BEFORE THE
PUBLIC SERVICE COMMISSION
OF THE DISTRICT OF COLUMBIA

IN THE MATTER OF THE APPLICATION OF THE POTOMAC ELECTRIC POWER COMPANY FOR AUTHORITY TO IMPLEMENT A MULTIYEAR RATE PLAN FOR ELECTRIC DISTRIBUTION SERVICE IN THE DISTRICT OF COLUMBIA	)	**Formal Case No. 1176**

Direct Testimony of

Courtney Lane

On Behalf of

The District of Columbia Government

January 12, 2024

Exhibit DCG (A)

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I. INTRODUCTION AND QUALIFICATIONS

Q Please state your name, title, and employer.

A My name is Courtney Lane. I am a Principal Associate at Synapse Energy Economics (Synapse), located at 485 Massachusetts Avenue #3, Cambridge, MA 02139.

Q Please describe Synapse Energy Economics.

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 summarize 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 utility regulatory models, grid modernization, benefit-cost assessment frameworks, and performance incentive mechanisms. 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. Part of this role included the development of performance incentive mechanisms (PIM). In previous roles at National Grid, I worked on the deployment of non-wires alternatives (NWA) and grid modernization efforts and led the development of annual and three-year energy efficiency plans. Prior to joining National Grid, I worked on regulatory and state policy issues pertaining to energy conservation, 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 DCG (A)-1.

Q Have you previously testified before the Public Service Commission of the District of Columbia?

A Yes. I sponsored written testimony before the Public Service Commission of the District of Columbia (the Commission) in Formal Case (FC) No. 1156 on behalf of the District of Columbia Government (DCG or the District).

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 New Hampshire Public Utilities Commission, and the New Mexico Public Regulation Commission. A list of my previous testimony is contained in Exhibit DCG (A)-1.

Q On whose behalf are you testifying in this case?

A I am presenting testimony on behalf of DCG.

Q What is the purpose of your direct testimony?

A The purpose of my direct testimony is to review and assess the design of the Potomac Electric Power Company's (Pepco or Company) second multi-year plan (MYP) and whether it will result in benefits to customers and sufficiently support the District's energy policy and climate goals. I also address Pepco's supplemental testimony filed in response to Commission Order in Order No. 21886 related to the purported benefits of Pepco's Modified Enhanced Multiyear Rate Plan (Modified EMRP) as approved in FC No. 1156 and whether the results of the Modified EMRP are sufficient to justify a second MYP. I do not address all aspects of the Company's application; silence on any issue should not necessarily be taken as acceptance of the Company's proposals.

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

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

Q Are there any exhibits accompanying your testimony?

A Yes. I am sponsoring Exhibits DCG (A)-1 through DCG (A)-33 Exhibit DCG (A)-1 is my resume and Exhibits DCG (A)-2 through DCG (A)-33 are some of the data responses I relied upon for my testimony.

Q Were these exhibits and your direct testimony prepared by you or under your direction?

A Yes. My direct testimony and the accompanying exhibits were prepared by me or under my direct supervision and control.

II. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Q Please summarize your primary conclusions regarding Pepco's MYP proposal.

A My main conclusion is that the Commission should reject the Company's MYP proposal because it contains the following critical flaws:

1. The Company's proposed MYP does not provide appropriate incentives to the Company to contain its costs or protect its customers from unreasonable rates due to (a) the misguided adoption of the reconciliation process used in Maryland, and (b) the use of a Company-specific cost forecast to build its revenue requirements.

2. Pepco's MYP is not a "Climate Ready Pathway" and instead uses the guise of supporting the District's climate goals as a means to increase business-as-usual investments that do not adequately advance the District's energy and climate goals such as (1) grid modernization, (2) increasing adoption of distributed energy resources (DER), and (3) development of NWAs.

3. The proposed MYP fails to include PIMs to incentivize the Company to act in furtherance of the District's climate goals, or commit to the continued tracking of the performance of its investments contained in the MYP to ensure that MYP investments are in fact advancing the District's energy and climate policy goals.

I also find that the Company's evaluation of its first MYP pilot program as approved in FC 1156 fails to provide sufficient data to support the approval of a second MYP in the instant proceeding.

Q Please summarize your recommendations.

A I offer the following recommendations:

- The Commission should continue historical test year ratemaking until an evaluation framework is developed for how to track and assess the benefits of an MYP on a pilot basis.

- The Commission should not approve an MYP until Pepco develops a comprehensive long-term grid modernization plan and integrated distribution plan (IDP).

- Should the Commission approve an MYP in the future, it should require that any proposal (1) not be permitted to include reconciliations of utility under-earnings, (2) include an index-based cost escalator to escalate the historical test year revenue requirement for each year of the MYP, (3) provide for more transparency pertaining to grid modernization efforts, and (4) include PIMs that advance the District's energy and climate goals.

- Regardless of whether the Commission directs Pepco to operate under an MYP or cost of service regulation, I recommend that the Commission:

a) Require Pepco to develop and file an IDP and comprehensive grid modernization plan that includes a system needs assessment; technology investment roadmap, timeline, and benefit-cost analysis (BCA) that adheres to the framework to be developed in accordance with Commission Order No. 21938 issued on December 8, 2023, in General Docket No. 2019-04-M; and,

b) Establish explicit metrics and targets to guide Pepco's activities for grid modernization.

III. SUMMARY OF PEPCO'S MYP PROPOSAL

Q Please summarize Pepco's MYP proposal.

A Pepco proposes a second MYP that sets revenues for a three-year MYP term of 2024–2026. Pepco uses the calendar year 2022 as the historical test year and proposes three rate adjustments for each year of the MYP. The rate adjustments are based on the Company's Long Range Plan (LRP) for distribution operations and maintenance (O&M) and capital investments. The proposed rate adjustments result in an incremental revenue requirement increase of $116.4 million, $37.9 million, and $37.3 million for MYP Year 1, Year 2, and Year 3, respectively.[1]

[1] Direct Testimony of Elizabeth Morgan Downs O'Donnell, Pepco (A), at 32, Table 1.

Q What is the residential bill impact of Pepco's proposed MYP?

A Pepco's proposed MYP revenue requirements would result in substantial annual increases in customer bills. In the first year bills would increase by 6.37 percent, followed by an additional increase of 5.96 percent in the second year, with another increase of 5.61 percent in the third year.[2]

Q What is Pepco's justification for the increase in revenue requirements over the MYP?

A The Company states that the increase in revenue requirements is driven by the need for additional capital investments and ongoing costs to "maintain and modernize the distribution grid so that the Company can continue providing safe and reliable service to its customers."[3] Pepco states that the work included in the MYP is required to deliver a "climate-ready grid" to support and enable the District's greenhouse gas emission (GHG) reduction goals.[4]

Q Does Pepco propose changes to the structure of the Modified EMRP approved in FC 1156?

A Yes. The Company proposes three changes to the structure of the MYP as follows:[5]

1. changes to how revenues and expenses are forecast over the MYP (i.e., the attrition relief mechanism or "ARM"),
2. the reconciliation process, and
3. the stay-out provision.[6]

[2] Direct Testimony of Robert T. Leming, PEPCO (B), at 4, lines 10-12.
[3] *Id*., at 5, lines 15-17.
[4] *Id*., at 5, lines 17-19.
[5] *Id*., at 2, lines 16-19.
[6] *Id*., at 7-8.

Further, the Company is not proposing any PIMs or tracking metrics. I provide a summary comparison of the MYP components as included in the Modified EMRP and as proposed in the instant proceeding in Table 1 below.

