684,849	$2,568,184
Destination Charging Make-Ready	$3,829,930	$5,402,574	$6,438,574	$4,958,574	$20,629,652
Public Transit Bus Make-Ready	$1,657,011	$2,329,348	$2,539,348	$2,359,348	$8,885,055
Multifamily Make-Ready	$906,567	$1,714,323	$2,028,923	$1,177,923	$5,827,736
Private Fleet Charging	$954,967	$1,123,289	$1,168,289	$1,022,039	$4,268,584
EV Make-Ready Planning Support	$294,350	$390,833	$390,833	$390,833	$1,466,850
Total	**$8,156,462**	**$11,645,216**	**$13,250,816**	**$10,593,566**	**$43,646,061**

Sources: Schedule (DSS)-1 at 10, and Schedule (DSS)-3, at 6.

Q. Did Pepco conduct a BCA of its proposed electrifying transportation programs?

A. Yes. Mr. Hledik conducted a BCA of the portfolio of proposed programs in accordance with the EV-BCA Framework developed by the PC44 Electric Vehicle Work Group (EV Work Group), as included in the Electric Vehicle Benefit/Cost Analysis Methodology by the Maryland Joint-Utilities (EV-BCA Whitepaper) and approved by the Commission.[9] I assess Mr. Hledik's application of the EV-BCA Framework for Pepco's existing and proposed EV programs in Section III of my testimony. Table 2 below shows the resulting benefit-cost ratios (BCR) for the Maryland EV Jurisdiction

[9] Electric Vehicle Benefit/Cost Analysis Methodology by the Maryland Joint-Utilities*, In the Matter of the Petition of the Electric Vehicle Work Group for Implementation of a Statewide Electric Vehicle Portfolio,* ML No. 238013 (CN 9478, Dec. 1, 2021) at 17, *approved* via letter order dated Jan. 13, 2022, ML# 238539 (Jan. 13, 2022).

Specific Test (MD EV-JST), the primary cost-effectiveness test for utility EV programs.

Table 2. BCA Results for Pepco's Proposed Programs

Program	MD EV-JST
Destination Charging Make-Ready	1.99
Public Transit Bus Make-Ready	1.05
Multifamily Make-Ready	1.95
Private Fleet Charging	1.11

Source: Errata to Hledik Direct Testimony, Figure 6.

The results of the BCA indicate that each of Pepco's proposed electrifying transportation programs is cost-effective with a BCR over 1.0. Since the public charging stations O&M program represents a continuation of operational costs related to Pepco's ownership and operation of its public charging network, Mr. Hledik assessed those costs as part of the BCA for Pepco's existing public charging network program.[10] The overall BCR for the public charging network is 1.57.[11] Mr. Hledik did not conduct a BCA for the EV planning make-ready support program.

B. Continuation of utility ownership and operation of public charging should be informed by the Phase I evaluation.

Q. Please summarize Pepco's proposal to continue operation of its public charging stations.

A. Pepco proposes a public charging station O&M program to provide the necessary funding to continue the operation and maintenance of its network

[10] Direct Testimony of Ryan M. Hledik ("Hledik Direct") at 24, n. 18.
[11] *Id.* at 17, Figure 3.

of 250 company-owned public chargers, previously approved as part of Phase I in Order No. 88997, until the end of the MRP period. Currently, the company only has Commission approval to own and operate the public charging stations until the end of 2025. Pepco indicates that it will operate its public stations in a manner that achieves an uptime rate of 97 percent or greater through remote monitoring, customer platform feedback, corrective maintenance, and preventive maintenance.[12]

Q. Do you support Pepco's proposal to continue owning and operating public charging stations until the end of the MRP?

A. No, I do not. I find it is premature to approve an extension of the public charging program beyond 2025 due to the forthcoming evaluation and final review of the utility Phase I EV programs.

Q. Please summarize the Phase I EV program evaluation and review process.

A. In Order No. 88997, the Commission set forth evaluation requirements for the Maryland utilities' Phase I EV programs. Specifically, the Commission required the completion of a final EV program report by March 1, 2024, and stated that a final program review will take place through a legislative-style hearing in May 2024.[13] The Commission further indicated it would endeavor

[12] Schedule DSS-1, at 1.
[13] Order No. 88997 at 74.

to issue a timely order following the conclusion of the final program review.[14]

Q. Does Pepco explain why it seeks approval to extend a Phase I EV program prior to the completion of the final evaluation and program review?

A. The company does not answer this question specifically for its public charging program, but states more generally that it is proposing additional programs prior to the conclusion of Phase I "to minimize the lack of availability of customer programs."[15]

Q. Do you agree with Pepco's justification?

A. No, I do not. The final Phase I EV program review will take place in May 2024.[16] Pepco has Commission approval to continue owning and operating its network of public chargers until the end of December 2025.[17] Therefore, Pepco will be able to continue providing public charging service to customers while awaiting the Commission's review and order on Phase I programs, which includes the public charging program.

In addition, Order No. 88997 provides specific guidance on the continuation of Phase I EV programs at the end of the pilot period: "For a

[14] Order No. 88997 at 74.

[15] Exhibit CL-2 (Pepco Response to OPC DR 8-3 and OPC DR 8-1(b)).

[16] Order No. 88997 at 74.

[17] ML# 301809; *see Semi Annual Progress Report of Delmarva Power & Light Company and Pepco Regarding Implementation of Approved Electric Vehicle Program Offerings*, ML# 301131 (CN 9478, Feb. 1, 2023).

transition plan, after the pilot study concludes, customers enrolled in a pilot program or rate offering can elect to continue in that posture pending a final decision by the Commission to extend or expand the applicable program."[18]

Q. What is your recommendation for the proposed public charging stations O&M program?

A. I recommend that the Commission reject Pepco's proposal to operate and maintain its network of public chargers beyond 2025. The appropriate time for the Commission to decide on an extension of Pepco's public charging program is during the final Phase I evaluation and program review.

Potomac Edison came to a similar conclusion in its most recent semi-annual report to the Commission. In this report, Potomac Edison sought an extension of its public charging program only though the end of 2024, noting that program's future would be discussed during the post-Phase I review period in early 2024 where various stakeholders can provide appropriate input and feedback.[19]

Continuation of Pepco's public charging program through the end of 2025 provides an appropriate balance between the need to avoid service disruptions to customers and the ability to incorporate findings from the

[18] *Id*. at 73.

[19] *Potomac Edison's Revised Semi-Annual EV Pilot Program Progress Report* at 11–12, ML# 304779 (CN 9478, Aug. 28, 2023).

Phase I evaluation to ensure that continuation of this program remains in the best interest of ratepayers and the broader EV marketplace.

C. Pepco's make-ready programs should be approved with modifications.

i. The role of utilities in make-ready programs.

Q. Please define what is meant by the term "make-ready" in the context of transportation electrification.

A. The term "make-ready" is typically defined as the electrical equipment and labor necessary to connect an EV charger to the electric distribution system. There are two distinct components of make-ready work: utility-side (i.e., up to and including the customer's meter) and customer-side (i.e., behind-the-meter).

In recent comments to the Commission regarding BGE's proposed Phase II EV programs, OPC provided the following definitions for utility-side and customer-side make-ready work based on recent commission orders in California and the District of Columbia:[20]

- "Utility-Side Make-Ready" means utility infrastructure provided to support electric vehicle charging, including poles, vaults, service drops, transformers, mounting pads, trenching, conduit, wires, cables, meters, other equipment, and associated engineering and civil construction work on the utility side of the meter, up to and including the meter.

- "Customer-Side Make-Ready" means all the charging equipment necessary to provide electrical energy to charge an electric

[20] *Office of People's Counsel Comments on Baltimore Gas and Electric Company's Electric Vehicle Program Phase II Proposal* at 18, ML# 305425 (CN. 9478, Oct. 3, 2023).

vehicle's battery "behind-the-meter," including wiring, trenching, cable, panel, electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatuses installed specifically to transfer energy between the premises wiring and the vehicle.

Q. Why is it important to distinguish between utility-side and customer-side make-ready?

A. This distinction is important because determining whether the utility or the private market should perform the make-ready work and take ownership of any installed equipment will depend on whether the work is performed on the utility- or customer-side of the meter. In addition, the way in which a utility recovers costs for utility-side make-ready infrastructure should be different than how it recovers costs for financial incentives it provides to the customer to support customer-side make-ready work.

For example, utility-side make-ready work is aligned with the traditional functions of a utility to provide adequate distribution system infrastructure to serve its customers. This is a function that can only be performed by the utility and therefore has no adverse impact on the private sector. Utility-side make-ready infrastructure includes capital assets that are owned by the utility. These are capital costs that should be recovered similar to other distribution capital assets.

Conversely, customer-side make-ready equipment is owned by the customer (often referred to as a "site host" in this context) and the installation of the equipment can be performed by a certified electrician or

electric vehicle supply equipment (EVSE) service provider. It therefore follows that utility ownership of customer-side make-ready infrastructure or performance of the labor associated with that infrastructure impedes competition from these services in the private sector while increasing rates for all customers. For these reasons, a utility should not be permitted to own or put into rate base customer-side make-ready infrastructure. In some jurisdictions, utilities provide rebates to customers to help offset the costs associated with customer-side make-ready costs, which allows the customer to choose its vendor based on cost, quality, and other selection factors. In this case, the costs associated with the rebates should be considered utility expenses and should not be capitalized.

As I will explain more in Section IV of my direct testimony, utilities should not capitalize incentives to support customer-side make-ready investments. The utility does not and should not own customer-side make-ready equipment. If utility-side and customer-side make-ready investments are combined, it will not be possible to bifurcate the cost-recovery approach. A failure to bifurcate such investments has an impact on the overall cost of make-ready programs to customers. Treating both utility-side and customer-side make-ready incentives as a capital expense through regulatory asset treatment increases the long-term costs due to the additional costs associated with including these programs in the rate base.

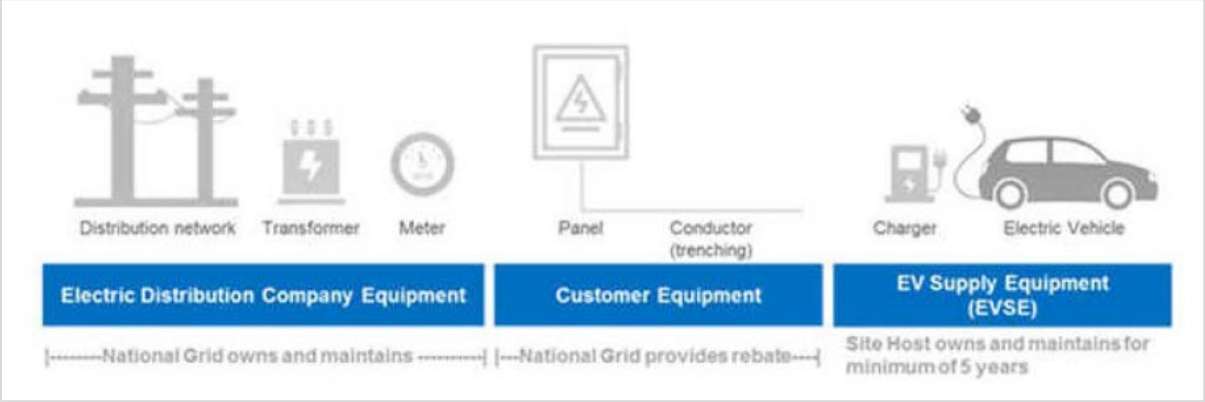
Q. Given your recommendation to limit a utility's make-ready role to utility-side make-ready infrastructure, how should a make-ready program be structured?

A. A make-ready program should be structured in a manner that allows for utilities to support the electrification of the transportation markets while complementing—not supplanting—the private sector. Utilities should be responsible for conducting utility-side make-ready work and be permitted to recover those costs in the same manner as other capital investments. Program incentives should be structured to help offset the costs that customers would otherwise pay to the utility to conduct the necessary utility-side make-ready work. For behind-the-meter work, customers should be responsible for procuring private capital to complete the necessary upgrades and selecting an EVSE provider or other non-utility entity to perform customer-side make-ready work.

In areas where private investment in EV charging infrastructure has been slow to materialize, such as the multifamily sector, it may be appropriate for utilities to support customer-side make-ready infrastructure. The role of utilities in this space should be limited to administering financial incentives to the customer, and not performing the labor or owning the upgrades. This structure allows customer choice in the outsourcing of make-ready work, which can drive competition across service providers and help to drive down costs over time.

Figure 1 provides an illustration of this make-ready program design.

Figure 1. Illustration of Incentive Structure for Make-Ready EV Programs



Source: Evgo Presentation at the March 17, 2022 PC44 EV WG Meeting.

As depicted in Figure 1, the utility owns and maintains the utility-side make-ready work and provides an incentive to the customer to offset the costs of customer-side make-ready work, but it does not own or maintain that equipment. Lastly there is a commitment from the customer (i.e., site host) to continue owning and maintaining the associated EV charging equipment for a period of five years.

ii. Recommended improvements to Pepco's proposed make-ready programs.

Q. Please summarize Pepco's proposal for make-ready programs.

A. Pepco proposes three programs specifically targeted at addressing the high up-front cost of make-ready infrastructure and work necessary to prepare a location for the installation and connection of EV chargers to the electric grid. The proposed programs include: (1) destination charging make-ready;

(2) public transit bus charging make-ready; and (3) multifamily charging make-ready.

Q. How does Pepco define "make-ready"?

A. The company defines make-ready infrastructure as "the equipment and materials required to upgrade service in front of the meter (FTM), or on the utility side, and behind the meter (BTM), or on the customer side, to support EV charging."[21]

Q. Do you support this definition?

A. I do not. As indicated earlier, I recommend that Pepco adopt two separate definitions for make-ready: one for "utility-side make-ready" and a second for "customer-side make-ready." I specifically recommend that Pepco adopt the definitions recommended by OPC in its comments on BGE's EV Phase II Proposal, which I cite above.

Q. Does Pepco propose to offer incentives for both utility-side and customer-side make-ready infrastructure?

A. Yes. Across each of the make-ready programs, Pepco proposes to provide incentives to help offset the costs associated with upgrading service in front of the meter (on the utility side) and behind the meter (on the customer side).[22] Depending on the program, the incentives are designed to cover up

[21] Direct Testimony of David S. Schatz ("Schatz Direct") at 6, n. 2.
[22] Schatz Direct at 11, lines 2-5.

to 80 percent or 100 percent of the make-ready costs.[23] Except for the public transit bus charging make-ready program, Pepco includes incentive caps separately for utility-side and customer-side make ready costs.[24]

Q. How will make-ready incentives flow to program participants?

A. The company plans to provide a single rebate to customers that is inclusive of all applicable utility-side and customer-side incentives.

Q. Will participants be able to choose their own electrician or vendor to perform the customer-side make-ready work?

A. Yes. Pepco indicates that participating customers can select their own "electrician, contractor, or other licensed vendor" to perform the customer-side make-ready work.[25] The company also indicates that it will establish a process through which the program applicant (i.e., customer or site host) can assign the make-ready incentive to an electrician or vendor, which would allow for the electrician or vendor to receive the incentive check directly from Pepco.[26]

Q. Do you have any concerns with Pepco's proposed approach?

A. In general, I am supportive of Pepco's proposal to maintain a competitive private sector market by not proposing to own or install any customer-side make-ready infrastructure. The company's proposal to provide support to

[23] Schatz Direct at 17, lines 21-23.
[24] Exhibit CL-2 (Pepco Response to OPC 10-8 Attachment Electronic Only).
[25] Exhibit CL-2 (Pepco Response to OPC 8-5(e)).
[26] *Id.*

customer-side make-ready work through incentives, rather than installation and ownership, aligns with my recommended approach for utility make-ready program design.

However, I do not support the inclusion of incentives for customer-side make-ready programs across all programs. As summarized above, utility programs should focus on utility-side make-ready incentives and provide additional incentives to support customer-side make-ready work when there are clear market barriers that need to be overcome. I summarize each of Pepco's make-ready programs and provide my recommendations in more detail below.

1. Recommended improvements to the destination charging make-ready program.

Q. Please summarize Pepco's proposed destination charging make-ready program.

A. The company's proposed destination charging make-ready program seeks to provide utility-side and customer-side make-ready incentives to support the installation of approximately 1,000 new smart Level 2 charging stations at commercial facilities and travel destinations.[27] Pepco defines "destination charging" as locations where drivers park for extended periods of time such as workplaces, restaurants, stores, entertainment venues, community centers,

[27] Schedule DSS-1 at 3.

and other businesses.[28] Pepco indicates that 40 percent of the 1,000 ports (400 ports) will be earmarked to sites located in Justice 40[29] (J40) communities or that are associated with small businesses.[30]

Pepco proposes to provide incentives for up to 100 percent of make-ready costs for locations in J40 communities and 80 percent of make-ready costs for non-J40 locations, with specific caps for utility-side and customer-side make-ready costs.[31] The company also proposes to provide up to $4,000 per port for sites in J40 communities to help support customer site costs, which include networking and telecommunications fees, maintenance plans, and signage.[32] Table 3 summarizes the proposed incentive levels.

Table 3. Proposed Destination Charging Make-Ready Program Incentives

	Ports	% of Make-Ready Costs	Incentive Cap			Total MRP Incentive Budget
			Utility-Side Make-Ready	Customer-Side Make-Ready	Customer Site Cost Cap	
Non-J40	600	80%	$2,400	$9,600	$0	$7,200,000
J40 or Small Business	400	100%	$3,000	$12,000	$4,000	$7,600,000

Source: Schedule (DSS)-1 at 3.

[28] *Id.*
[29] Pepco indicates that Justice 40 represents the White House's Justice 40 Initiative. *See* Schedule DSS-1 at 3, n. 3.
[30] *Id.* at 3.
[31] *Id.*
[32] *Id.*

The make-ready incentives for both utility-side and customer-side make-ready costs will be provided to customers as a rebate in the form of a reimbursement check.[33] The calculated incentive level will be based on the customer's eligible costs.[34]

Q. How will Pepco determine if a site is in a J40 community?

A. Pepco will identify J40 communities using the U.S. Department of Energy (DOE) definition of disadvantaged communities (DAC). The company indicates that it will use DOE's mapping tool to determine if a customer is located in a J40 community and is eligible for incentives up to 100 percent.[35]

Q. Will Pepco require program participants to continue supporting the operation of the charging site for a certain number of years?

A. Yes. Pepco indicates that it will require the customer to commit to supporting the operation of the charging site for five years. The company will also require that the sites have chargers that "work as intended, maintain cloud connected networking services, and report charging session and utilization data to Pepco."[36] At the end of the five-year period, customers will have complete control over the stations.[37]

[33] *Id.* at 4.
[34] Exhibit CL-2 (Pepco Response to OPC DR 8-17(g)).
[35] Exhibit CL-2 (Pepco Response to Prince George's County ("PCG") DR 1-14).
[36] Exhibit CL-2 (Pepco Response to OPC DR 8-18).
[37] Exhibit CL-2 (Pepco Response to OPC DR 31-1(c)).

Q. Does the program require the resulting installed chargers be accessible to the public?

A. No. Pepco states that the program is open to new and existing commercial facilities that "may be accessible to the public or a subset of the public, such as employees at a workplace."[38]

Q. How did Pepco determine the destination charging make-ready program incentive caps?

A. The company did not base its incentive caps on average costs in its service territory. Instead, Pepco relied upon an ICF literature review of EV charging costs specific to utility-side and customer-side costs associated with Level 2 chargers.[39] Pepco also notes that make-ready costs at commercial facilities can vary significantly based on the installation type, available capacity at the site, and customer preferences regarding the point of service, noting that some sites may have sufficient capacity and do not require utility-side costs.[40]

Q. What is your assessment of Pepco's proposed incentive levels?

A. I find that the make-ready incentives are too large for private charging locations that are not accessible to the public (i.e., workplaces, patron designated parking, and privately-owned pay-to-park lots). The benefit of charging infrastructure at these locations would only benefit employees or

[38] Schatz Direct at 21, lines 2-4.
[39] Exhibit CL-2 (Pepco Response to OPC DR 8-17(b-e) and OPC DR 8-9).
[40] *Id.*

customers of the business. Private companies should be motivated to provide EV charging as part of the benefits offered to their employees and patrons.

I also disagree with Pepco's proposal to provide incentives for customer-side make-ready work. As indicated earlier in my testimony, the main role of the utility should be to focus on utility-side make-ready work. Incentives for customer-side make-ready should only be offered when there is a clear market barrier to EVSE deployment. In this case, Pepco has not justified why entities located in and outside of J40 communities require both utility-side and customer-side make-ready incentives to move forward with EV charging infrastructure, nor has the company provided data specific to the costs of customer-side make-ready work in its service territory.

While I agree it is critical to provide customers residing in J40 communities with equitable access to the benefits of transportation electrification, providing extra subsidies to a business just because it is located in a J40 community may lead to ratepayers unduly subsidizing the private sector. For example, I do not find that ratepayers should provide extra subsidies to "big-box stores" (like Target or Walmart) solely because they are located in a designated J40 community within Pepco's service

territory.[41] They are major corporations with access to private capital and should not receive customer-side make-ready incentives or the additional incentive to support customer site costs. While subsidies are not suitable for large corporations, it may be appropriate for Pepco to provide incentives to smaller business serving the community if the company can provide analytical support to demonstrate market barriers.

Q. What are your proposed modifications to the destination charging make-ready program?

A. I recommend that Pepco make several modifications to its proposed incentive levels for destination charging.

For non-J40 locations, I recommend removing incentives for customer-side make-ready work; for utility-side work, I recommend limiting incentives to 50 percent for locations that are not accessible to the public. This recommendation aligns with utility make-ready programs implemented in New York.[42] In New York, the utilities tier make-ready incentives are based on whether the charging site is publicly accessible. For non-publicly

[41] Under Pepco's proposal, the Target located in the Oxon Hill neighborhood in Prince George's County would be eligible for make-ready incentives since that neighborhood is identified as a disadvantaged community according to the Climate and Economic Justice Screening Tool. *See* https://screeningtool.geoplatform.gov/en/.

[42] *See Consolidated Edison Company of New York., Inc., Electric Vehicle Infrastructure Make-Ready Program Amended Implementation Plan* at 8, Case 18-E-0138 (N.Y. Pub. Serv. Comm'n., Aug. 15, 2022); *National Grid EV Infrastructure Make-Ready Program Implementation Plan* at 9, Case 18-E-0138 (N.Y. Pub. Serv. Comm'n., July 10, 2023).

assessable sites, the incentives cover up to 50 percent of make-ready costs versus up to 90 percent for publicly accessible sites.

For J40 locations, I recommend removal of incentives for customer-side make-ready work and customer site costs. I also recommend that the 100 percent utility-side make-ready incentive should only be provided to small businesses[43] in J40 communities to avoid over-subsidizing larger corporations. My recommendations are summarized in Table 4 below. The cells shaded in grey include my proposed modifications to the company's original proposal as summarized in Table 3 earlier in this section.

Table 4. Modifications to Destination Charging Make-Ready Program

	Ports	Accessibility	% of Make-Ready Costs	Incentive Cap		
				Utility-Side Make-Ready	Customer-Side Make-Ready	Customer Site Cost Cap
Non-J40	600	Public	80%	$2,400	$0	$0
		Private	50%	$1,500	$0	$0
J40 Small Business Only	400		100%	$3,000	$0	$0

[43] Pepco's EmPOWER Maryland small business program defines a small business as a business that uses 100 kW or less per month. *See* https://homeenergysavings.pepco.com/md/business/small-business.

2. Recommended improvements to the public transit make-ready program.

Q. Please summarize Pepco's proposed public transit make-ready program.

A. The company's proposed public transit make-ready program seeks to support the installation of new direct current fast charging (DCFC) charging infrastructure at approximately 35 sites by providing incentives to public transportation providers to help offset the costs of utility-side and customer-side make-ready costs and utility engineering costs.[44]

Pepco proposes to provide incentives for up to 100 percent of the customer- and utility-side make-ready costs in addition to the company's engineering costs necessary to interconnect these sites.[45] The total eligible incentive level is up to $170,000 per site as summarized in Table 5 below.

Table 5. Proposed Public Transit Make-Ready Program Incentives

	Sites	% of Make-Ready Costs	Incentive Cap	Total MRP Incentive Budget
			Utility- and Customer-Side Make-Ready (Includes Engineering)	
Public Transit Bus	35	100%	$170,000	$6,000,000

Source: Pepco Schedule (DSS)-1 at 5.

Q. What is Pepco's justification for providing 100 percent coverage of the make-ready costs?

[44] Schedule DSS-1 at 5.
[45] *Id.*

A. Pepco assumes that a large portion of the fleets being electrified by this program will serve a diverse population, including J40 and disadvantaged communities.[46] Pepco explains that the 100 percent incentive level aligns with the EV Fleet programs previously approved by the Commission for Pepco, BGE, and Delmarva Power, which provide a 100 percent incentive coverage to businesses serving disadvantaged communities.[47]

Q. Will Pepco track whether fleets are primarily benefiting J40 communities?

A. Pepco indicates that it has yet to establish criteria for how much of a fleet's operations or services need to occur in a J40 community but will request information from program participants via the application and ongoing engagement stages.[48]

Q. Will Pepco require program participants to continue supporting the operation of the charging site for a certain number of years?

A. Yes. Pepco indicates that it will require the customer to commit to operating the resulting charging site for five years.[49] At the end of the five-year period customers will have complete control over the stations.[50]

[46] Exhibit CL-2 (Pepco Response to OPC 8-20(i)).
[47] Exhibit CL-2 (Pepco Response to OPC 8-20(a)).
[48] Exhibit CL-2 (Pepco Response to OPC DR 8-20(j)).
[49] Exhibit CL-2 (Pepco Response to OPC DR 8-21).
[50] Exhibit CL-2 (Pepco Response to OPC DR 31-1(c)).

Q. Does Pepco explain what portion of the $170,000 incentive cap is expected to cover utility-side make-ready, customer-side make-ready, and utility engineering costs?

A. No. When asked this question in discovery, Pepco explains that due to the variety of bus depot location configurations and operational requirements, Pepco chose to provide the incentive cap on total make-ready costs to provide for greater flexibility to customers.[51]

Q. How does Pepco determine the public transit make-ready program incentive cap?

A. The company did not base its incentive caps on average costs in its service territory. Instead, Pepco relied upon a literature review from various sources listed in the "Fleet Transit Cost Sources" tab of OPC DR 8-9 Attachment Electric Only. While the company lists the program component (i.e., chargers, power upgrades, etc.) and the source, Pepco does not include the costs associated with the components, nor does it indicate how those were used to determine the make-ready and engineering incentives.[52]

Q. Are you generally supportive of a make-ready program for public transit?

A. Yes, I am. Electrification of the public transportation sector is critically important to ensure equitable distribution of benefits across all of Pepco's customers. While prices have declined over time, low-income customers still

[51] Exhibit CL-2 (Pepco Response to OPC DR 8-20(c)).
[52] Exhibit CL-2 (Pepco Response to OPC DR 8-20(d-e) and OPC DR 8-9).

face significant barriers to EV adoption due to the higher upfront costs compared to internal combustion engine (ICE) vehicles. In addition, studies have shown that low-income customers are less likely to own or lease a car due to economic constraints and are therefore more reliant upon public transportation. A report by the International Council on Clean Transportation indicates that over 50 percent of U.S. households living in poverty do not have access to a vehicle at least some of the time and over 25 percent of households earning less than $25,000 per year do not have a car.[53] The economic burden of car ownership prevents many Pepco customers from participating in its EV program offerings, even though those same customers are helping to fund those programs through rates.

Providing make-ready incentives to support the electrification of public transit buses will help to more equitably distribute the environmental and health benefits of electrification to all customers, not just those that can purchase EVs.