Table 1. Comparison of Structure of Modified EMRP and Proposed MYP[7]

MYP Component	Modified EMRP (FC 1156)	Proposed MYP (FC 1176)
ARM	2.17% escalation of historical test year revenue and O&M	Company's LRP
Reconciliation	1) Annual Informational Filing 2) Final reconciliation and prudency review after the conclusion of the MYP	1) Annual Informational Filing 2) Consolidated reconciliation and prudency review in a subsequent rate case 3) Final reconciliation and prudency review after the conclusion of the MYP
Stay-out Provision	Stay-out that does not allow for a rate update during the MYP rate effective period, and one year after the conclusion of the MYP	Stay-out that does not allow for a rate update during the MYP rate effective period
Deferred Accounting Mechanism	Included	Included
Re-opener Provision	Included	Included
PIMs	Climate and Clean Energy tracking PIMs	None

[7] *Id*., at 8, Table 3.

IV. PEPCO'S PROPOSED CHANGES TO THE MYP REDUCE INCENTIVES FOR COST CONTAINMENT

Use Of Cost Forecasts Should Be Limited

Q Please describe how the Company projected revenues and expenses for the Modified EMRP.

A In the Modified EMRP approved in FC 1156, the Company began with plant-related items and O&M expense for a historical test period and applied an escalation factor of 2.17 percent annually over the Modified EMRP term to project annual additions to plant in service and O&M expenses.[8]

Q How does Pepco propose to project revenues and expenses over its proposed MYP?

A Instead of using a fixed escalation factor, Pepco developed a Company-specific forecast for revenues and expenses based on its LRP.

Q Why does Pepco propose to use a forecast based on its LRP?

A The Company claims that using the LRP as the basis for its revenue requirement forecast is a "reasonable and more appropriate approach" because it provides parties in this proceeding and customers with transparency into Pepco's plans. Pepco contends that using the LRP will ensure that the basis for the revenue requirements are "rooted in plans that support the District's goals and policies."[9] The Company argues that the prior escalation approach employed in the Modified EMRP is not able to reflect year-to-year changes in inflation and supply chain issues over the three-year term of the MYP and is

[8] *Id.*, at 8, lines 5-9.
[9] *Id.*, at 9, lines 8-11.

therefore a suboptimal approach to aligning Pepco's rates and revenues with the costs it will incur to provide electric service to its customers.

Q Do you agree with the Company's proposal to base revenue requirements off its forecast?

A No, for several reasons. First, revenues should not be based on cost forecasts because doing so shifts risk to customers. Second, Pepco's LRP does not provide sufficient information for stakeholders to adequately vet the proposed investments. Finally, the use of cost forecasts is not necessarily more accurate than an external index, as the Company does not have perfect foresight regarding issues related to supply chain complications or inflation.

Q Please explain why the use of a Company-specific cost forecast shifts risks to customers.

A The use of a utility-specific cost forecast exacerbates information asymmetries since the utility will always have the most technical knowledge and information regarding its systems, which creates significant challenges for the intervening parties and regulators to ensure that cost forecasts are reasonable. As explained by the National Regulatory Research Institute:

> "Information asymmetry reflects the relatively less knowledge that a regulator has (relative to the utility's) on the correlation between forecasted costs and utility-management competence. When a utility files a cost forecast, how does the regulator know whether it reflects competent management? The analyst or auditor can evaluate the forecast applying state-of-the-art techniques; still, however, a level of uncertainty remains

that leaves unknown the utility's level of managerial competence embedded in the forecast."[10]

Due to the fact that intervening parties and regulators can never completely vet the accuracy of cost forecasts, utilities have an inherent bias to overstate their costs and understate revenues. When a utility's rate of return is greater than the cost of borrowing, utilities have a financial incentive to maximize their capital expenditures in order to increase rate base and thereby increase profits. This is often referred to as the Averch-Johnson effect.[11]

In addition, regulated utilities have an inherent incentive to favor capital expenditures over operating expenses in order to increase return to investors. Indeed, this can be seen in Pepco's parent company Exelon's Winter 2023 Investor Meeting slide deck, which touts to utility investors approximately $18 billion in expected rate base growth over 2023–2026 to be recovered through alternative recovery mechanisms such as MYPs. It also shows a capital plan that would result in expected rate base growth of 7.9 percent over that same period, including about $3.7 billion in new capital investments for Pepco.[12]

[10] Costello, K, 2016, *Multiyear Rate Plans and the Public Interest*, National Regulatory Research Institute, at 35–36.

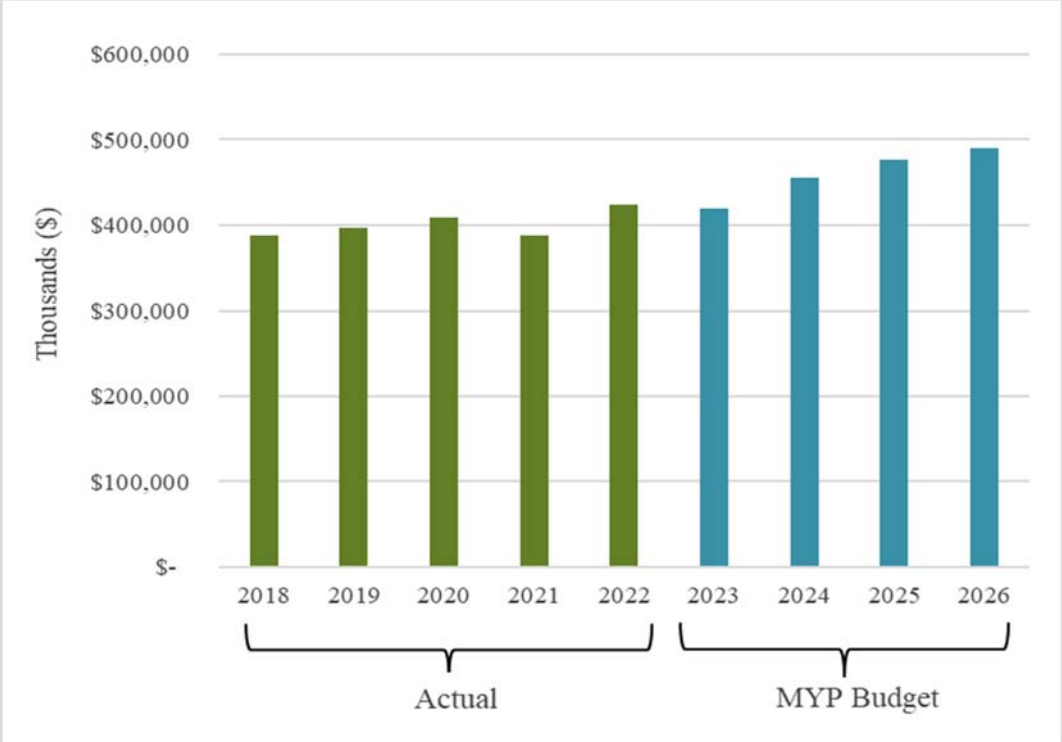
[11] The Averch-Johnson effect is identified by economists as the tendency of regulated companies to engage in excess capital investments to increase their profits and was originally published in the American Economic Review, vol. 52, no. 5, 1962, at 1052–1069 "Behavior of the Firm Under Regulatory Constraint" by Harvey Averch and Leland L. Johnson.

[12] Exelon Winter 2023 Investor Meetings at slides 11, 15, and 36. Available at: https://investors.exeloncorp.com/static-files/1ce013d3-79a4-4379-ad12-d81c28aa33c1

The combination of these factors incentivizes utilities to over-estimate future costs to maximize their allowed revenues under an MYP and minimize the chance of overruns. For these reasons, cost forecasts are likely to be higher than necessary.

This risk to ratepayers is particularly concerning when one examines the increase in Pepco's requested capital budget in the MYP compared to actual capital spend in previous years as shown in the figure below.

Figure 1. Historical Capital Spend Compared to MYP Capital Budget[13]



[13] Pepco Response to DCG 7-2 Attachment A and DCG 5-19(C) Attachment, attached hereto as Exhibits DCG (A)-2 and DCG (A)-3, respectively.

Q Does the requirement of a prudency review protect ratepayers?