Q. Do you have any concerns with the public transit make-ready program as proposed?

A. Yes. I have two key concerns regarding the program as proposed. First, Pepco does not provide estimates of what portion of the incentive is

[53] Gorden Bauer *et. al.*, *When might lower-income drivers benefit from electric vehicles? Quantifying the economic equity implications of electric vehicle adoption*, International Council on Clean Transportation, at 17 (Feb. 2021), https://theicct.org/wp-content/uploads/2021/06/EV-equity-feb2021.pdf

intended to cover utility-side, customer-side, and utility engineering costs. Without this information it is not possible to assess the reasonableness of the incentive.

A second concern relates to how the program combines utility-side and customer-side incentives. As I describe earlier in this section, Pepco should not treat customer-side make-ready incentives as a capital expense through regulatory asset treatment, which increases the long-term costs due to the additional costs associated with including these programs in rate base. Instead, customer-side incentives should be treated as an expense because Pepco will not own or operate the resulting customer-side equipment. Combining utility-side and customer-side incentives makes it impossible to make this important distinction.

Q. What are your recommended improvements to the public transit make-ready program?

A. I recommend that the Commission require Pepco to include additional data to support its designed incentive levels and to provide average costs by program component (i.e., utility- and customer-side make-ready and engineering). The company should also redesign the incentive so that it covers 100 percent of the costs associated with utility-side make-ready and utility engineering costs first. Then, should Pepco determine that an additional incentive can be provided under the cap, it should provide that to the customer in the form of a rebate.

3. Recommended improvements to the multifamily make-ready program.

Q. Please summarize Pepco's proposal for a multifamily make-ready program.

A. Pepco's proposed multifamily make-ready program seeks to provide utility-side and customer-side make-ready incentives to support the installation of approximately 250 new smart Level 2 charging stations at multifamily locations. Pepco indicates that 40 percent of the 250 ports (100 ports) will be earmarked for locations in J40 communities.[54]

Pepco proposes to provide incentives for up to 100 percent of make-ready costs for locations in J40 communities and 80 percent of make-ready costs for non-J40 locations, with specific caps for utility-side and customer-side make-ready costs. The company also proposes to provide up to $4,000 per port for sites in J40 communities to help support customer site costs, which include networking and telecommunications fees, maintenance plans, and signage. Customers are eligible to receive incentives for up to 20 ports per site.[55] The proposed incentive levels are summarized in Table 6 below.

[54] Schedule DSS-1 at 7.
[55] *Id*.

Table 6. Proposed Multifamily Make-Ready Program Incentives

	Ports	% of Make-Ready Costs	Incentive Cap			Total MRP Incentive Budget
			Utility-Side Make-Ready	Customer-Side Make-Ready	Customer Site Cost Cap	
Non-J40	150	80%	$2,400	$9,600	$0	$1,800,000
J40	100	100%	$3,000	$12,000	$4,000	$1,900,000

Source: Pepco Schedule (DSS)-1 at 7.

The make-ready incentives for both utility-side and customer-side make-ready costs will be provided to customers as a rebate in the form of a reimbursement check. The calculated incentive level will be based on the customer's eligible costs.[56] The company will identify J40 communities in the same manner as described for its destination charging make-ready program.

Q. Will Pepco require program participants to continue supporting the operation of the charging site for a certain number of years?

A. Yes. Pepco indicates that it will require the customer to commit to supporting the operation of the charging site for five years. The company will also require that the sites have chargers that "work as intended, maintain cloud connected networking services, and report charging session and utilization data to Pepco."[57] At the end of the five-year period customers will have complete control over the stations.[58]

[56] Exhibit CL-2 (Pepco Response to OPC DR 8-22(h)).
[57] Exhibit CL-2 (Pepco Response to OPC DR 8-23).
[58] Exhibit CL-2 (Pepco Response to OPC DR 31-1(c)).

Q. How did Pepco determine the multifamily make-ready program incentive caps?

A. The company did not base its incentive caps on average costs in its service territory. Instead, Pepco relied upon an ICF literature review of EV charging costs specific to utility-side and customer-side costs associated with Level 2 chargers.[59]

Q. Will the company pro-rate the number of eligible ports based on the size of the multifamily property?

A. No. Pepco will not prorate or decrease the number of ports per site depending on the size of the multifamily property. Pepco indicates that, regardless of size, all properties will be eligible for incentives for up to 20 ports per site.[60]

Q. How do Pepco's proposed incentive levels compare to those offered by utilities in other jurisdictions?

A. Pepco's proposed incentive levels appear comparable based on a survey of similar make-ready programs in other jurisdictions. Table 7 below provides a comparison of make-ready programs for the multifamily sector that had a similar structure in terms of the charger type (Level 2) and incentive level (per port). The definitions for communities that are eligible for higher incentives due to income disparity, environmental justice, or other inequity

[59] Exhibit CL-2 (Pepco Response to OPC 8-22(a-b) and OPC 8-9).
[60] Exhibit CL-2 (Pepco Response to OPC 8-22(l)).

concerns differ across jurisdictions. For simplicity in the table, I label these as disadvantaged communities (DAC).

Table 7. Comparison of Utility Multifamily Make-Ready Program Incentives[61]

Utility	State	Charger Type	Equity Carve-Outs	Percent of Make-Ready Costs Covered	Utility-Side	Customer-Side
Pepco	MD	L2	Non-DAC	80%	Up to $2,400/port	Up to $9,600/port
			DAC	100%	up to $3,000/port	up to $12,000/port and additional $4K
Pacific Gas & Electric	CA	L2	Non-DAC	up to 100%	100%	up to $12,000/port
			DAC	100%	100%	up to $15,000/port
			New-Construction Non-DAC and DAC	up to 100%	100%	up to $3,500/port
Atlantic City Electric Company	NJ	Smart L2	Non-DAC	75%	up to $5,000/port	
			DAC	100%	up to $6,700/port	
Con Edison	NY	L2	Non-DAC	up to 50%	up to $5,629/port	
			DAC	up to 100%	up to $11,257/port	

Q. What are your conclusions and recommendations for the multifamily make-ready program?

A. There are unique market barriers to deployment of EVSE in the multifamily sector. For instance, parking locations are likely to be separated from

[61] Schedule DSS-1 at 7; Pacific Gas and Electric: *Pacific Gas and Electric: Decision Authorizing Company's Electric Vehicle Charge 2 Program*, Decision 22-12-054 (Cal. Pub. Util. Comm'n., Dec. 19, 2022); Atlantic City Electric Company*: In the Matter of the Petition for Approval of a Voluntary Program for Plug-In Vehicle Charging*, Docket No. EO18020190 (N.J. Bd. of Pub. Util., Feb, 17, 2021); Consolidated Edison (Con Edison): *Order Establishing Electric Vehicle Infrastructure Make-Ready Programs and Other Programs*, Case 18-E-0138 (New York Pub. Serv. Comm'n., July 16, 2020).

multifamily buildings, which may increase costs associated with running wiring to the charger. In addition, property managers often have limited information on EVSE and may not see the benefit of the investment when there are more pressing building improvements. In addition, bylaws regarding ownership of parking spaces and/or allowed modifications to common areas may need to be revised, creating more complexity. Given these market barriers, I support Pepco's proposal to provide make-ready incentives for both utility- and customer-side make-ready work. I also find Pepco's proposed incentive levels to be consistent with other utility make-ready programs.

I recommend that the Commission approve this program with one modification—that Pepco cap the available incentive to a percentage of the total parking spaces at the multifamily property (i.e., 10 or 20 percent). This would ensure a more equitable distribution of funds across the multifamily sector. Furthermore, multiple additional level 1 chargers can likely be deployed at sites once make-ready work for level 2 chargers has been accomplished. This gives access to overnight charging for more vehicles while limiting costs to ratepayers.

D. Pepco's private fleet charging program should be modified.

Q. Please summarize Pepco's proposal for a private fleet charging program.

A. Pepco's proposed private fleet charging program seeks to provide utility-side make-ready and customer-side make-ready and charger installation incentives to support the installation of Level 2 and DCFC charging infrastructure at approximately 50 fleet charging sites in J40 communities.[62]

Pepco proposes to provide incentives for up to 100 percent of the make-ready and charger installation costs, with specific caps for utility-side and customer-side make-ready and charger installation costs. To be eligible for an incentive, the private fleet must have at least five vehicles operating in or serving J40 communities in Pepco's Maryland service territory and no single customer may receive more than 20 percent of the program budget.[63] The proposed incentive levels are summarized in Table 8 below.

Table 8. Proposed Private Fleet Charging Program Incentives

	Sites	% of Make-Ready Costs	Incentive Cap		Total MRP Incentive Budget
			Utility-Side Make-Ready	Customer-Side Make-Ready and Installation	
J40 Fleet	50	100%	$15,000	$30,000	$2,250,000

Source: Schedule DSS)- at 8.

[62] Schedule DSS-1 at 8.
[63] *Id.*

The make-ready incentives for both utility-side and customer-side make-ready costs will be provided to customers as a rebate in the form of a reimbursement check. The calculated incentive level will be based on the customer's eligible costs.[64] The company will identify J40 communities in the same way described for its destination charging make-ready program.

Q. Will Pepco require program participants to continue supporting the operation of the charging site for a certain number of years?

A. Yes. Pepco will establish terms and conditions for the private fleet charging program that require continued operation of the resulting charging infrastructure for at least five years.[65] At the end of the five-year period, customers will have complete control over the stations.[66]

Q. How did Pepco determine the private fleet charging program incentive caps?

A. The company did not base its incentive caps on average costs in its service territory. Instead, Pepco relied upon an ICF literature review of EV charging costs specific to utility-side and customer-side costs associated with DCFC and Level 2 chargers.[67] In addition, Pepco indicates that it has not outlined a set incentive per Level 2 or DCFC charger and therefore cannot indicate

[64] Exhibit CL-2 (Pepco Response to OPC DR 8-24(i)).
[65] Exhibit CL-2 (Pepco Response to OPC DR 8-6(c)).
[66] Exhibit CL-2 (Pepco Response to OPC DR 31-1(c)).
[67] Exhibit CL-2 (Pepco Response to OPC DR 8-24(a)(f)(g) and OPC 8-9).

what portion of the $30,000 customer-side make-ready costs are intended to cover the costs of the charger and the charger installation.[68]

Q. Does Pepco have existing fleet programs?

A. Yes. The company currently offers three fleet programs: fleet assessments, make-ready incentives, and EVSE equipment. The programs were approved by the Commission on September 14, 2022,[69] and are expected to end in September 2025.[70] The total approved budget for the three fleet programs, including a continuation of its online fleet calculator, is $4.62 million.[71] At the end of June 2023, Pepco had $4.55 million in program budget remaining.[72]

Q. Please summarize Pepco's existing make-ready and EVSE incentives for fleets.

A. The company has Commission approval to provide 70 locations with make-ready incentives and EVSE equipment and installation incentives. The program sets aside 25 incentives to fleets that operate in census tract locations for historically disadvantaged communities.[73]

[68] Exhibit CL-2 (Pepco Response to OPC DR 8-24(c)).
[69] ML# 242312 (Case No. 9478).
[70] Exhibit CL-2 (Pepco Response to OPC DR 8-13(d)).
[71] *Fleet Subgroup Summary Report* at 9, ML# 241277 (Case No. 9478, June 20, 2022).
[72] *Potomac Electric Power Company and Delmarva Power & Light Company Semi-Annual EV Pilot Program Progress Report*, Appendix A, ML# 304387 (Case No. 9478, August 1, 2023).
[73] *Fleet Subgroup Summary Report* at 9, ML# 241277 (Case No. 9478, June 30, 2022).

Fleets that are not located in disadvantaged communities are eligible to receive make-ready incentives covering 90 percent of the line-side (i.e., utility-side of the meter) cost, up to $15,000. The EVSE incentive covers 50 percent of the costs per port, up to $5,000 per Level 2 port and $15,000 per DCFC port, with a site maximum of $30,000. Fleets operating in disadvantaged communities can receive incentives for 100 percent of the line-side make-ready costs and are eligible for EVSE incentives of 60 percent, up to $5,000 per Level 2 charging port and up to $15,000 per direct current fast charging port, for a maximum rebate of $30,000 per location.[74]

Q. How will the proposed private fleet charging program interact with the existing fleet programs?

A. Customers participating in the private fleet charging program are not eligible for infrastructure incentives through the existing Pepco fleet Programs.[75]

Q. Do the proposed private fleet charging program make-ready incentives align with those approved for its existing fleet program?

A. No, they do not. Pepco's existing make-ready incentives for fleets located in historically disadvantaged communities cover only the line-side make-ready costs, meaning costs on the utility-side of the meter.[76] In Pepco's proposed Private Fleet Charging program, the make-ready incentives for fleets

[74] *Id*. at 13.

[75] Schedule DSS-1 at 8.

[76] *Potomac Electric Power Company and Delmarva Power & Light Company Semi-Annual EV Pilot Program Progress Report* at 19, ML# 304387 (Case No. 9478, August 1, 2023).

operating in J40 communities covers *both* the utility-side and customer-side make-ready costs.

Q. Why is this problematic?

A. It will cause market confusion for the private sector seeking to support fleet electrification. It will also confuse potential program participants if there are multiple make-ready fleet programs targeted at disadvantaged and J40 communities, each with different components and incentive structures. In addition, Pepco did not provide any evidence to support that the existing utility-side-only make-ready incentives are not sufficient to support fleets in disadvantaged communities. Thus, there is no justification for why ratepayers should bear a higher cost to support make-ready infrastructure when it may not be needed to support investment by private fleets.

Q. What are your recommended improvements for the private fleet charging program?

A. I recommend that the Commission reject Pepco's proposal to provide customer-side make-ready incentives for private fleet charging. Given the fact that Pepco's current fleet programs began as recently as August of 2023, there is no data to support why expanding make-ready incentives to address customer-side equipment and costs is warranted and in the best interest of ratepayers.