A Not sufficiently. The practical burden of proving imprudence of costs incurred is high, as it requires extensive time and resources by the challenger to request and comb through a vast amount of data to decipher exactly what the utility knew and when (if that is even possible from the information provided). As a result, it is often extremely challenging for other parties or the Commission to establish or even identify imprudence of costs in all but the most egregious cases. The fact that no parties conducted any discovery or filed any comments regarding Pepco's Final Reconciliation for the Modified EMRP implies the impracticality of this after-the-fact approach.[14]

Q Do you agree that by providing the LRP, Pepco is improving the transparency of its planned investments?

A No, I do not. As I will explain in more detail later in my testimony, simply including a list of planned investments without a long-term IDP provides little value to the parties in this case. Without the information provided in an IDP, there is not enough context for how Pepco's planned investments over the MYP term relate to existing or future planned grid modernization investments, how investments pertain to forecasts for DERs and electrification, and whether more cost-efficient solutions exist through NWAs.

Q The Company cites concerns related to supply chain issues and inflation variability. Does the use of a forecast resolve these issues?

A No. Issues related to uncertainty around inflation variability and supply chain issues are present under a Company-specific forecast and an escalation-based approach because the

[14] O'Donnell Supplemental Direct Testimony, PEPCO (2A), at 7, lines 16-18.

Company cannot accurately project inflation nor can it foresee with certainty supply chain issues. For example, during the Modified EMRP, Pepco spent far less than it projected.[15] According to the annual reconciliation filings, Pepco spent 29 percent less ($53.0 million) than its budget in 2021[16] and 13 percent less ($41.3 million) in 2022.[17] Pepco explains that these substantial deviations from its projected budget were primarily due to supply chain issues, which demonstrates that forecasts are not necessarily able to better align revenues with actual costs.

Furthermore, changes in inflation could be accounted for using the escalation factor approach. For example, a provision could be implemented whereby rates could be adjusted should annual inflation exceed a certain threshold (e.g., 5 percent) to add in a layer of protection to Pepco. In order to protect ratepayers, this provision would only be enacted should the Company's ROE also fall below its allowed ROE. A similar mechanism was implemented in New Hampshire, where Public Service Company of New Hampshire was allowed to adjust rates if inflation exceeded 4 percent.[18]

[15] Formal Case No. 1156, Order No. 20755 required that the Company reconcile actual O&M and plant closings to updated budgets that the Company was required to submit within 120 days from the date of the Order to facilitate reconciliation and prudency reviews.
[16] Formal Case No. 1156, Pepco Final Reconciliation for Modified Enhanced Multiyear Rate Plan (EMRP), March 31, 2022, Appendix 1, Schedule 3X - District of Columbia - Annual Reconciliation Filing - Capital Additions.
[17] Formal Case No. 1156, Pepco Final Reconciliation for Modified EMRP, March 31, 2023, Appendix 1, Schedule 2 - District of Columbia - Annual Reconciliation Filing - Capital Additions.
[18] The Brattle Group, "Exploring the Use of Alternative Regulatory Mechanisms to Establish New Base Rates," Joint Utilities' of Maryland Initial Comments, Maryland PC51, March 2019, Appendix, pg. 8.

Pepco's Proposed Reconciliation Process Should Be Rejected

Q Please summarize the Company's proposed reconciliation process.

A The Company proposes to implement the reconciliation process adopted by the Maryland Public Service Commission (MD PSC) in Order No. 89482. This process is nearly identical to that approved for the Modified EMRP. Pepco will still file an annual information filing that compares projected budgets to actuals within 90 days following the first and second rate-effective periods and will file a final reconciliation, subject to a prudency review, after the conclusion of the MYP term.

The key change is the additional filing of a consolidated reconciliation and prudency review. Unlike the Modified EMRP, Pepco proposes to file its next rate case prior to the end of the MYP term (as opposed to one year after the conclusion of the MYP). As part of this next rate case, Pepco would include a "consolidated reconciliation" of all actual costs incurred during the MYP term (2024–2026) available through the end of the new historical test year, which would be subject to a prudency review. All adjustments and reconciliations will be moved into rate base on a case-by-case basis as part of the new rate order. [19]

The final reconciliation and prudency review would address any investments and costs in the MYP that were not previously included in the consolidated reconciliation and prudency review. As part of this reconciliation process, Pepco would propose a rider mechanism to adjust customer rates for any over- or under-collections ultimately

[19] Leming Direct Testimony, PEPCO (B), at 10-15.

approved by the Commission.[20] As is required with the Maryland reconciliation process, in the case of over-collection (i.e., the Company spent less than its allowed revenues), the carrying costs would continue to apply during the period of any repayment to customers. In the case of under-collection (i.e., the Company spent more than its allowed revenues), the Company would not be allowed to recover carrying costs associated with the overspend.[21]

Q Pepco states that its reconciliation process incentivizes the Company to develop forecasts that are as close as possible to actual results.[22] Do you agree?

A No, I do not. I find that the proposed reconciliation process incentivizes Pepco to inflate its projected costs in the LRP and also reduces the Company's incentive to find cost efficiencies during the MYP term.

Q Please explain how the proposed reconciliation process incentivizes Pepco to inflate its cost forecasts.

A If the Company overspends its budget projections, it can recover the overspend itself, but it is not allowed to earn a return on that overspend. To minimize the risk of overspending and foregoing that return, the Company has an incentive to inflate its cost estimates so that its allowed revenue requirement is as high as possible.

Q How does the reconciliation process reduce Pepco's incentive to control costs?

A There are two ways in which the reconciliation process erodes Pepco's incentive to control costs. First, although Pepco is not allowed to earn a return on expenditures above

[20] *Id.,* at 10-15.
[21] MD PSC Order No. 89482 at ¶ 84.
[22] Leming Direct Testimony, PEPCO (B), at 10, lines 1-2.

its allowed revenue requirement, it *is* allowed to recover any spending above its allowed revenue requirement through the reconciliation process. If found prudent, these costs are then recovered from customers through a reconciliation mechanism. This is counter to traditional cost of service regulation in which a utility is not allowed to recover spending that exceeds its revenues between rate cases. Instead, under traditional cost-of-service regulation, base rates remain fixed between rate cases and a utility must live within the revenues provided by those rates or absorb any excess costs. Thus, the potential revenue loss for Pepco under the MYP with reconciliation is much less than under traditional cost-of-service regulation.

Second, while the penalties for overspending are relatively modest, the benefits to the Company of underspending (through pursuing cost efficiencies) are virtually non-existent. Through the reconciliation process, any underspending due to achieving cost efficiencies flows to customers, not to the Company. Thus, the full reconciliation of any cost savings to customers during both the Consolidated and Final Reconciliations at the end of the MYP term erodes any incentive to the Company to achieve cost savings. The Company confirms this fact in response to a District data request, in which it states that "accounting protocols require that when an overearning is demonstrated, and money would be owed to customers, that a liability be recorded to reflect that financial obligation. Recording that liability reduces earnings and offsets any improvement in Pepco's return on equity resulting from lower spend. While the reconciliation process

occurs towards the end of the MYP, annual informational filings which compare actual costs to those approved by the Commission occur annually."[23]

To summarize:

- Pepco has little incentive to find cost efficiencies because it receives no benefit from reducing its costs, and
- Pepco is better off overestimating its capital costs to ensure that it will not overspend its allowed revenues and forfeit the carrying costs associated with that overspend.

Q Outside of Maryland and the District, is it common for an MYP to reconcile costs?

A No. I am not aware of other jurisdictions that implement a similar reconciliation process for over- and underspending in the context of an MYP. Some states have implemented reconciliations for underspending, but otherwise reconciliations are limited outside of cost trackers for specific types of costs.

However, the forecasting and reconciliation process does bear similarities to formula rate plans. A formula rate plan formulaically ensures that revenues track costs (often measured as deviations in ROE from the utility's target ROE). Under a formula rate plan, if a utility spends less than it collects through revenues, the utility's return will exceed its ROE target, and it will be required to reduce its rates. Likewise, if a utility overspends, its earned return will fall below its target return and it will be allowed to increase its rates.

[23] Pepco Response to DCG 9-24, attached hereto as Exhibit DCG (A)-4.

These rate increases or decreases are accomplished through periodic prudency reviews and reconciliations that ensure that revenues track prudently incurred costs. In this way, the MYPs in Maryland and the District bear close similarities to formula rate plans, since revenues are adjusted to match the utility's costs.[24]

In contrast, most MYPs limit revenue adjustments (reconciliations) during the plan, as adjusting revenues to match costs erodes cost-containment incentives. Instead, MYPs establish a pre-set revenue adjustment mechanism and require utilities to live within those pre-set revenues. If utilities overspend their allowed revenues during the plan, they do not recover those costs. Conversely, if utilities find cost efficiencies during the plan, they retain all or a portion of those costs savings until the following rate case.

Table 2 below shows results from a 2018 survey by the Brattle Group regarding reconciliations occurring in formula rate plans and MYPs. As shown in this table, reconciliations for overspending the revenue requirement (and under earning) are virtually unheard of in an MYP, but such reconciliations are common in a formula rate plan.

[24] Excluding carrying costs for overspend.

Table 2. Reconciliations in Formula Rate Plans and MYPs[25]

State	Utility	Alternative Regulation Type	ROE Reconciliation	
			Over Earning	Under Earning
AR	Entergy	Formula Rate Plan	X	X
IL	ComEd	Formula Rate Plan	X	X
LA	SWEPCo	Formula Rate Plan	X	X
FL	FPL	MYP	X	
HI	HECO	MYP	X	
NH	PSNH	MYP	X	
NY	ConEd	MYP	X	
ND	NSP	MYP	X	
WA	PSE	MYP	X	

Q Is it ever appropriate for a reconciliation mechanism to be included in an MYP?

A Yes, there are two cases when it can be appropriate for MYPs to include a reconciliation mechanism. First, if the revenue requirement is based on cost forecasts, then a one-way downward reconciliation mechanism should be implemented to reduce the risk to customers that the utility has inflated its cost forecasts. Second, a limited bi-directional reconciliation mechanism can be appropriate for certain large, unusual investments, such as part of a grid modernization plan, recurring pass-through or mandated costs, or extraordinary costs that are largely outside of the utility's control.

Q Why is it important that a reconciliation mechanism be downward-only when revenue requirements are based on utility cost forecasts?

A It is important that any reconciliation mechanism for cost forecasts be downward-only so that a utility is not rewarded for overspending. Although a downward reconciliation does not reward the Company for reducing its costs below its allowed revenue requirement, it does protect customers from excessive overspending by the utility, or the utility failing to

[25] The Brattle Group, "Exploring the Use of Alternative Regulatory Mechanisms to Establish New Base Rates," Joint Utilities' of Maryland Initial Comments, Maryland PC51, March 2019, pg. 18, Table 6.

implement its forecasted investments. This is because a downward-only reconciliation mechanism does not allow the utility to profit from under-investment and ensures that overspend is not considered until a subsequent rate case when rates are reset.

Q If an MYP includes a revenue requirement forecast based on an external index similar to the Modified EMRP, what type of annual reconciliation process do you recommend?

A If revenue forecasts are based on an external index, I do not recommend any reconciliation of revenues and costs during the course of the MYP or at the end of the MYP (with the exception of an earnings sharing mechanism if earnings exceed a certain threshold). As indicated above, reconciliation mechanisms reduce incentives for cost efficiencies over the MYP term. For an MYP to provide the desired benefits of cost-containment, rates should instead be reset with a new test year at the close of the MYP.

Q Does the Company's proposal provide greater cost-containment incentives than cost-of-service regulation?

A No. Under cost-of-service regulation, base rates are set based on a test year and then held fixed until the utility files a subsequent rate case. In this way rates are not trued up to actual costs between rate cases. Because rates (and revenues) are not adjusted to match costs, the utility has an inherent incentive to control costs between rate cases. This is referred to as "regulatory lag," which is defined as "the time period between the moment when a utility's cost changes and the moment when there is a commensurate change in its rates."[26]

[26] MN Lowry, J Deason, M Makos, L Schwartz, *State Performance-Based Regulation Using Multiyear Rate Plans for U.S. Electric Utilities* (U.S. Department of Energy), July 2017, at 3.2.

Assuming that sales remain the same each year, the utility can increase profits by reducing costs between rate cases since the utility generally keeps any difference between revenues and costs. On the other hand, if costs increase, the utility's profits will decline until the higher costs are reflected in rates in a subsequent rate case. This provides an incentive for the utility to control costs. However, the ability for the utility to file a rate case at any time dampens the cost-containment incentive to some extent. The stay-out period in an MYP can strengthen this cost-containment incentive, but only if revenues are not adjusted to match costs through a reconciliation process.

Q Does the reconciliation process, combined with the Company's proposal to base its allowed revenues on a cost forecast, shift risks to customers?

A Yes. The combination of the reconciliation process and the use of cost forecasts creates an outcome where there is little risk to the utility and significant risk to customers. The proposed MYP reduces risk to Pepco by providing guaranteed revenue increases over the three-year period that are designed to meet its Company-specific cost forecast. However, as discussed above, the Company has an incentive to inflate its cost forecast to ensure it has adequate revenues (as it would not earn a return on any overspend). If regulators and stakeholders had perfect information, any inflated forecasts could be identified during the rate case. However, regulators and stakeholders do not have perfect information (in terms of data availability, models, or knowledge of the level of effort expended by utility management), nor do regulators or stakeholders have the same level of resources (e.g., engineers) as the utility. Thus, it is extremely difficult to ensure that Pepco's cost forecasts are accurate, which places customers at risk that the allowed MYP revenues will be set too high. There is little benefit to customers in return for this increased risk. While

rate increases will be known over the MYP term, there is little incentive for the Company to control costs; and should Pepco overspend, it will only lose out on carrying costs while continuing to add to its rate base because of the reconciliation mechanism.

The MYP Should Not Be Approved Without PIMs

Q Did the Commission approve any PIMs as part of Pepco's Modified EMRP?

A No. The Commission determined it was premature to adopt PIMs in the Modified EMRP. The Commission instead adopted a set of Tracking PIMs to help inform and identify how to measure PIMs and how to structure their financial rewards or penalties.

The Tracking PIMs approved by the Commission included a GHG reduction metric measuring GHG emissions related to Pepco-owned buildings in the District of Columbia as well as the Company's vehicle fleet. The GHG tracking PIM also provides GHG emissions estimates related to Standard Offer Service (SOS) and non-SOS energy consumption, as well as sulfur hexafluoride (SF6) emissions from Pepco's operational equipment and estimates of GHG emissions related to the Company's contractor vehicles.[27]

The Commission directed that the Tracking PIMs continue for the duration of the Modified EMRP, with the opportunity during the start of the final year to solicit input and proposals from the Company and the stakeholders. The Commission also noted that it expected that the Tracking PIMs "could be readily converted to fully functioning PIMs

[27] Pepco Response to DCG 1-8, attached hereto as Exhibit DCG (A)-5.

with incentive and penalty mechanisms — subject to Commission approval during 2022 and beyond."[28]

Q Does Pepco propose to convert any of the Tracking PIMs into PIMs with an associated financial reward or penalty as part of the MYP?

A No. The Company states that its PIM proposals are being addressed in the PIMs working group process and not in this MYP.[29]

Q What has the Commission stated regarding PIMs and MYPs?