I also recommend that the Commission reject Pepco's proposal to provide incentives for EV chargers and charger installations under this

program. As indicated above, Pepco's existing fleet program still has an ample budget to support fleet charging infrastructure. While I support increasing the existing utility-side make-ready budget to incentivize the electrification of fleets in J40 communities, ratepayer dollars should not be used to support customer EV chargers and installation.

Rather than creating a new fleet program, Pepco should request an increase to the budget for its existing fleet make-ready program as approved in Case No. 9478[77] equal to the costs of providing an additional 50 sites with utility-side make-ready incentives of 100 percent, up to $15,000 per site. Because the existing fleet program will be in place during the first year of the MRP, it is logical to consider extending the existing program rather than duplicating existing efforts and causing confusion by standing up a brand new program.

E. Pepco's EV make-ready planning and support program should be modified.

Q. Please summarize Pepco's proposed EV make-ready planning and support program.

A. Pepco's proposed EV make-ready planning and support program seeks to provide a pre-application technical assessment from internal Pepco teams for the siting of 35 EV Fleet conversions and 30 DCFC locations. Pepco states

[77] Letter Order dated Sept. 14, 2022, ML# 242312 (Case No. 9478).

that its engineering team will conduct these assessments to evaluate the grid impacts and needed grid infrastructure for a proposed site or sites. The engineering teams will then work with the customer to collectively identify the optimal siting solution, allowing for a smoother application and post application process. To be eligible, customers must own and operate public serving or publicly accessible (managed by a transit agency) fleets or private fleets of greater than five vehicles, or DCFC sites over 600 kW. Pepco proposes a budget of $1.5 million for this program.[78]

The company indicates that the DCFC assessment target was set at a level to meet a portion of the anticipated infrastructure deployment over the course of the program timeline.[79]

While EV make-ready planning and support program costs are associated with providing customer technical support and assessments, which clearly fall into the category of O&M expense, Pepco proposes to effectively capitalize these costs by proposing to defer them into the planning efficient electrification regulatory asset.[80]

Q. Does Pepco currently offer fleet assessments?

A. Yes. Pepco has Commission approval to provide up to 35 fleet assessments for fleet owners and operators, including but not limited to vehicle

[78] Schedule DSS-1 at 6.
[79] *Id.*
[80] Direct Testimony of Robert T. Leming ("Leming Direct") at 23, lines 3-8.

recommendations with financial and emissions impacts and EVSE recommendations based on battery size and available charging timelines. The budget is $25,000 per customer.[81] As noted above, at the end of June 2023, Pepco had $4.55 million in program budget remaining across its three fleet programs.[82]

Q. Does Pepco explain why it requires more funding for fleet assessments?

A. Not sufficiently. Pepco states that the target of providing 35 fleet assessments is complementary to its existing fleet advisory services.[83]

Q. What is your recommendation for the proposed EV make-ready planning and support program?

A. I recommend the Commission reject the fleet assessments included in Pepco's proposal. I do not support the inclusion of fleet assessments as part of this program because Pepco has an existing fleet assessment program with remaining funds that will continue until September 2025. However, I recommend that the Commission approve the company's proposal to provide 30 DCFC assessments over the MRP term, as this program is not duplicative of existing incentives.

[81] *Potomac Electric Power Company and Delmarva Power & Light Company Semi-Annual EV Pilot Program Progress Report* at 18–19*,* ML# 304387 (CN 9478, Aug. 1, 2023).
[82] *Id.*, Appendix A.
[83] Schedule (DSS)-1 at 6.

F. Improvements should be made to Pepco's proposed program reporting and evaluation process.

Q. Please summarize Pepco's proposed reporting and evaluation schedule for its electrifying transportation programs.

A. Pepco plans to track and report progress related to any approved electrifying transportation programs to the Commission on a semi-annual basis consistent with Case No. 9478.[84] Though not specified in the company's application, Pepco plans to conduct an evaluation of the program.[85] For the programs with incentive carve-outs for J40 communities—Destination Charging and Multifamily Charging Make-Ready—Pepco indicates it will measure progress towards goals by tracking metrics such as the number of sites, EV charging ports, and incentive dollars deployed in J40 locations in its semi-annual reports.[86]

Q. Do you find Pepco's proposed reporting structure sufficient?

No, I do not. While I appreciate the company's commitment to apply the reporting requirements for Case No. 9478 to the programs in its electrifying transportation portfolio and to conduct an evaluation, the structure of the new programs proposed in this MRP differ from those approved for Phase I EV pilot and should have different tracking metrics.

[84] Exhibit CL-2 (Pepco Response to OPC DR 8-1(e)).
[85] Exhibit CL-2 (Pepco Response to OPC DR 31-8).
[86] Exhibit CL-2 (Pepco Response to PGC DR 1-14).

Q. What improvements to the reporting and evaluation process do you recommend?

A. I recommend that the Commission require Pepco to continue the existing reporting requirements established in Case No. 9478 and to begin tracking and reporting the additional metrics below for each of the company's proposed make-ready programs as part of its semi-annual reports to the Commission:

- the number and percent of make-ready applications that matured into operating charging stations;
- the number and total incentives issued to charging sites for utility-side costs;
- the number and total incentives issued to charging sites for customer-side costs;
- the number of ports installed as a result of make-ready incentives;
- utility-side make-ready costs for each site, by charger type; and
- customer-side make-ready costs for each site, by charger type (where applicable based on the program design).

In addition, Pepco indicates that, as part of its make-ready programs, the company will require customers to have chargers that work as intended, maintain cloud-connected networking services, and report charging session

and utilization data to Pepco.[87] The Commission should require Pepco to include this data as part of its semi-annual reports for its existing EV programs. Finally, since the company's application does not make it clear, I recommend that the Commission require Pepco to conduct an evaluation of its electrifying transportation programs at the conclusion of the MRP term and submit that evaluation to the Commission.

G. Pepco's electrifying transportation proposal does not sufficiently encourage off-peak charging.

Q. Please summarize Pepco's existing programs that encourage off-peak charging.

A. Pepco currently offers four programs that encourage EV drivers to charge off-peak:[88]

1. The whole house time-of-use (TOU) rate provides customers a discounted "whole house" off-peak rate for both the vehicle and residence that incentivizes customers to charge off-peak. This is a permanent rate offering.
2. The plug-in vehicle (PIV) managed demand discounted L2 charger program provides an EV-only TOU rate that allows customers to charge their EVs at a reduced electric rate during off-peak hours. This rate has a planned sunset date of December 31, 2023, though any

[87] Exhibit CL-2 (Pepco Response to OPC DR 8-18).
[88] Exhibit CL-2 (Pepco Response to OPC DR 8-1(f)).

customers currently enrolled on the PIV rate will continue to be billed under the PIV rate.

3. The off-peak off-bill program is an incentive program based on how much electricity (kwh) a customer uses each quarter to charge their EV during off-peak hours. This program will end on December 31, 2023.

4. The SCM pilot provides customers with the option to plug in their vehicle(s) and have their charging managed through telematics to shift load patterns to off-peak times. This pilot will conclude on December 31, 2024.

Q. Is Pepco proposing any new off-peak rates or programs as part of its MRP?

A. No, it is not. Pepco is implementing the SCM pilot until December 2024 and may propose additional programs "based on learnings from this program, other industry, and learnings."[89]

Q. Is this sufficient?

A. No. A key role of the utility in its support of transportation electrification should be to support the development of rates and programs that incentivize off-peak charging to mitigate stress on the electric grid due to the proliferation of EVs. The only permanent rate to support off-peak EV

[89] Exhibit CL-2 (Pepco Response to OPC 8-1(d)).

charging is the company's Whole House TOU Rate. The company's EV-only TOU rate will expire at the end of this year.

Q. Why is it important for Pepco to offer an EV-only TOU rate?

A. Some customers may not be interested in having their entire home's electricity consumption tied to a TOU rate due to the inability to shift consumption to off-peak periods. However, these customers may still have the ability to modify the times when they charge their EVs. If Pepco only offers a whole-house TOU rate, it will lose out on influencing the charging behavior of this subset of customers.

Q. Would continuation of the SCM pilot alleviate your concerns?

A. No. While the initial results of the SCM program appear promising, not all customers will be open to a managed charging program where the utility controls their EV charger. Certain customers may prefer TOU rates, which allow for the customer to maintain control over when to charge their vehicles. It is important to provide a variety of rates and programs to ensure the largest number of EV owners possible are encouraged to shift charging times to off-peak periods.

Q. What additional EV load management programs should Pepco implement as part of its electrifying transportation programs?

A. I recommend that Pepco develop an EV-only TOU rate. If, through the Phase I evaluation, Pepco's existing PIV managed demand program is found to be effective, that rate could continue without any incentives to customers

for chargers. Any future EV-only TOU rate should be offered to customers with existing qualifying EV chargers and use on-board vehicle telematics to reduce the overall costs of the rate offering.

I also recommend that Pepco develop an off-peak charging program specific to the multifamily sector. A recent study of multifamily charging in Ohio and New York suggests that EV drivers residing at multifamily buildings tend to charge in the early evening when they return from work.[90] As more multifamily properties deploy EV charging infrastructure, it will become increasingly important to deploy programs that encourage off-peak charging at these locations.

There are several examples of existing utility multifamily off-peak charging programs from which Pepco could model a new program. For example, Jersey Central Power & Light allows multifamily chargers to participate in the off-peak rate credit program.[91] In addition, several California utilities offer TOU rates for multifamily chargers. For example, Southern California Edison (SCE) offers residences—including multifamily—the option of being on a time-varying tariff using a single meter for all the home's electricity usage including EV charging. SCE also

[90] Nicole Lepre, *EV Charging at Multi-Family Dwellings: Drivers, Barriers, and Recommendations*, Atlas Public Policy, at 11–12 (2021), https://atlaspolicy.com/wp-content/uploads/2021/01/EV-Charging-at-Multi-Family-Dwellings.pdf.

[91] *See* Jersey Central Power & Light, *EV Driven FAQs*: https://www.firstenergycorp.com/help/electric-vehicles/nj-ev/new-jersey-ev/ev-faqs.html.

tested a model where site hosts at multifamily properties are charged a time-varying rate for usage of the chargers.[92] Pacific Gas & Electric and SCE also offer a business EV TOU rate for workplaces and multifamily properties.[93]

III. Transportation Electrification BCA comports to MD EV-BCA Framework.

A. Overview of the MD EV-BCA Framework.

Q. Why did the company file an EV-BCA in this case?

A. In Order No. 88997, the Commission required utilities to include a detailed cost-benefit assessment "to substantiate, empirically, all cost expenditures related to EV charging for purposes of cost recovery in any future rate case."[94] The Commission noted the need to balance the goals of the utility EV programs against other considerations, such as "the appropriate size of an EV charging program, the level of utility involvement, the ratepayer impacts, the cost-effectiveness of the program, the overall benefits to all Maryland ratepayers, and the potential impediments to competition by market participants."[95]

[92] Julia Hildermeier and Jessica Shipley, *Tariff Design Can Optimize Grid Resources and Save Drivers Money—Selected Examples and Lessons Learned from the U.S. and Europe*, Regulatory Assistance Project, at 4–6 (2020), https://www.raponline.org/wp-content/uploads/2023/09/RAP-hildermeier-shipley-EVS33-paper-2020-June.pdf.

[93] *See* Pacific Gas and Electric Company, *Business EV Rate Plans*, https://www.pge.com/en_US/small-medium-business/energy-alternatives/clean-vehicles/ev-charge-network/electric-vehicle-rate-plans.page.

[94] Order No. 88997 at 44, n.170.

[95] *Id*. at 37.

Pepco is providing a BCA demonstrating that its Phase I EV programs as approved in Case No. 9478 are cost-effective in accordance with this order. Pepco also provides a BCA for its proposed electrifying transportation programs.

Q. Please summarize the EV Work Group process in the development of the MD EV-BCA.

A. The Commission tasked the EV Work Group with developing a consensus BCA proposal for consideration by December 1, 2021, taking into account the National Standards Practice Manual (NSPM) for DERs and the existing BCA framework used to review the EmPOWER Maryland programs.[96]

The EV Work Group met 11 times during 2021 to review the NSPM for DERs, Maryland's policy goals, EV-BCAs used in other jurisdictions, and current BCA practices in Maryland.[97] Based on these discussions, the consultant for the Maryland Joint Utilities[98] developed a whitepaper detailing a jurisdiction-specific EV-BCA. The EV Work Group members

[96] Order No. 89678 at 113–14, *Application of Baltimore Gas and Electric Company for an Electric and Gas Multi-Year Plan* (CN 9645, Dec. 16, 2020). The National Standards Practice Manual is a manual on cost-effectiveness for distributed energy resources developed by the National Energy Screening Project. *Id.* at 109.

[97] Summary Report on a Statewide Electric Vehicle Benefit Cost Analysis Methodology, Prepared for the Commission by PC44 Electric Vehicle Work Group, at 2–3, *In the Matter of the Petition of the Electric Vehicle Work Group for Implementation of a Statewide Electric Vehicle Portfolio*, ML# 238013 (CN 9478, Dec. 1, 2021).

[98] The "Maryland Joint Utilities" includes Pepco, Baltimore Gas and Electric Company (BGE), Delmarva Power & Light Company (DPL), The Potomac Edison Company (PE), and Southern Maryland Electric Cooperative (SMECO).

reviewed and provided comments on several iterations of the whitepaper, resulting in a final consensus version.

Q. Did you participate in the EV Work Group?

A. Yes. I participated in the EV Work Group on behalf of OPC. This included attending meetings, reviewing whitepaper drafts, and participating in the drafting of written feedback and comments that were submitted on behalf of OPC.

Q. Do you support the resulting Maryland EV-BCA Framework?

A. Yes. I support the Maryland EV-BCA Framework as a consensus work product of the EV Work Group.

Q. Please summarize the resulting Maryland EV-BCA Framework.

A. The Maryland EV-BCA Framework includes a primary cost-effectiveness test—the MD EV-JST—and several secondary tests and assessments, all of which I summarize below.

1. **MD EV-JST—the Primary Test**: Assesses the cost-effectiveness of utility EV programs and accounts for all applicable utility system impacts and non-utility system impacts related to Maryland's policy goals, including host customer (i.e., program participant) impacts and societal impacts.
2. **Market-Wide Test (MWT)**: Assesses the impact of all EVs on society as a whole. This test uses the same methodology as the MD

EV-JST but seeks to measure whether society is better off due to widespread transportation electrification, not just electrification directly induced by utility EV programs.

3. **Aggregate Non-Participating-Ratepayer Impact (ANRI)-All**: Quantifies the positive and negative impacts of utility EV programs to determine the net increase or decrease in costs to non-participating ratepayers. The ANRI-All case includes impacts that can be monetized on a utility bill (utility system impacts) and externalities that are currently not embedded in rates such as avoided environmental harm and improved public health.
4. **ANRI-Bills-Only:** Uses the same methodology as ANRI-All but only includes impacts that can be monetized on a utility bill.

The Maryland EV-BCA Framework also includes a list of impact factors within the categories of Utility (and Power Sector), Participant (Host Customer), and Societal.

Q. Why is it important that a utility conduct a BCA in accordance with the Maryland EV-BCA Framework?

A. The EV-BCA Framework— the MD-JST cost-effectiveness test in particular— aims to provide regulators and stakeholders with more transparency on the costs and benefits resulting from utility EV programs. The framework provides the information needed to determine if a utility

investment will result in net benefits to customers and gives valuable insight into the design of proposed future EV programs. The framework is designed to avoid the potential for inflated or deflated cost-effectiveness results by ensuring all relevant costs and benefits are included in a BCA.

B. Pepco's EV BCA adheres to the MD EV-JST Framework.

Q. Please summarize the approach taken by Mr. Hledik to conduct a BCA for Pepco's EV programs.

A. Mr. Hledik applied the MD EV-BCA Framework to the company's existing EV programs approved in Case No. 9478 and separately, the proposed electrifying transportation programs proposed in the MRP.

Q. What were the results of the BCA for Pepco's existing EV programs?

A. I summarize the results of Mr. Hledik's BCA in Table 9 below. Mr. Hledik groups Pepco's existing EV programs into two categories: (1) charger programs that encourage the deployment of EV charging infrastructure, and (2) load-shifting programs that encourage off-peak EV charging.[99]

[99] Hledik Direct at 14, lines 5-9.

Table 9. MD EV-BCA Results for Pepco's Existing Programs

Existing Program	MD EV-JST BCR	ANRI (All) Rate Impact ($M)	ANRI (Bill Only) Rate Impact ($M)
Charger-Programs			
Public Charging Network	1.57	-$7.3	$5.3
Workplace Charging	1.54	-$1.3	-$0.2
Multifamily Property Rebate	1.23	-$0.4	$0.7
Fleet Charging	1.13	-$31.1	-$15.3
Residential L2 Charger Rebate	0	$0.9	$0.9
Residential Charger Annual Home Incentive	0	$0.1	$0.1
Load Shifting Programs			
Whole House TOU	0.86	$0.1	$0.2
Smart Charge Management	0.81	$0.5	$0.5
Off-Peak/Off-Bill	0.61	$0.1	$0.1
PIV Managed Charging	0.04	$0.6	$0.6
Portfolio	**1.23**	**-$37.8**	**-$7.2**

Source: Errata to Hledik Direct Testimony at 17–23.

For the MD EV-JST, a result over 1.0 demonstrates the program or portfolio is cost-effective. Table 9 shows that according to the MD EV-JST, all charger programs except the two residential rebate programs are cost-effective. This is because Mr. Hledik modeled those programs as cost-only because "their benefits are indirect, difficult to quantify with a reasonable degree of certainty, and/or they primarily provide support to the other programs."[100] The BCA results also show that none of the load-shifting programs were cost-effective. I am not concerned by these results because,

[100] Hledik Direct at 15, line 5 through p. 16, line 1.

as Mr. Hledik notes, the combination of programmatic fixed costs and low participation result in a low BCR. Increasing participation in these programs will improve their overall cost-effectiveness.[101]

The ANRI assessments show the aggregate net ratepayer costs from Pepco's programs. A positive result from an ANRI-Bills-Only assessment indicates ratepayer costs will increase from Pepco's programs, while a negative result indicates a cost reduction. The ANRI-All assessment adds external impacts (i.e., emissions) that are not currently monetized in rates. For the ANRI-Bills-Only—which accounts for only the monetized impacts on customer bills (i.e., no emissions or externalities)—only the workplace charging and fleet charging programs result in lower costs to ratepayers.

Q. What were the results of the BCA for Pepco's proposed electrifying transportation programs?

A. I summarize the results of Mr. Hledik's BCA for Pepco's proposed programs in Table 10 below.

[101] *Id.*, at 18, line 7 through p. 19, line 6.

Table 10. MD EV-BCA Results for Pepco's Proposed EV Programs

Proposed Program	MD EV-JST BCR	ANRI (All) Rate Impact ($M)	ANRI (Bill Only) Rate Impact ($M)
Destination Charging Make-Ready	1.99	-$28.7	-$0.8
Public Transit Bus Make-Ready	1.05	-$77.9	-$27.1
Multifamily Make-Ready	1.95	-$6.6	$0.4
Private Fleet Charging	1.11	-$19.9	-$7.7
Portfolio	**1.31**	**-$133.1**	**-$35.2**

Source: Errata to Hledik Direct Testimony, at 27–29.

The results of the BCA analysis show that all of Pepco's proposed electrifying transportation programs are cost-effective with a BCR over 1.0 and show a reduction in rates according to both the ANRI-All and ANRI-Bills-Only results.

Q. Does Mr. Hledik's BCA methodology adhere to the MD EV-BCA Framework?

A. Yes. After reviewing Mr. Hledik's testimony and workpapers, I conclude that his BCA complies with the MD EV-BCA framework.

Q. Did you previously raise concerns for how the Maryland utilities were applying the MD EV-BCA Framework.

A. Yes. I noted critical flaws in the BCAs filed as part of Delmarva Power & Light Company's application for an electric MRP (Case No. 9681), the Potomac Edison Company's application for adjustments to its retail electric rates (Case No. 9695), and BGE's application for a second electric and gas MRP (Case No. 9692).

Q. Please summarize the key issue you identified in those cases.

A. My main concern with the BCAs filed in those cases concerned the exclusion of costs associated with the Level 2 smart chargers subsidized through charger rebate programs. The exclusion of these costs inflated the cost-effectiveness results in those BCAs.

Q. Do you find the same flaws in Pepco's BCA?

A. No, I do not. Mr. Hledik accurately accounts for the costs of Level 2 chargers in both the residential L2 charger rebate program and the residential charger annual home incentive program. Within the BCA, Mr. Hledik includes the costs of the chargers but excludes any benefits, stating that such benefits are either indirect, difficult to quantify with a reasonable degree of certainty, and/or they primarily provide support to the other programs.[102] This is appropriate because incentivizing a residential charger alone creates costs and not benefits. The electric system benefit is created only when a customer enrolls their EV charger in a TOU rate or off-peak charging program.

Q. What is your recommendation regarding the BCA filed by Mr. Hledik.

A. I recommend the Commission acknowledge the BCA analysis as compliant with the Maryland EV-BCA Framework.

[102] *Id.* at 15, line 5 through p. 16, line 1.

IV. Pepco's climate solutions programs should not be allowed regulatory asset treatment.

A. Overview of climate solutions programs cost recovery proposal.

Q. Please summarize what Pepco includes in its climate solutions programs.

A. The company's proposed climate solutions programs are comprised of four program portfolios: (1) electrifying transportation, (2) decarbonizing buildings (3) planning efficient electrification, and (4) activating the local energy ecosystem. The total cost for these programs over the MRP period is $151 million, net of potential expected federal funding from the *Inflation Reduction Act* (IRA).[103]

Q. Describe Pepco's cost recovery proposal for its climate solutions programs.

A. Pepco requests approval to defer the costs of the climate solutions programs into regulatory assets. The regulatory assets would be included in rate base and recovered in base rates over a period of five to 13 years, depending on the program, and earn a return at Pepco's authorized rate of return.[104] Effectively, this means 100 percent of costs associated with the climate solutions programs will be treated as capital investments.

[103] Leming Direct at 22, line 2-4.
[104] Leming Direct at 22, lines 2-10; Exhibit CL-2 (Pepco response to OPC 8-25(a), MD 9702 OPC DR 8-25 Attachment A Electronic Only).

The company includes three ratemaking adjustments (RMA) in its MRP to reflect the creation and inclusion of the regulatory assets:

- RMA 9A for electrifying transportation program portfolio costs, with a proposed amortization period of five years;
- RMA 9B for the planning efficient electrification and activating the local energy ecosystem program costs, with a proposed amortization period of 12 years; and
- RMA 9C for the decarbonizing buildings program portfolio costs, with a proposed amortization period of 13 years.[105]

Q. What is Pepco's justification for its proposal to defer the costs of its climate solutions programs into regulatory assets?

A. The company states that it is proposing to defer climate solutions programs costs into regulatory assets due to their associated level of spending and the long-term benefits the programs will provide.[106] Pepco likens the use of regulatory assets to distribute costs to the depreciation of tangible capital costs over the estimated useful life of the asset. The company states that regulatory asset treatment of intangible assets seeks to accomplish the same end by distributing costs of the programs over their useful lives to

[105] Leming Direct Testimony at 22, line 16 through p. 23, line 14.
[106] Leming Direct Testimony at 22, lines 4-8.

customers.[107] Pepco also states that regulatory asset treatment will prevent front-loading of program costs and short-term increases in customer bills.[108]

For the electrifying transportation portfolio of programs, the company states that its proposed regulatory asset treatment—using an amortization period of five years—aligns with the precedent established for existing EV programs in Case No. 9655.[109]

Q. Will Pepco own all the assets under its proposed electrifying transportation programs?

A. No. While the company would own equipment installed on the utility-side of the meter, it does not propose to own the equipment associated with customer-side make-ready infrastructure.[110]

Q. Will Pepco own the assets under its planning efficient electrification and activating the local energy ecosystem portfolio of programs?

A. Pepco will not own any assets under the planning efficient electrification programs. These programs consist of customer-side make-ready upgrades and advisory assessments and support for customers' electrification projects.

Q. Will Pepco own all the assets included in its decarbonizing buildings portfolio of programs?

A. No. This program provides incentives to customers to encourage the electrification of equipment in residential buildings. The equipment

[107] Leming Direct at 24, lines 1-6.
[108] Leming Direct at 24, lines 8-11.
[109] Leming Direct at 22, lines 22-23 and p.23, lines 1-2.
[110] Exhibit CL-2 (Pepco Response to OPC DR 8-5(a)).

incentivized by this program, including heat pump water heaters and heat pump space heating and cooling equipment, would be owned and operated by the customer. The design of this program is rebate-based and mirrors that of the EmPOWER programs, where customers receive financial incentives to offset the higher upfront cost of more energy-efficient equipment.

B. Capitalization of customer incentives is contrary to standard ratemaking principles.

Q. Is Pepco proposing to treat the non-capital costs under its climate solutions programs as if they are capital expenditures?

A. Yes. As summarized above, Pepco will not own or maintain the assets installed on the customer-side of the meter. Yet under regulatory asset treatment, these costs will be treated as if they are capital expenditures.

Q. How are non-capital expenditures normally recovered?

A. Non-capital costs related to customer rebates and financial incentives, program administration, and advisory services are traditionally expensed at the time they are incurred because they are not capital investments on the part of the utility. These costs are typically considered utility O&M expenditures.

There is a long-accepted practice of expensing costs associated with utility rebate programs in the year they occur. This is typically seen with

utility energy efficiency programs.[111] The energy efficiency equipment installed because of the rebate will continue to provide benefits over its lifetime. However, in the case of utility energy efficiency rebates, these costs are not capitalized but are instead typically expensed and funded through a monthly system benefits charge on customer bills.[112]

This practice was also recently adopted in Maryland, where the Commission's decision in Order No. 90306 ended the amortization cost-recovery approach for the EmPOWER Maryland programs. In this order, the Commission determined that the continued regulatory asset treatment of EmPOWER costs is not in the public interest and found it necessary to transition to full annual expensing of EmPOWER costs to avoid continuing to increase the unamortized balance.[113]

[111] *See, e.g.,* Narragansett Electric Co. d/b/a Rhode Island Energy, *2023 Energy Efficiency Plan* at 36, Docket No. 22-33-EE (Rhode Island Pub. Util. Comm'n, Sept. 30, 2022), https://ripuc.ri.gov/Docket-22-33-EE; *Order on 2022-2024 Three Year Energy Efficiency Plans* at 14 (Mass. Dept. Pub. Util., Jan. 31, 2022), https://www.mass.gov/doc/2022-2024-three-year-energy-efficiency-plans-order/download; *Duke Energy Progress, LLC's Application for Approval of Demand-Side Management and Energy Efficiency Cost Recovery Rider*, Docket No. 2019-89-EE-2, Sub 1206, (S. Carolina Pub. Serv. Comm'n, June 11, 2019), https://dms.psc.sc.gov/Attachments/Matter/b188d468-3375-475c-be34-e9dd349f8393.

[112] Nineteen states are listed as using tariffs or riders to fund energy efficiency programs, see: https://database.aceee.org/state/customer-energy-efficiency-programs.

[113] Order No. 90306 ¶¶ 24, 25, ML# 241928, (CN 9648, Aug. 16, 2022).

Q. Do you agree with the company's claim that regulatory asset treatment will align spending with the long-term benefits provided by these proposed programs?

A. No, I do not. As indicated above, apart from utility-side make-ready work, the proposed climate solutions programs primarily comprise O&M expenditures in the form of advisory services and monetary incentives provided to customers. If Pepco's logic was applied to the other non-capital expenses in its MRP, all O&M expenditures would be amortized and earn a return. Not only does this contravene well-established ratemaking principles to ensure reasonable rates, it also conflicts with how Pepco proposes to recover the costs of its O&M expenditures during the MRP.