A The Commission has clearly and repeatedly expressed its desire to see PIMs implemented in the District of Columbia. In the Commission's Order on Alternative Forms of Ratemaking (AFOR), the Commission stated that any adopted MYP should be accompanied by PIMs.[30] In its Order approving the Modified EMRP, the Commission also stated that "properly designed PIMs represent an important tool to align utility incentives with public policy goals, such as the District's aggressive clean energy and environmental goals."[31] A key rationale for adopting AFOR is its ability to strengthen utility incentives to control costs while providing for increased operational flexibility to allow for innovative utility investments that better align with a jurisdiction's policy goals. However, as I will explain in more detail in the next section of my testimony, Pepco's MYP is not sufficiently aligned with the climate goals of the District and is more akin to a business-as-usual capital investment plan. Without PIMs this misalignment will persist

[28] Order No. 20755, ¶ 172.
[29] Pepco Response to DCG 3-6(b), attached hereto as Exhibit DCG (A)-6.
[30] Order No. 20273, ¶ 104.
[31] Order No. 20755, ¶ 165.

because PIMs can provide a measure of assurance that Pepco's investments are in the public interest and are aligning with the climate goals of the District.

Q Can PIMs be adopted after the conclusion of the instant proceeding?

A Yes, but it is preferable to adopt PIMs in conjunction with the rest of the regulatory framework (such as an MYP), so that the incentives offered by each can be designed to be complementary and to avoid redundancy.

Q Please explain how PIMs should be designed to complement the rest of the regulatory framework.

A By providing a financial reward or penalty, a PIM creates new incentives for a utility. It is important that these incentives be set with consideration of the incentives provided by the rest of the regulatory framework (such as the MYP) to set the financial incentives appropriately and avoid duplication of incentives. For example, under Pepco's proposed MYP, the Company would quickly recover costs associated with reliability investments (including a return) as part of its capital plan, thereby providing a strong incentive for the utility to spend ratepayer funds to enhance reliability. It would therefore be a mistake to then create a PIM that rewards Pepco for achieving higher levels of reliability because it would duplicate the Company's existing incentives. This creates a risk of overcompensating the Company for investments it would have made regardless of the existence of the PIM. In addition, PIMs are necessary to track whether the investments contained within the MYP are aligned with and advancing the District's climate and energy goals.

Q What is your recommendation for a PIM that should be adopted in the instant proceeding?

A I propose an NWA PIM to support the desired outcome of increased investment in cost-effective NWAs. The PIM would reward Pepco for each cost-effective NWA implemented in its District of Columbia service territory based on the present value of the net benefits from implementing NWAs procured through an open-sourced request for proposals (RFP) in which the solution type has not been pre-selected.

The PIM will encourage Pepco to proactively identify all NWA opportunities, seek the least-cost NWA solution regardless of whether it is a capital investment, and be rewarded for maximizing ratepayer savings.

Q Does Pepco have a financial disincentive to invest in NWAs?

Yes. Under the current regulatory model, the Company is incentivized to prefer capital investments over operational expenditures as a means to grow its rate base and thereby profits. In fact, the incentive to undertake more capital investments is strengthened in the MYP by the reduction of regulatory lag, which allows the Company to recover its costs more quickly. This means that Pepco has a strong financial incentive to meet a distribution system need with the installation of new substations, transformers, feeders, or utility-owned battery systems, on which it would earn a return, rather than a third-party NWA solution that would be classified as an operational expense with no return.

Q Why is an NWA PIM needed?

The financial incentives in the existing regulatory framework are insufficient to encourage Pepco to identify and seek out third-party NWA solutions. Within the MYP,

Pepco only identifies two battery storage projects as non-wires solutions, both of which are based on utility-owned capital assets. A utility-owned battery system was selected to defer the need for a new substation serving projects ITN 62900 and 62935 - Pepco Alabama Ave,[32] and a battery system was selected for project ITN 67364 – Pepco Mt. Vernon, to address projected firm capacity load.[33] Only one RFP for a third-party NWA solution was issued as part of its Distribution System Planning (DSP)/NWA process (ITN: 74085 - Waterfront Sub) and no NWA solution was selected.[34]

Q If Pepco already issues RFPs for NWAs, why is an NWA PIM needed?

A As discussed above, Pepco does not have a financial incentive to implement NWAs and appears to be undervaluing third-party NWAs. For example, while the Company did not provide details regarding why the third-party NWA solution wasn't selected, it is clear its screening process does not consider the full benefits of NWA solutions. Pepco does not account for the monetized value of avoided carbon emissions or consider the locational value of DERs on the distribution system when reviewing NWAs.[35] If Pepco is not monetizing the full benefits of an NWA solution, it is not surprising that NWA solutions were not selected.

[32] Pepco (H)-2, at 2-3.
[33] *Id*., at. 9.
[34] Pepco Response to DCG 5-24(b), attached hereto as Exhibit DCG (A)-7.
[35] Pepco Response to DCG 5-24(f)(g), attached hereto as Exhibit DCG (A)-7.

Q Why is it appropriate for the Commission to approve this PIM in light of the ongoing PIMs working group?

A An NWA PIM does not need to rely on historical baseline data to determine appropriate targets and incentive levels; instead, the NWA PIM would be based on a shared savings approach.

Q Please explain how your proposed NWA PIM would function.

A I recommend a shared-savings mechanism to support NWA solutions. The shared-savings-based incentive would allow Pepco to retain a portion of the difference between the present value of the traditional wires solution and the NWA. For example, Pepco could be allowed to retain 30 percent of the savings, i.e., the net benefits, relative to the traditional solution. This provides an incentive to the Company while allowing ratepayers to retain the majority of the savings from the NWA. One important advantage of providing the utility with a portion of the net benefits—the difference between costs and benefits—is that it incentivizes the Company to both reduce costs and increase benefits.

To qualify for this incentive, Pepco must demonstrate that the NWA is cost-effective, using a BCA that accounts for all societal costs and benefits in alignment with Commission Order No. 21938, including but not limited to, GHG emissions and air quality impacts, to appropriately value the role of DERs as NWA solutions. The least cost solution to identified system needs should give equal consideration to NWAs procured through open-sourced solicitations to third-parties and through Company specific actions, including the targeted deployment of demand response, energy efficiency, and time varying rates.

Q Should the Commission approve Pepco's proposed MYP, how would an NWA PIM improve outcomes?

A An NWA PIM would provide an incentive to the Company to seek cost-effective NWA solutions that are not owned and operated by the Company. The PIM would help overcome the existing financial disincentive for Pepco to use third-party or customer-facing DER solutions to meet a utility system need. Cost-effective third-party PIMs have the potential to reduce the need for new distribution expenditures thereby significantly reducing costs to customers.

V. PEPCO'S MYP IS A BUSINESS-AS-USUAL CAPITAL PLAN MASQUERADING AS A "CLIMATE READY PATHWAY"

Q Should an MYP support innovation and achievement of the District's policy goals?

A Yes. In return for receiving more timely, predictable revenue increases over the MYP period, Pepco should demonstrate that it is making investments to support the District's policy goals that it would not have otherwise completed under cost of service regulation.

A rationale for the adoption of an MYP is that cost-of-service regulation is backward looking and can impede a utility's efforts to innovate. There are also concerns that revenues would be insufficient to support these new investments. An MYP addresses these issues by providing known increases in revenues over the MYP period.

As I will explain in more detail below, I do not find that Pepco's proposed MYP adequately supports investments to facilitate the District's climate and clean energy goals and instead represents a business-as-usual capital plan.

Pepco's "Climate Ready Grid" Represents Traditional Reliability Investments

Q Does Pepco justify its MYP based on its contribution to the District's and the Commission's climate and clean energy goals?

A Yes. In fact, the Company refers to its MYP as a "Climate Ready Pathway" that includes a series of "Climate Ready Grid" investments to provide "safe, affordable, reliable, and equitable advancement of climate and clean energy goals through investments in the tools, processes, and infrastructure to control the distribution system."[36] The Company states that its capital investment strategy during the MYP period focuses on supporting a pathway to a climate ready grid through, amongst other things, improving grid resiliency.[37]

Q How does Pepco define the Climate Ready Grid?

A The Company defines the Climate Ready Grid as a "series of investments in infrastructure and processes that advance system-readiness and will support customers through the current energy transformation."[38] Specifically, the Company states that the District's climate policy requires a significant shift to electrification, and Climate Ready Grid investments are needed to support reliability and resiliency, which is increasingly important as customers rely on electrification for transportation, heating, and cooling.[39]

[36] O'Donnell Direct Testimony, PEPCO (A), pg. 5, lines 5-16.
[37] Pepco Response to AOBA 1-9(b), attached hereto as Exhibit DCG (A)-8.
[38] Pepco Response to DCG 1-9(d), attached hereto as Exhibit DCG (A)-9.
[39] Direct Testimony of Jaclyn Cantler, Pepco (H), at 6, lines 16-22.

Q Does Pepco provide a list of the Climate Ready Grid investments included in the MYP?

A No. The Company does not identify specific investments as being part of the Climate Ready Grid. When asked to identify the projects in Pepco's Distribution Construction Program Report, included as Exhibit Pepco (H)-1, the Company did not provide a list. Instead, Pepco states that its capital investment strategy during this MYP period "focuses on supporting a pathway to a climate ready grid through, amongst other things, improving grid resiliency."[40]

Q How does Pepco propose to improve grid resiliency?

A It is not clear. Pepco states that "Witness Cantler's testimony and attachments primarily cover reliability investments to maintain Pepco's distribution grid or the platform for the Climate Ready Grid."[41] The Company's plan to improve resiliency to address the impacts of "climate realities" includes the replacement of aging and/or obsolete infrastructure and routinely and timely performing corrective maintenance work where necessary.[42] But these are activities that are core to the traditional duties of the electric distribution company. Pepco has not adequately explained why undertaking these traditional goals would justify an MYP.

Q Does Pepco propose that costs associated with the Climate Ready Grid be recovered through the MYP framework?

A It is unclear what portion of this undefined Climate Ready Grid is supported through MYP investments versus other proceedings. As the Company notes, there are other

[40] Pepco Response to OPC 4-6(b), attached hereto as Exhibits DCG (A)-10.
[41] Pepco Response to DCG 7-22(a), attached hereto as Exhibit DCG (A)-11.
[42] *See* Exhibit DCG (A)-8, originally Pepco's Response to AOBA 1-9(b).

proceedings that support the Climate Ready Grid, including FC Nos. 1167, 1130, and 1160.[43]

Q What are the expected benefits from the Climate Ready Grid investments?

A The expected benefits from investments associated with the Climate Ready Grid appear to be the same as those that would result from traditional utility investments that have historically been sufficiently supported through cost-of-service regulation. Specifically, Pepco states that the anticipated benefits include "providing customers with a safe, affordable, and reliable energy system."[44] While these are important goals, they do not differ from Pepco's historical mandate.

Q How will the Company measure the benefits associated with its Climate Ready Grid investments?

A Pepco states that it has not developed any metrics to track the benefits of the deployment of the Climate Ready Grid,[45] but that reliability is an integral component and can be measured by well-established metrics within the utility industry.[46]

Q In your view, has Pepco provided sufficient information to evaluate the costs and benefits of the Climate Ready Grid?

A No. Pepco has not identified which investments are part of its Climate Ready Grid or what associated costs it would recover through the MYP, nor has it identified quantifiable metrics to measure the benefits associated with these investments. This lack of transparency is counter to one of the purported goals of the Commission's AFOR

[43] Exhibit DCG (A)-9, at 1-9(d).
[44] *Id.*, at 1-9(e).
[45] *Id.*, at 1-9(f).
[46] *Id.*, at 1-9(b).

framework, which is to "provide[s] an appropriate level of transparency and reporting into the utility's operational and capital plans."[47]

Q How much of the MYP capital plan pertains to investments that will directly support the District's (and Commission's) clean energy and climate goals?

A Despite the Company's claim that the MYP "is a critical pathway to support and advance the District's goals and policies on clean energy and climate,"[48] only 3.6 percent of the $1.4 billion in total planned capital investments over the MYP term (2024-2026) directly supports the Company's Climate Solutions Plan (CSP), based on data provided in discovery.[49] This is a clear indication that the Company's MYP is much more akin to a business-as-usual capital plan than a "Climate Ready Pathway".

Q What investments directly support the Company's Climate Solutions Plan?

A Though not included in its MYP filing, in response to discovery, Pepco provided a list of 13 projects included in the MYP that directly support its Climate Solutions Plan (CSP) 5-Year Action Plan and two additional investments that support the integration of DERs. The cost of these capital investments represents only $51.7 million of the $1.4 billion that Pepco has planned. I summarize these projects based on the type of investment (i.e., capital versus expense) in Table 3 below.

[47] Formal Case 1156, Order No. 20273 at ¶6 (December 20, 2019).
[48] O'Donnell Direct Testimony, PEPCO (A), at 6.
[49] It was not possible to combine capital investments with ratemaking adjustments (RMA) for a total MYP budget comparison given the manner in which the RMAs were presented.

Table 3. Proposed CSP 5-Year Action Plan Investments Included in MYP[50]

MYP Project Name	CSP Program
Capital Investments	
Congress Heights Battery Demonstration (confirm known as Alabama Ave in H-2)	Congress Heights Battery Demonstration Project
Mt Vernon BESS IT	Mt. Vernon Substation Battery NWS Demonstration Program
EU ADMS Convergence - Stage 2 Pepco	ADMS
EU Outage Reporting and Analytics Implementation (Pepco)	ADMS
EU Outage Reporting and Analytics ADMS Integration (Pepco)	ADMS
Advanced Distribution Management System Implementation (Pepco)	ADMS
Pepco – Network RMS – Line	Supports DER Integration
Pepco – Network RMS – Telecom	Supports DER Integration
Ratemaking Adjustment 16	
Community Bill Presentment (changes) and Reporting (Interconnection Related)	Community Solar Automation Program
Community Solar Automation - Integration with SAP - ALL PHI (Interconnection related)	Community Solar Automation Program
HB818 Utility Consolidated Billing Community Solar	Community Solar Automation Program
Ratemaking Adjustment 19	
Interconnection Design and Process Streamlining Program	Interconnection Design and Process Streamlining
Other Expense	
Residential TOU implementation	Residential Electric Vehicle Charging Time-of-Use Rate Program
Advanced DER Analytics	Advanced DER Analytics Program
Planning and Forecasting System	Planning and Forecasting System Program

Q Are there additional investments that the MYP should include to support the District's and the Commission's climate and clean energy goals?

A Yes. The Company should include additional investments to address ongoing issues with the DER interconnection process and support data transparency and advanced metering infrastructure.

Q Please describe the need for improvement to the DER interconnection process.

A While Pepco's MYP includes proposals to improve interconnection through integrating the online interconnection portal with the billing system and by expanding the Grid Power Connection (GPC) team, that supports the customer application process,[51] more should be done. For example, the Chesapeake Solar and Storage Association (CHESSA) has repeatedly filed comments in FC 1050 highlighting pervasive interconnection delays for large solar projects and changes to the residential interconnection requirements that increase costs.[52]

In addition, DOEE has identified issues with the solar interconnection process for both residential rooftop solar installations and Community Renewable Energy Facilities (CREFs) including: (1) delays in Pepco issuing Authorizations to Operate and to Interconnect; (2) unexpected fees; (3) lack of cost transparency for purportedly necessary distribution system upgrades; and (4) lack of a predictable, consistent interconnection process.[53] However, Pepco's MYP does not address these interconnection concerns.[54]

[50] See Exhibit DCG (A)-11 (Pepco Response to DCG 7-22(a)). *See also*, Pepco's Updated Response to DCG 7-22(a) (filed on Oct. 6, 2023), attached hereto as Exhibit DCG (A)-12 and Pepco Response to DCG 9-2, attached hereto as Exhibits DCG (A)-13.

[51] Direct Testimony of Morlon D. Bell-Izzard, PEPCO (J), at 21-22.