The fact that a program results in the creation of benefits over multiple years does not alone justify its classification as a capital asset. Using the example of energy efficiency programs above, the installation of more efficient equipment resulting from utility rebates provides customer benefits over multiple years, yet those costs are typically expensed in the year they occur instead of being capitalized.

Q. Do you oppose regulatory asset treatment of all non-capital expenditures?

A. No, I do not. Non-recurring expenses and those outside the control of the utility may be appropriate to classify as a regulatory asset. This aligns with the Commission's policy determination regarding the recovery of

COVID-19related incremental costs set forth in Order No. 89542.[114] However, this treatment should be reserved for extraordinary costs that are truly beyond the utility's control. The fact that the company has control of the programs within in its proposed climate solutions portfolio and has planned a budget accordingly further shows why it is inappropriate to treat these expenditures as regulatory assets.

C. Regulatory asset treatment increases customer costs.

Q. Please explain why amortizing costs as part of a regulatory asset increases costs to customers.

A. While it is true that amortization of the climate solutions programs minimizes the upfront rate increase, customers will pay more over the amortization period than they otherwise would if non-utility-side program costs were expensed. This is because, in addition to the company being eligible to earn a return on the amortized costs, those costs are subject to the cost of debt, taxes, and other charges necessary for including costs in rate base.

Q. Did you calculate the increased costs to customers from regulatory asset treatment?

A. Yes. I calculated this cost for the electrifying transportation programs and the decarbonizing buildings programs.

[114] Case No. 9639, Apr. 9, 2020.

For the electrifying transportation programs, regulatory asset treatment of non-capital costs[115] would result in an $7.3 million increase in customer costs over the amortization period. This represents a 19 percent increase in costs to customers due to the additional costs associated with including these programs in rate base. While customers experience increased costs over this time period, regulatory asset treatment allows Pepco to earn a return of $5.1 million on non-capital assets it does not even own or operate.

For the decarbonizing buildings programs, the regulatory asset treatment would result in a $45.8 million increase to customers over the amortization period, of which $32.2 million is the return Pepco would earn on the equipment owned and operated by customers and not the company. This represents a 50 percent increase in cost to ratepayers of that same time period.

When combining these programs, Pepco is slated to earn a return of $37.3 million. The company would not earn this return if it expensed non-capital costs for these programs in the year they occur. This begs the question of whether Pepco's proposal for regulatory asset is to protect customers or to increase utility revenues.

[115] For this analysis, "non-capital costs" are defined as the total electrifying transportation costs net of utility-side make-ready incentive costs based on the breakout of customer-side and utility-side incentives detailed in the attachment provided with OPC DR 10-8. Because Pepco will own utility-side make-ready infrastructure, these are considered capital assets on which Pepco may earn a return.

Q. If a regulatory asset is not used, how can Pepco reduce short-term rate impacts to customers?

A. First, if the company is concerned about short-term ratepayer impacts, it should reduce the overall program budgets. Second, the deployment of programs can be spaced out over time in a manner that limits the costs to be recovered by customers in any given year.

Q. If the Commission were to approve Pepco's proposed climate solutions programs, what is your recommendation for the treatment of non-capital climate solutions program costs?

A. I recommend that the Commission reject Pepco's proposal to defer costs for its climate solutions programs into regulatory assets, except for costs related to utility-side make-ready investments as included in the proposed electrifying transportation programs. As shown above, treating all costs of the climate solutions programs as a regulatory asset will cost customers more in the long term. The company will earn a return for financing equipment it does not own and for which it takes on no investment risk. Further, the return will cover operational expenses such as program administration and technical services. Since Pepco is proposing its climate solutions programs as part of its MRP, non-capital program costs should be included in the company's MRP O&M budget and recovered in the same manner as other expenses.

Q. Does this conclude your direct testimony at this time?

A. Yes, it does.

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PROFESSIONAL EXPERIENCE

Synapse Energy Economics, Inc., Cambridge, MA. *Principal Associate*, September 2022 – Present, *Senior Associate,* November 2019 – September 2022.

Provides consulting and researching services on a wide range of issues related to the electric industry including performance-based regulation, benefit-cost assessment, rate and bill impacts, and assessment of distributed energy resource policies and programs. Develops expert witness testimony in public utility commission proceedings.

National Grid, Waltham, MA. *Growth Management Lead*, *New England,* May 2019 – November 2019, *Lead Analyst for Rhode Island Policy and Evaluation,* June 2013 – April 2019.

- Portfolio management of product verticals including energy efficiency, demand response, solar, storage, distributed gas resources, and electric transportation, to optimize growth and customer offerings.
- Strategy lead for the Performance Incentive Mechanisms (PIMs) working group.
- Worked with internal and external stakeholders and led the development of National Grid's Annual and Three-Year Energy Efficiency Plans and System Reliability Procurement Plans for the state of Rhode Island.
- Represented energy efficiency and demand response within the company at various Rhode Island grid modernization proceedings.
- Led the Rhode Island Energy Efficiency Collaborative; a group focused on reaching consensuses regarding energy efficiency plans and policy issues for demand-side resources in Rhode Island.
- Managed evaluations of National Grid's residential energy efficiency programs in Rhode Island, and benefit-cost models to screen energy efficiency measures.

Citizens for Pennsylvania's Future, Philadelphia, PA. *Senior Energy Policy Analyst*, 2005–2013.

- Played a vital role in several legislative victories in Pennsylvania, including passage of energy conservation legislation that requires utilities to reduce overall and peak demand for electricity (2009); passage of the $650 million Alternative Energy Investment Act (2008); and important amendments to the Alternative Energy Portfolio Standards law vital to the development of solar energy in Pennsylvania (2007).
- Performed market research and industry investigation on emerging energy resources including wind, solar, energy efficiency and demand response.
- Planned, facilitated and participated in wind energy advocates training meetings, annual partners retreat with members of wind and solar companies, and the PennFuture annual clean energy conference.

Northeast Energy Efficiency Partnerships, Inc., Lexington, MA. *Research and Policy Analyst,* 2004–2005.

- Drafted comments and testimony on various state regulatory and legislative actions pertaining to energy efficiency.
- Tracked energy efficiency initiatives set forth in various state climate change action plans, and federal and state energy regulatory developments and requirements.
- Participated in Regional Greenhouse Gas Initiative (RGGI) stakeholder meetings.
- Analyzed cost-effectiveness of various initiatives within the organization.

EnviroBusiness, Inc., Cambridge, MA. *Environmental Scientist,* July 2000 – May 2001

- Conducted pre-acquisition assessments/due diligence assignments for properties throughout New England. Environmental assessments included an analysis of historic properties, wetlands, endangered species habitat, floodplains, and other areas of environmental concern and the possible impacts of cellular installations on these sensitive areas.

EDUCATION

Tufts University, Medford, MA
Master of Arts; Environmental Policy and Planning, 2004.

Colgate University, Hamilton, NY
Bachelor of Arts; Environmental Geography, 2000, *cum laude.*

PUBLICATIONS

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Resume updated August 2023

Potomac Electric Power Company's Application for Adjustments to its Retail Rates for the Distribution of Electric Energy

Case No. 9702

Data Responses Referenced in the Direct Testimony of Courtney Lane

Pepco Responses to OPC

Set 8

OPC 8-1
OPC 8-5
OPC 8-6
OPC 8-9
OPC 8-13
OPC 8-17
OPC 8-18
OPC 8-20
OPC 8-21
OPC 8-22
OPC 8-23
OPC 8-24
OPC 8-25 (Attachment A Electronic Only)

Set 10

OPC 10-8 (Attachment Electronic Only, "Incentive Cost Estimates" tab)

Set 31

OPC 31-1
OPC 31-8

Pepco Responses to Prince George's County

PCG 1-14.

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO OPC DATA REQUEST NO. 8

QUESTION NO. 1
Refer generally to Pepco's electrifying transportation programs.

(a) Please explain why Pepco is proposing transportation electrification programs outside of Case No. 9478.

(b) Please explain why Pepco did not wait until the conclusion of its Phase I EV programs before proposing additional transportation electrification programs?

(c) Does Pepco consider the transportation electrification programs contained in its proposed MYP to be the Company's Phase II EV Programs? If not, does the Company plan to file a Phase II EV Program proposal during the years 2024-2027?

(d) Please explain why Pepco is not proposing any incentives or rate proposals to encourage off-peak EV charging.

(e) Please describe how Pepco plans to track and report its progress related to the proposed transportation electrification programs. For example, will Pepco continue reporting semi-annual reports as it does for its Phase I EV programs?

(f) Does Pepco currently provide programs to encourage EV drivers to charge off peak? (If yes, please provide a summary of those programs.)

(g) If the answer to OPC DR 8-1(f) is yes, please provide the current sunset date for each off-peak charging rate and/or program.

(h) What percentage of EV drivers in Pepco's service territory are enrolled in a time-of-use EV rate or an off-peak charging program?

RESPONSE:

(a) Please refer to lines 9-17 on page 17 of Company Witness Schatz's Direct Testimony.

(b) In order to minimize the lack of availability of customer programs, the Company has included the offerings, which if approved, would launch in conjunction with the Commission's Order in this proceeding.

(c) The Company is not implementing programs in "phases." The Company's proposed transportation electrification programs as noted in the "Deployment Timeline" of Schedule 1, if approved, would launch within six month of approval (for any new programs) and implement the programs through the period of the Company MYP period.

(d) The Company is implementing a Commission approved Smart Charge Management pilot, which enables managed off-peak charging and is scheduled to complete in December 2024. The Company may propose additional programs based on learnings from this program other industry and learnings.

(e) Pepco will track and report progress related to approved programs to the Commission on a semi-annual basis consistent with Case No. 9478.

(f) See below for a summary of programs:

a. Whole House Time of Use (TOU) Rate – provides customers a discounted "whole house" off-peak rate (R-PIV) for both the vehicle and residence that incentivizes customers to charge off-peak. This rate is a permanent rate offering.
b. PIV Managed Demand Discounted L2 Charger Program - special electric PIV only TOU rate that allows customers to charge their EV at a reduced electric rate during off-peak hours. Planned sunset December 31, 2023. Customers currently enrolled on PIV will continue to be billed under the PIV rate.
c. Off-Peak Off-Bill Program - incentive based program on how much electricity (kwh) customer uses each quarter to charge their EV during off-peak hours. Provides an incentive on a quarterly basis of $0.03 per kwh for net kwh charged off-peak. Planned program sunset December 31, 2023.
d. The Smart Charge Management pilot (SCM) provides customers with the option to plug in their vehicle(s) and have their charging managed through telematics to shift load patterns to off peak times. Concludes December 31, 2024.

(g) See response to OPC DR 8-1 F.

(h) This analysis has not been completed. Total EV driver population cannot be determined at this time.

SPONSOR: Pearl Donohoo-Vallett and Peter R. Blazunas

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO OPC DATA REQUEST NO. 8

QUESTION NO. 5
Refer to the proposal for "make-ready" work described on page 6 of the direct testimony of witness Schatz, which states "Make-ready infrastructure refers to the equipment and materials required to upgrade service in front of the meter (FTM), or on the utility side, and behind the meter (BTM), or on the customer side, to support EV charging."

(a) Does Pepco plan to own the equipment on the customer-side of the meter? (Please explain why or why not?)

(b) Will Pepco add the BTM components of the make-ready work to its rate base? (Please explain.)

(c) Which components of the make-ready program costs does Pepco define as capital costs.

(d) Will Pepco provide customers and/or site hosts with a rebate for the BTM make-ready work? (Please explain.)

(e) Will customers and/or site hosts be allowed to choose their own electrician or vendor to perform the BTM (customer-side) make-ready work? (If yes, please explain how the financial incentives will flow to the customer and/or site host. If not, please explain why not.)

(f) Is Pepco aware of private firms that provide customer-side of the meter make-ready work? (If yes, please provide a list of those firms.)

RESPONSE:

(a) No, the Company does not propose to own the equipment on the customer side of the meter. Under the make-ready model, the utility focuses on incentives for infrastructure and equipment investments to prepare a site for electric vehicle charging. Behind-the-meter infrastructure, including electric panels and conduit upgrades, are part of the customer's electric system.

(b) There will not be any capitalized or capitalizable assets such as equipment or materials associated with BTM make-ready work. Any such assets would be customer-owned, and therefore not capitalizable by Pepco. However, under the proposed make-ready incentive programs, the customer may be eligible to receive an incentive that covers a portion or all of the eligible make-ready costs, and Pepco has proposed that the cost of these incentives be deferred into a regulatory asset, which would be included in its rate base. Please see page 22, line 1 through page 23 line 16 of the Direct Testimony of Company Witness Leming for further discussion of the proposed treatment of these costs.

(c) The Company does not define any make-ready program costs as capital.

(d) Yes, see Schedule (DSS)-1 for details of each proposed programs regarding eligibility and the application process, including receipt of rebate.

(e) Yes, participants may to choose their own electrician, contractor, or other vendor licensed to perform the customer-side make-ready work. Pepco will establish a process through which the eligible applicant (i.e., customer or site host) can assign the incentive to the electrician/vendor, allowing the electrician/vendor to receive the incentive check from Pepco.

(f) Yes, Pepco is aware of private companies capable of conducting customer-side make-ready work. The work can be performed by a licensed electrician.

SPONSOR: Pearl Donohoo-Vallett and Robert T. Leming

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO OPC DATA REQUEST NO. 8

QUESTION NO. 6
Refer to the Private Fleet Charging program on page 6 of the direct testimony of witness Schatz.

(a) Please confirm Pepco will only offer this program to private vehicles operating in or serving J40 communities.

(b) How will Pepco determine whether the private fleet is operating in or serving J40 communities?

(c) How will Pepco track that participating private fleets continue to operate and serve J40 communities?

(d) Is there criteria for how much of a private fleet's operations or service occurs in a J40 community? (If yes, please explain that criteria. If not, please explain why not.)