[52] Comments of the Chesapeake Solar and Storage Association (CHESSA), FC 1050, February 2, 2023.

[53] District of Columbia Department of Energy and Environment Energy Administration (DOEE), *Comments in Response to Petition of Potomac Electric Power Company to Approve a Tariff Change for 20 kW and Below Residential NEM Solar Interconnections*, FC 1050, May 1, 2023, at 2.

[54] Response to DCG 3-14, attached hereto as Exhibit DCG (A)-14.

Q What investments should Pepco consider to address these interconnection issues?

A An area ripe for improvement is Pepco's hosting capacity map. This is a critical resource for facilitating DER development, but Pepco does not appear to be adequately funding it or pursuing improvements to it.

Q What benefits do hosting capacity maps provide?

A Hosting capacity maps can facilitate market-driven DER deployment by providing developers with an early indication of where DERs can provide the greatest value within Pepco's service territory and can help avoid the possibility of developers having to pay high system upgrade costs to interconnect DERs.

There are three primary use cases for hosting capacity maps and analysis:

1) to support market-driven DER deployment by enabling developers to identify technically suitable and potentially lower-cost interconnection locations;

2) to assist with streamlining DER interconnections by improving or automating parts of the technical screening process; and

3) to enable more robust, long-term distribution system planning, providing visibility into how much DER the grid can host in future years, by identifying potential system constraints and proactive upgrades.[55]

[55] Liburd, S., et al. (2021), *Hosting Capacity Analysis and Distribution Grid Data Security*, prepared for Minnesota Department of Commerce by Synapse Energy Economics, Inc, at ii.

Q Does Pepco's proposed MYP support the hosting capacity maps?

A No. While Pepco includes a DER Hosting Capacity Maps Program within its CSP 5-Year Action Plan, it does not include any costs associated with this program in the MYP, and only indicates it will continue to evaluate funding this program in future years.[56] Similarly, Pepco states it is planning to incorporate new capabilities, such as advanced inverter functionalities (e.g. Volt-VAR control) to support dynamic hosting capacity, but does not provide an anticipated timeline.[57] Pepco also states that hosting capacity was not used in its load forecasts because it has not established a proactive investment program for Hosting Capacity Improvement at this time.[58]

Pepco should accelerate these investments and include a clear timeline for deployment as part of an overall grid modernization plan and allow for data sharing with DER providers to enable the deployment of DERs based on the needs of the distribution system. DOEE is currently conducting a hosting capacity analysis, following the direction of the Council's Committee on Transportation & the Environment.[59] The results of the study will be public this calendar year, however it will not address the long-term need for Pepco to improve hosting capacity maps.

[56] Pepco Response to DCG 7-32(b), attached hereto as Exhibit DCG (A)-15.
[57] Pepco Response to OPC 6-4, attached hereto as Exhibit DCG (A)-16.
[58] Pepco Response to DCG 7-33(a)(b), attached hereto as Exhibit DCG (A)-17.
[59] Council of the District of Columbia, Committee on Transportation & the Environment, Fiscal Year 2023 Committee Budget Report, pg 87

Q Should Pepco's MYP support increased data transparency and utilization of advanced metering infrastructure?

A Yes. Pepco has invested millions in advanced metering infrastructure (AMI) but has failed to unlock the full benefits that these meters can provide to its customers. It is far too common for utilities to underutilize AMI. For example, a recent study by the American Council for an Energy-Efficient Economy (ACEEE) found that only one of the 52 utilities surveyed was optimizing its AMI to create energy savings opportunities for customers.[60]

It is important to recognize that AMI on its own does not provide sufficient energy savings benefits to customers. The actual benefits of AMI realized by customers are directly related to the types of programs provided by utilities and the design of those programs. Customers need sufficient education, price signals, tools, and ease-of-use applications to take advantage of AMI. These offerings can include time-varying rates, load disaggregation, behavioral-based programs with real-time feedback, grid-interactive efficient buildings, Home Area Network (HAN) applications, and Green Button Connect My Data (CMD).

While Pepco has made progress in utilizing AMI in its Energy Wise Rewards program and has proposed a time-of-use rate, more is needed. I recommend that Pepco implement full functionality of Green Button CMD including the ability for customers to authorize automatic data transfers with third parties and implement HAN. Customers are paying for

[60] Gold, R., Waters, C., York, D. 2020. Leveraging Advanced Metering Infrastructure to Save Energy. American Council for an Energy-Efficiency Economy (ACEEE).

AMI and should have ownership and control over their energy data, including the ability to share interval energy usage data and other AMI-related data fields with chosen authorized entities. Pepco should therefore enable the full range of energy data fields within Green Button to ensure that third parties have sufficient information to provide energy management services to customers and to help support greater grid reliability, resiliency, and decarbonization.

The Climate Ready Grid Exaggerates The Impacts Of Electrification

Q Is the Company's MYP capital plan based on a load forecast that includes electrification?

A No. When asked to provide the Company's forecast of the anticipated growth in electrification, Pepco indicates that it does not directly include electrification in its 10-year capacity/load forecasts. In addition, Pepco does not include forecasts for conversions of gas heating to electric heating.[61]

Q Why is this problematic?

A The Company is asking the Commission to approve a revenue requirement for the MYP term that is based on the need to create a Climate Ready Grid to prepare for the "significant shift to electrification" without considering actual electrification forecasts or conducting an analysis to determine whether additional distribution investments are actually needed to support forecasted increases in electrification.

[61] Pepco Response to AOBA 1-11(a)(c), attached hereto as Exhibit DCG (A)-18.

Q Is there an analysis that Pepco could use to determine whether distribution investments are needed to support growth in electrification?

A Yes. In FC 1167, DOEE filed "The Strategic Electrification Roadmap for Buildings and Transportation in the District of Columbia" (Electrification Roadmap).[62] The Electrification Roadmap analyzed the expected load increases and timing resulting from the additional energy efficiency and electrification measures needed to meet the Clean Energy DC Plan target for a 50 percent reduction in GHG emissions by 2032. The roadmap quantifies substation impacts for summer and winter peaks resulting from adding building electrification and electric vehicle (EV) charging.[63]

Q Does Pepco use the Electrification Road map to inform its electrification forecast?

A No, it does not.[64]

Q What are the main conclusions from the Electrification Roadmap?

A The Electrification Roadmap found that Pepco's system is well-equipped to handle the projected electrification loads from buildings and transportation up through the year 2032, stating that the combined electrification loads are not expected to exceed substation capacity in any zone within the District of Columbia.[65] The Electrification Roadmap also concludes that beyond 2032, electrification loads will continue to increase, highlighting the important role that energy efficiency and DERs can play in mitigating load impacts

[62] DOEE, *The Strategic Electrification Roadmap for Buildings and Transportation in the District of Columbia* (Electrification Roadmap), April 2023.
[63] *Id*., at 6.
[64] Pepco Response to DCG 5-26(b), attached hereto as Exhibit DCG (A)-19.
[65] DOEE Electrification Roadmap, at 85.