(e) Will the private fleet program participant be required to commit to continue operating and serving J40 communities for the life of the equipment? (If yes, please provide a description of the agreement. If not, please explain why not.)

(f) Does Pepco plan to track the air emissions and health benefits to J40 communities resulting from the Private Fleet Charging program? (Please explain why or why not.)

RESPONSE:

(a) Yes, only private fleets with at least five vehicles operating in or serving J40 communities are eligible to participate in the Private Fleet Charging program. See also Private Fleet Charging program details in Schedule (DDS)-1.

(b) The application Pepco establishes for the Private Fleet Charging program will require information from the fleet about where the charging infrastructure will be located as well as how and where the EVs will be used. Pepco will leverage tools such as the U.S. Department of Energy's (DOE) Energy Justice Mapping Tool (https://energyjustice.egs.anl.gov/) and MDE's Environmental Justice Screening Tool (https://mde.maryland.gov/Environmental_Justice/Pages/EJ-Screening-Tool.aspx) to confirm eligibility, as well as direct follow-up with the fleet as needed.

(c) Pepco will establish terms and conditions for the Private Fleet Charging program that require continued operation of the resulting charging infrastructure for at least five years. Pepco also anticipates ongoing engagement with program participants, which will enable information collection about how and where the fleet's electric vehicles are operating.

(d) Pepco has not established criteria for how much a private fleet's operations or service need to occur in a J40 community but will request information from program participants via the application and ongoing engagement stages, as noted in response to OPC DR 8-6(b).

(e) See response to OPC DR 8-6 c.

(f) Pepco does not currently track air emissions and health benefits as per its semi-annual reporting requirements in Case No. 9478.

SPONSOR: Pearl Donohoo-Vallett

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO OPC DATA REQUEST NO. 8

QUESTION NO. 9
Refer to the direct testimony of witness Schatz at page 17, line 20.

(a) Please provide the average deployment costs on which Pepco based its transportation electrification program budgets. (Please provide this information by program-type.)

(b) Please explain what is meant by "market trends" and how Pepco used those "market trends" to inform the development of its proposed program targets and program budgets.

RESPONSE:

(a) See OPC DR 8-9 Attachment Electronic Only.

(b) Market trends include, but are not limited to, available industry reports on costs, EV adoption data, supply chain and materials cost trends, and benchmarking of program design, targets, and budgets compared to peer utilities. Pepco used these market trends for comparison with the proposed programs for proposed targets and budgets.

SPONSOR: Pearl Donohoo-Vallett

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO OPC DATA REQUEST NO. 8

QUESTION NO. 13
Referring generally to Pepco's proposed Private Fleet Charging program.

(a) Please list the utility programs in other jurisdictions that Pepco reviewed in the development of this program.

(b) Did Pepco model this program after a specific utility program? (If yes, please provide the name of the utility and program, and the docket or case number in which it was approved by the regulator.)

(c) Please explain why Pepco is proposing additional make-ready incentives for fleets when the final evaluation of the current fleet make-ready program is not yet complete.

(d) When is the Company's existing Fleet Program expected to end?

RESPONSE:

(a) See response to OPC DR 8-4a.

(b) The Private Fleet Charging program design was modeled after the fleet programs approved by the Commission via Letter Order, Mail Log No. 242312, Case No. 9478 (September 14, 2022). It was also informed by industry best practices and lessons learned from other make-ready programs around the country but is tailored to the community's EV charging ecosystem in Pepco's Maryland territory.

(c) Please refer to lines 10-19 on page 25 of Company Witness Schatz's Direct Testimony.

(d) The existing Fleet program is expected to end September 2025.

SPONSOR: Pearl Donohoo-Vallett

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO OPC DATA REQUEST NO. 8

QUESTION NO. 17
Refer to the description of the Destination Charging Make-Ready program on page 3 of Pepco Schedule (DSS)-1.

(a) How does Pepco define "small business"?

(b) How did Pepco develop the incentive caps of up to $3,000 of utility-side costs per port and up to $12,000 of customer-side costs per port for J40 communities? (Please provide all associated workpapers and sources.)

(c) How did Pepco develop the incentive caps of up to $2,400 of utility-side costs per port and up to $9,600 of customer-side costs per port for non-J40 locations? (Please provide all associated workpapers and sources.)

(d) What are the average utility-side make ready costs at commercial facilities and travel destinations? (Please provide average costs for the Pepco service territory if available.,)

(e) What are the average customer-side make ready costs at commercial facilities and travel destinations? (Please provide average costs for the Pepco service territory if available.)

(f) If the cost of the make-ready work at the location is more than the incentive caps, how will Pepco recover those costs?

(g) Please explain how Pepco will provide the make-ready incentive to the customer. For example, will the customer receive a rebate or a reduced fee for the completed make-ready work? (Please provide a response separately for utility-side make-ready and customer-side make-ready.)

(h) Will Pepco conduct the make-ready work on the customer-side of the meter? (Please explain why or why not.)

(i) Please explain the anticipated role of the "outside vendors".

RESPONSE:

(a) For the purpose of the Destination Charging Make-Ready program, Pepco would align with the requirements of its Small Business Program for energy efficiency, which defines small business as a commercial customer an average of demand equal to or less 100 kW per month.

(b) See response to OPC DR 8-9.

(c) See response to OPC DR 8-9.

(d) See Response to OPC DC 8-9. Costs at commercial facilities can vary significantly based on the installation type, available capacity at the site, and customer preferences regarding the point of service. Some Level 2 charging sites may have sufficient available capacity and will not have any utility-side costs, whereas others may need new or upgraded service to support the charging installation. No distinction was made between commercial facility types (e.g., retail location, workplace) for the cost assumptions of Level 2 charging installations.

(e) See response to OPC DR 8-17 d.

(f) As described in response to OPC DR 8-5b, the customer is responsible for costs in excess of proposed incentive caps.

(g) For both FTM/utility-side make-ready work and BTM/customer-side make-ready work, Pepco will provide customers with a rebate, in the form of a reimbursement check, for the calculated incentive based on eligible costs.

(h) See response to OPC DR 8-5a.

(i) Pepco may choose to contract with outside vendors such as third-party program implementation firms or marketing firms that specialize in EV charging customer programs to support the program implementation. Vendors may be used to create participant portals and program materials, provide customer service functions, review and approve customer applications, process incentive payments, conduct marketing and outreach, and support program reporting.

SPONSOR: Pearl Donohoo-Vallett

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO OPC DATA REQUEST NO. 8

QUESTION NO. 18
Refer to the application process for the Destination Charging Make-Ready program on page 4 of Pepco Schedule (DSS)-1. Will Pepco require the customer to commit to supporting the operation of the charging site for a certain number of years? (If yes, please explain the requirement and number of years. If not, please explain why not.)

RESPONSE:

Yes. Pepco will require the customer to commit to supporting the operation of the charging site for five years. Sites must have chargers that work as intended, maintain cloud connected networking services, and report charging session and utilization data to Pepco. Pepco will use this data (such as time of charge and duration of charge) to inform planning processes going forward.

SPONSOR: Pearl Donohoo-Vallett

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO OPC DATA REQUEST NO. 8

QUESTION NO. 20
Refer to the description of the Public Transit Make-Ready program on pages 5-6 of Pepco Schedule (DSS)-1.

(a) Please explain the rationale for providing for 100% of make-ready costs as opposed to a smaller percentage.

(b) How did Pepco develop the incentive caps of up to $170,000 per site? (Please provide all associated workpapers and sources.)

(c) Please provide what portion of the $170,000 is expected to cover utility-side make-ready costs, customer-side make-ready costs, and engineering costs.

(d) What are the average utility-side make ready costs for public transit charging sites? (Please provide average costs for the Pepco service territory if available.)

(e) What are the average customer-side make ready costs for public transit charging sites? (Please provide average costs for the Pepco service territory if available.)

(f) If the total costs of the work are more than $170,000 how will Pepco recover those costs?

(g) Please explain how Pepco will provide the make-ready incentive to the customer. For example, will the customer receive a rebate or a reduced fee for the completed make-ready work? (Please provide a response separately for utility-side make-ready, customer-side make-ready, and engineering costs.)

(h) Will Pepco conduct the make-ready work on the customer-side of the meter? (Please explain why or why not.)

(i) Please explain why Pepco is not proposing to carve-out of percentage of funds for make-ready work for public transit located in and/or serving Justice 40 communities, underserved communities, and environmental justice communities?

(j) How will Pepco track whether fleets participating in this program are benefiting J40 communities?

RESPONSE:

(a) The 100% coverage of make-ready costs aligns with the Pepco, BGE, and Delmarva Power EV Fleet Programs approved by the Commission via Letter Order, Mail Log No. 242312, Case No. 9478 (September 14, 2022). Specifically, under those programs, businesses

serving disadvantaged communities are eligible for 100% of eligible costs. Pepco assumes a large portion of the vehicles being electrified by eligible customers will serve J40 communities.

(b) See response to OPC DR 8-9.

(c) Public transit bus fleets have a wide variety of depot location configurations and operational requirements, which may lead to unique EV charging infrastructure needs. For this reason, Pepco has proposed a total make-ready cost cap of $170,000 to allow greater flexibility for customers to maximize their incentive.

(d) See "Fleet Cost Assumptions" in OPC DR 8-9 Attachment. As noted in response to 8-20(c), public transit bus fleets have a wide variety of depot location configurations and operational requirements, which may lead to unique EV charging infrastructure needs. Many factors will drive make-ready costs, including the customer's fleet electrification plans, installation type, available capacity at the site, and customer preferences regarding the point of service.

(e) See Response to OPC DR 8-20 d.

(f) See response to OPC DR 8-17 f.

(g) See response to OPC 8-17 g.

(h) As described in response to 8-5 a, Pepco will not construct or own equipment on the customer-side of the meter.

(i) Pepco is not proposing to carve-out a percentage of funds for J40 communities under the Public Transit Make-Ready program because the proposed incentive levels for the Public Transit Make-Ready program are already sized to provide 100% of eligible make-ready costs, in line with the J40 incentive levels described for other proposed programs. Pepco has assumed that eligible customers (customers managing public medium- and heavy-duty fleets that serve riders in Pepco's service territory) will serve a diverse population, including J40 communities.

(j) See response to OPC 8-6d.

SPONSOR: Pearl Donohoo-Vallett

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO OPC DATA REQUEST NO. 8

QUESTION NO. 21
Refer to the application process for the Public Transit Bus Make-Ready program on page 5 of Pepco Schedule (DSS)-1. Will Pepco require the customer to commit to supporting the operation of the charging site for a certain number of years? (If yes, please explain the requirement and number of years. If not, please explain why not.)

RESPONSE:

Yes, Pepco will require customers to commit to operating the resulting charging stations for a period of five years.

SPONSOR: Pearl Donohoo-Vallett

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO OPC DATA REQUEST NO. 8

QUESTION NO. 22
Refer to the description of the Multifamily Make-Ready program on page 7 of Pepco Schedule (DSS)-1.

(a) How did Pepco develop the incentive caps of up to $3,000 of utility-side costs per port and up to $12,000 of customer-side costs per port for J40 communities? (Please provide all associated workpapers and sources.)

(b) How did Pepco develop the incentive caps of up to $2,400 of utility-side costs per port and up to $9,600 of customer-side costs per port for non-J40 locations? (Please provide all associated workpapers and sources.)

(c) What is the rationale for providing 80% of the make-ready costs instead of a smaller or larger percentage for non-J40 locations?

(d) Please confirm that non-J40 locations are not eligible for the added $4,000 per port incentive to reduce customer site costs. (If confirmed, please explain why these incentives are not provided.)

(e) What are the average utility-side make ready costs for multifamily charging sites? (Please provide average costs for the Pepco service territory if available.)

(f) What are the average customer-side make ready costs for multifamily charging sites? (Please provide average costs for the Pepco service territory if available.)

(g) If the cost of the make-ready work at the location is more than the incentive caps, how will Pepco recover those costs?

(h) Please explain how Pepco will provide the make-ready incentive to the customer. For example, will the customer receive a rebate or a reduced fee for the completed make-ready work? (Please provide a response separately for utility-side make-ready, customer-side make-ready, and customer site costs.)

(i) Please define what is included in “eligible costs” of customer site costs.

(j) Will customers be required to provide receipts for completed work to receive the incentive for customer site costs? (Please explain.)

(k) Will Pepco conduct the make-ready work on the customer-side of the meter? (Please explain why or why not.)

(l) Will Pepco decrease the number of ports per site depending on the size of the multifamily property or are all properties, regardless of size, eligible for incentives for "up to 20 ports per site"?

RESPONSE:

(a) See Response OPC DR 8-9.

(b) See Response OPC DR 8-9.

(c) Pepco has proposed that non-J40 multifamily customers may receive up to 80% of eligible make-ready costs because this incentive structure and level is similar to other utility programs, see OPC DR 8-4 Attachment. Multifamily customers located in J40 communities are more likely to face additional barriers to installing EV charging, so the enhanced incentive level of 100% of eligible costs is intended to help reduce cost barriers. Multifamily customers in non-J40 locations may still be challenged by the economics of installing EV charging, and an 80% incentive level can help remove barriers for these customers as well.

(d) Correct, non-J40 locations are not eligible for the added $4,000 per port incentive intended to reduce customer site costs. As stated in lines 20-22 on page 16 of Company Witness Schatz's Direct Testimony, the proposed programs (including the Multifamily Make-Ready Charging program) offer additional incentives to deploy infrastructure in J40 communities to promote equitable outcomes in electrifying transportation. Therefore, the enhanced incentive for J40 locations is intended to further reduce barriers for J40 customers.

(e) See response OPC DR 8-9.

(f) See response OPC DR 8-9.

(g) See response to OPC DR 8-5 b.

(h) See response to OPC DR 8-17 g.

(i) Eligible customer site costs are costs necessary to facilitate charging infrastructure and may include networking and telecommunications costs specific to the charging station, maintenance plans, and signage.

(j) Yes, customers must provide detailed documentation of eligible costs incurred in order to receive the incentive.

(k) As described in response to OPC DR 8-5(a), Pepco will not construct or own equipment on the customer-side of the meter.

(l) To allow flexibility for a range of site types, all qualified customers/properties will be eligible for incentives for "up to 20 ports per site."

SPONSOR: Pearl Donohoo-Vallett

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO OPC DATA REQUEST NO. 8

QUESTION NO. 23
Refer to the application process for the Multifamily Make-Ready program on page7 of Pepco Schedule (DSS)-1. Will Pepco require the customer to commit to supporting the operation of the charging site for a certain number of years? (If yes, please explain the requirement and number of years. If not, please explain why not.)

RESPONSE:

Yes, Pepco will require the customer to commit to supporting the operation of the charging site for five years. Sites must have chargers that work as intended, maintain cloud connected networking services, and report charging session and utilization data to Pepco. Pepco will use this data (such as time of charge and duration of charge) to inform planning processes going forward.

SPONSOR: Pearl Donohoo-Vallett

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO OPC DATA REQUEST NO. 8

QUESTION NO. 24

Refer to the description of the Private Fleet Charging program on page 8 of Pepco Schedule (DSS)-1.

(a) How did Pepco develop the incentive caps of up to $15,000 of utility-side make-ready costs and up to $30,000 of customer-side make-ready costs? (Please provide all associated workpapers and sources.)

(b) Please confirm if Pepco is proposing to offer incentives for the purchase of Level 2 and DCFC chargers as part of this program. (If confirmed, please indicate the level of incentive per Level 2 and DCFC charger.)

(c) If the answer to OPC DR 8-24(b) is confirmed, what portion of the $30,000 customer-side make-ready costs is intended to cover the cost of the charger and the charger installation.

(d) Will Pepco own and operate the Level 2 and DCFC chargers? (Please explain.)

(e) What is the definition of a "private fleet"?

(f) What are the average utility-side make ready costs for private fleet charging sites? (Please provide average costs for the Pepco service territory if available.)

(g) What are the average customer-side make ready costs for private fleet charging sites? (Please provide average costs for the Pepco service territory if available.)

(h) If the cost of the make-ready work at the location is more than the incentive caps, how will Pepco recover those costs?

(i) Please explain how Pepco will provide the make-ready incentive to the customer. For example, will the customer receive a rebate or a reduced fee for the completed make-ready work? (Please provide a response separately for utility-side make-ready, customer-side make-ready, and customer site costs.)

(j) Will Pepco conduct the make-ready work on the customer-side of the meter? (Please explain why or why not.)

RESPONSE:

(a) See response to OPC DR 8-9.

(b) Please refer to Schedule (DSS)-1 section 5.

(c) Pepco has not outlined a set incentive per Level 2 or DCFC charger.

(d) No, Pepco will not own and operate stations installed by customers participating in the Private Fleet Charging program.

(e) In the context of this program, "private fleet" refers to a group of vehicles used by a single company for transportation purposes with at least five vehicles operating in or serving J40 communities in Pepco's Maryland service territory. Please refer to Schedule (DSS)-1 section 5.1.

(f) See response to OPC DR 8-9.

(g) See response to OPC DR 8-9.

(h) See response to OPC DR 8-5 b.

(i) See response to OPC DR 8-17 g.

(j) See response to OPC DR 8-5 b.

SPONSOR: Pearl Donohoo-Vallett

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO OPC DATA REQUEST NO. 8

QUESTION NO. 25
Please refer to Pepco's proposal defer Electrifying Transportation portfolio costs into a regulatory asset on pages 22-24 of the direct testimony of witness Robert T. Leming and provide the following information:

(a) In Microsoft Excel, please provide the annual revenue requirement for the Electrifying Transportation portfolio costs that Pepco proposes to be accounted for as regulatory assets. This should be provided for the entire proposed five-year amortization period of the proposal on an annual basis. Please include in the response all supporting workpapers, calculations, and assumptions in Excel with formulas intact.

(b) In Microsoft Excel, please provide the annual revenue requirement for Pepco's proposal, assuming Electrifying Transportation portfolio costs are treated as an expense and not a regulatory asset. Please include in the response all supporting workpapers, calculations, and assumptions in Excel with formulas intact.

RESPONSE:

(a) Please see MD 9702 OPC DR 8-25 Attachment A Electronic Only for the annual revenue requirement for the Electrifying Transportation portfolio costs that Pepco proposes to be accounted for as regulatory assets.

(b) Please see MD 9702 OPC DR 8-25 Attachment B Electronic Only for the annual revenue requirement for the Electrifying Transportation portfolio costs assuming that the program funds included in MD 9702 OPC DR 8-25 Attachment A Electronic only are treated as an expense.

SPONSOR: Robert T. Leming

TE Revenue Requirement - Regulatory Asset Treatment
Pepco MD Distribution

(Thousands of Dollars)	12 Months Ending Mar-25	12 Months Ending Mar-26	12 Months Ending Mar-27	12 Months Ending Mar-28	12 Months Ending Mar-29	12 Months Ending Mar-30	12 Months Ending Mar-31	12 Months Ending Mar-32	12 Months Ending Mar-33
Transportation Electrification Reg Asset Spend - Deferred	$ 9,842	$ 13,147	$ 15,051	$ 4,140	$ -	$ -	$ -	$ -	$ -
Annual Amortization Expense	$ 1,066	$ 3,393	$ 6,325	$ 8,160	$ 8,436	$ 7,370	$ 5,043	$ 2,111	$ 275
MD Income Tax Impact of Amortization	(88)	(280)	(522)	(673)	(696)	(608)	(416)	(174)	(23)
Federal Income Tax Impact of Amortization	(205)	(654)	(1,219)	(1,572)	(1,625)	(1,420)	(972)	(407)	(53)
Net Earnings Impact of Amortization	**$ (773)**	**$ (2,459)**	**$ (4,584)**	**$ (5,915)**	**$ (6,115)**	**$ (5,342)**	**$ (3,655)**	**$ (1,530)**	**$ (199)**
Average Regulatory Asset Balance	$ 5,331	$ 16,416	$ 30,960	$ 40,587	$ 42,179	$ 42,179	$ 42,179	$ 42,179	$ 42,179
Average accumulated amortization balance	(415)	(2,562)	(7,388)	(14,797)	(23,162)	(31,215)	(37,472)	(41,082)	(42,109)
Total average unamortized rate base balance	$ 4,916	$ 13,854	$ 23,572	$ 25,790	$ 19,017	$ 10,964	$ 4,707	$ 1,097	$ 70
ADIT	(1,353)	(3,812)	(6,486)	(7,097)	(5,233)	(3,017)	(1,295)	(302)	(19)
Net Rate Base Balance, Net of ADIT	**$ 3,563**	**$ 10,042**	**$ 17,086**	**$ 18,693**	**$ 13,784**	**$ 7,947**	**$ 3,412**	**$ 795**	**$ 51**
Proposed ROR (MD Case No. 9702)	7.77%	7.79%	7.80%	7.81%	7.81%	7.81%	7.81%	7.81%	7.81%
Return	**$ 277**	**$ 782**	**$ 1,333**	**$ 1,460**	**$ 1,077**	**$ 621**	**$ 266**	**$ 62**	**$ 4**
Revenue Requirement - Pre-Gross up	$ 1,050	$ 3,241	$ 5,917	$ 7,375	$ 7,192	$ 5,963	$ 3,921	$ 1,592	$ 203
Gross-up Factor	70.3166%	70.3166%	70.3166%	70.3166%	70.3166%	70.3166%	70.3166%	70.3166%	70.3166%
Revenue Requirement	**$ 1,493**	**$ 4,610**	**$ 8,414**	**$ 10,488**	**$ 10,227**	**$ 8,480**	**$ 5,577**	**$ 2,264**	**$ 289**

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO OPC DATA REQUEST NO. 10

QUESTION NO. 8
Refer to Table 6 on page 10 of Schedule (DSS)-1 of the direct testimony of witness Schatz. Please provide this table in Microsoft Excel Format with the following additional information:

(a) For each program, in each year of the MYP, provide the budget broken out by the following categories: Incentives, Administrative Costs, and Customer Education and Outreach Costs.

(b) For each budget category within each program provide the costs broken out by the following incentive types: utility-side make-ready, customer-side make-ready, equipment, engineering, and customer site costs. Where applicable provide the allocation of these funds between J40 and non-J40 communities.

(c) For each budget category and incentive type described in (a) and (b), identify which are considered a capital cost, operating and maintenance expense, or are proposed to be treated as a regulatory asset.

RESPONSE:

(a) See OPC DR 10-8 Attachment Electronic Only, the "Annual Budget" tab.

(b) See OPC DR 10-8 Attachment Electronic Only specifically Columns T through X in the "Incentive Cost Assumptions" tab.

(c) See Response OPC DR 8-5 c.

SPONSOR: Pearl Donohoo-Vallett & Robert T. Leming

Program Component	Count (unit specified by program)	Incentive Budget				
		Utility-Side Make-Ready $	Customer-Side Make-Ready $	*Total Make-Ready (includes engineering) $*	Customer Site Cost $	Total Incentives $
Destination non-J40 (L2 ports)	600	$1,440,000	$5,760,000	$7,200,000	$0	$7,200,000
Destination J40 (L2 ports)	400	$1,200,000	$4,800,000	$6,000,000	$1,600,000	$7,600,000
Destination Total (L2 ports)	**1000**					**$14,800,000**
Public Transit Bus Total (sites, assume 4 x 150kW DCFC)	**35**	**$0**	**$0**	**$5,950,000**	**$0**	**$6,000,000**
Multifamily non-J40 (L2 ports)	150	$360,000	$1,440,000	$1,800,000	$0	$1,800,000
Multifamily J40 (L2 ports)	100	$300,000	$1,200,000	$1,500,000	$400,000	$1,900,000
Multifamily Total (L2 ports)	**250**					**$3,700,000**
Private Fleet Charging Total (sites, assume 4 x 150kW DCFC, potential for L2)	**50**	**$750,000**	**$1,500,000**	**$2,250,000**	**$0**	**$2,250,000**
Total						**$26,750,000**

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO STAFF DATA REQUEST NO. 31

QUESTION NO. 1
Please explain in detail the difference between Schedule SL and the Schedule SSL classes.

a. Please explain what costs each rate class recovers.

b. Please explain the different rate design structure for SL and the SSL classes.

RESPONSE:

a. Schedule SL is the mechanism by which the Company recovers the cost of distribution system service provided to street lighting customers for street lighting. It is not related to the servicing of street lights.

   Schedule SSL is the mechanism by which the Company recovers the cost of servicing Company-owned streetlights. The services provided under this schedule are provided in the section "Character of Service" under each of the Schedule SSL tariffs.

b. Schedule SL is a dollar per kilowatt-hour rate applied to monthly kilowatt-hour consumption. The dollar per kilowatt-hour rate is differentiated between lights controlled for night burning (which are billed at the dollar per kilowatt-hour rate for Standard Night Burning street lights) and lights not controlled for night burning (which are billed at the dollar per kilowatt-hour rate for 24-Hour Burning street lights).

   Schedule SSL is composed of dollar per fixture (or pole attachment) rates based on light types (e.g., wattage, incandescent versus mercury vapor, overhead versus underground) and whether, with respect to the traditional lighting options, the customer has opted for Company-supplied maintenance or customer supplied maintenance with respect to the fixture.

SPONSOR: Peter R. Blazunas

SUPPLEMENTAL RESPONSE – November 28, 2023

Please note that Schedules SSL-OH and SSL-OH LED are the mechanisms by which the Company recovers the cost of servicing Company-owned streetlights served from overhead lines and Schedules SSL-UG and SSL-UG LED are the mechanisms by which the Company recovers the cost of servicing customer-owned streetlights served from underground lines.

SPONSOR: Peter R. Blazunas

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO OPC DATA REQUEST NO. 31

QUESTION NO. 8
Refer generally to Pepco's proposed Electrifying Transportation programs.

(a) Does the Company plan to conduct an evaluation of the programs at the end of the MYP? Please explain why or why not?

(b) If the Company is planning to conduct an evaluation, is the cost of that evaluation included in the MYP? If yes, please provide the total cost in the MYP.

RESPONSE:

(a) Yes, Pepco plans to conduct an evaluation of the programs. Due to the evolving nature of the transportation electrification market, Pepco intends to evaluate the programs for the purposes of continued improvement and learnings to be applied to future program design and implementation of EV programs to facilitate the State's achievement of climate and clean energy goals.

(b) Yes, Pepco's proposed administrative costs include estimated program evaluation costs. Final costs will be determined based on the evaluation requirements established in a resulting Order from the Commission.

SPONSOR: Pearl Donohoo-Vallett

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9702
RESPONSE TO PCG DATA REQUEST NO. 1

QUESTION NO. 14

If the Destination Charging Make-Ready Program, and the Multifamily Charging Make-Ready Program remain, please state in detail how Pepco will comply with its statement that "At least 40% of incentive dollars are directed to economically vulnerable communities, inspired by the federal Justice40 Initiative", and how Pepco will measure that compliance? In addition, what digital or non-digital tools will Pepco use to determine applicability and allocate Justice 40 Initiative incentive dollars

RESPONSE:

Please refer to Section 2 and Section 4 of Schedule DSS-1 of Company Witness Schatz's testimony for detailed information about how Pepco will comply with its Justice 40 (J40) Initiative commitment.

Pepco will identify customers eligible for the enhanced J40-level incentives using the Department of Energy (DOE) definition of disadvantaged communities (DAC). DOE defines DAC as a census tract 1) ranking in or above the 80th percentile of the cumulative sum of the 36 burden indicators for its state, and 2) having at least 30% of households classified as low-income. Pepco will use the DOE mapping tool (https://energyjustice.egs.anl.gov/) to determine if a customer is located in a J40 community and is eligible for the up to 100% incentive level. Pepco will measure progress toward its goal by tracking metrics such as the number of sites, EV charging ports, and incentive dollars deployed in J40 locations. Progress toward this goal will be reported in semi-annual reports.

SPONSOR: David S. Schatz