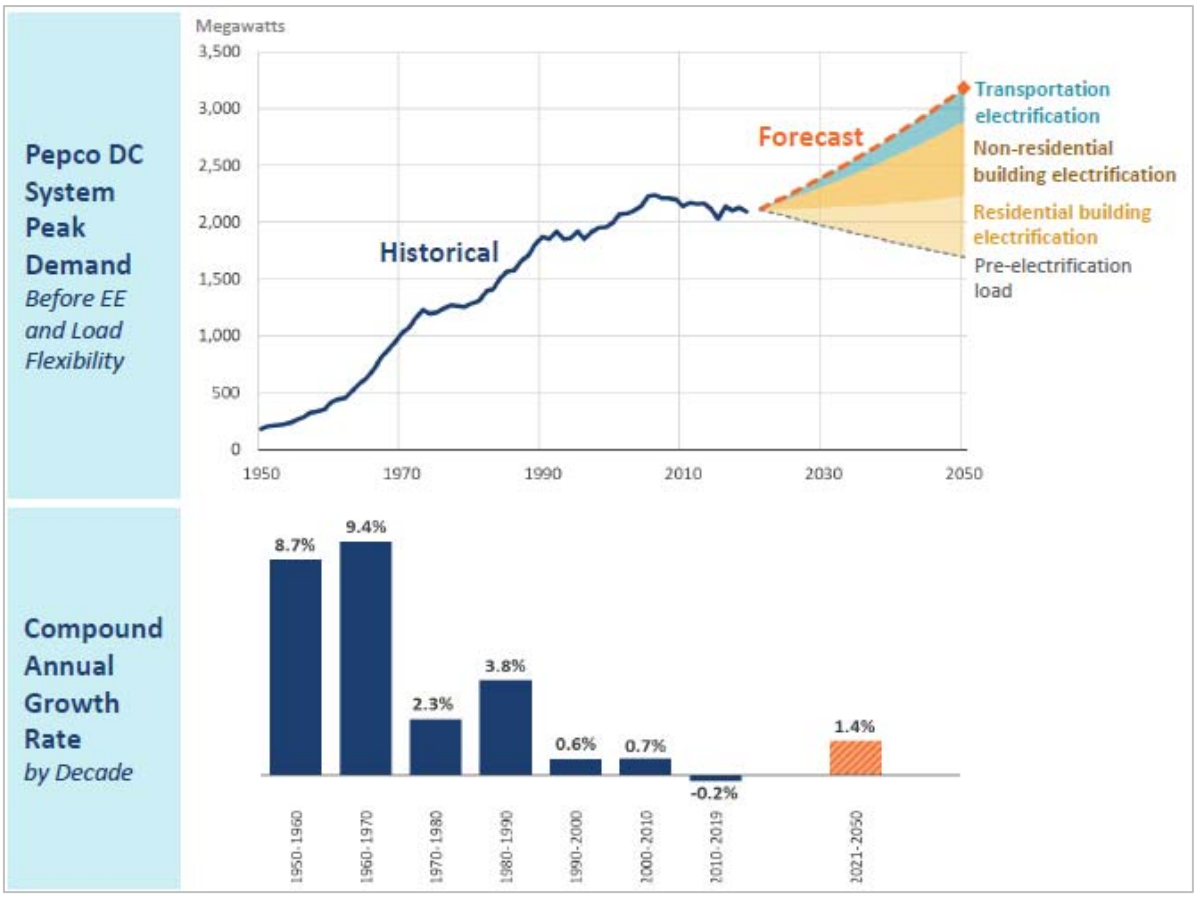
and recommends that such resources be integrated into the grid planning process to serve as solutions to grid constraints.[66]

Q Are there additional analyses that demonstrate that increased deployment of energy efficiency and load flexibility can mitigate the impacts of electrification?

A Yes. Pepco itself submitted an electrification study to the Commission in FC 1167 that provided an assessment of the impact of electrification on the Pepco DC system.[67] The study, prepared by The Brattle Group, found that future load growth due to electrification will remain within recent historical ranges and Pepco has been able to reliably manage such growth. The graphic below summarizes these findings.

[66] *Ibid*.
[67] Hledik, R., et al., (August 2021), *An Assessment of Electrification Impacts on the Pepco DC System*, prepared for Pepco by Brattle and filed in FC 1167 on August 27, 2021.

Figure 2. Forecast of Electrification on Pepco DC System Peak[68]



The study also noted that heating electrification is expected to shift the Pepco DC system peak to the winter season, which is currently lower than its summer peak demand, meaning that that the system can accommodate additional heating load before new capacity is needed.[69] In addition, similar to the Electrification Roadmap, Brattle determined that an achievable portfolio of energy efficiency and load flexibility measures

[68] *Id.*, at 3.
[69] *Id.*, at 22.

could mitigate load growth from electrification, noting such resources could reduce Pepco's future load growth rate to less than 1 percent per year.[70]

Q Is Pepco's MYP aligned with the conclusions and recommendations from these electrification studies?

A No. Pepco's vision of a Climate Ready Grid appears to be rooted in traditional distribution asset investments, rather than focusing on the strategies outlined in the electrification reports, such as increasing deployment of energy efficiency to manage overall load growth as well as demand-side management strategies and NWAs to target areas of the system that become constrained. Pepco's planning process does not adequately address these alternatives to traditional utility investments.

Q How should Pepco's planning process be modified to address alternatives to traditional investments?

A Pepco should evaluate the cost-effectiveness of alternatives to traditional distribution assets, and it should present those results as part of its plan. As noted by Brattle, a detailed distribution plan that includes location specific analyses of load growth and capacity needs on the distribution system *as well as the costs and benefits of various approaches to addressing that growth is needed*.[71] This is a critical missing piece from Pepco's Climate Ready Grid. The Company does not base its proposed investments on a comprehensive IDP that integrates DERs and adequately considers NWAs as means to

[70] *Id.*, at 4.
[71] *Ibid.*

provide the least cost solutions to ratepayers, while supporting a reliable and resilient electric system.

VI. THE MYP DOES NOT SUPPORT INCREASED DISTRIBUTION PLANNING TRANSPARENCY

Pepco's Grid Modernization Proposals Are Not Sufficiently Organized Or Transparent

Q Does Pepco include grid modernization projects in its MYP?

A Yes. Pepco's MYP contains several grid modernization projects, which include Enterprise Asset Management (EAM 2.0), Geographic Information System (GIS), and an Advanced Distribution Management System (ADMS).[72] Investments in automation for grid modernization are discussed elsewhere, in Pepco Exhibit (H)-1.[73]

Q Are there any additional investments in the MYP that can be categorized as grid modernization?

A Yes. However, it is difficult to discern the complete set of grid modernization investments proposed by Pepco because modernization is discussed by Pepco in a diffuse fashion, in numerous places throughout the Company's filing. For example, Witness O'Donnell refers to Pepco's Storm Hardening the District of Columbia Infrastructure for Resiliency (SHDCIR) program as supporting "the Commission's goal of modernizing the grid and enhancing infrastructure to withstand the impact of increasing climate-related storms."[74] In a discovery response, Witness Cantler indicated that the Company

[72] Cantler Direct Testimony, Pepco (H), at 44.
[73] Exhibit (H)-1, p. 37.
[74] O'Donnell Direct Testimony, PEPCO (A), at. 51.

"incorporates grid modernization efforts into our planned investments as normal course of business" and then refers to battery energy storage, 4kV conversions, and distribution automation as examples of investments to modernize the grid "to support electrification efforts and DER enablement."[75]

Q Do you support these investments?

A In general, I am supportive of Pepco's grid modernization investments. However, I have several concerns about Pepco's approach to presenting these investments in its MYP filing. Pepco's presentation of these investments lack transparency and clarity. Also, Pepco has omitted key information that is critical to evaluating its grid modernization plans.

Q In what ways does Pepco's proposal lack transparency and key information?

A Pepco does not explain how individual grid modernization components fit together, nor does Pepco comprehensively evaluate alternatives to its proposed plans. Further, Pepco does not clearly map its grid modernization investments to the District's climate goals and desired outcomes. In my view, the best fix for these informational deficiencies is requiring Pepco to provide a grid modernization plan including a BCA of its proposed grid modernization investments in conjunction with an IDP.

[75] Pepco Response to DCG 5-23, attached hereto as Exhibit DCG (A)-20.

Q Why do you say that Pepco's grid modernization investments are not sufficiently tied to the District's policy goals?

A The Company claims that its grid modernization investments will support the District's (and Commission's) energy policy goals -- especially the deployment of DERs -- but then fails to quantify the extent to which these investments will facilitate the achievement of these goals. In fact, the District's energy policy goals are largely ignored in Pepco's load forecasts. Because Pepco does not appear to be accounting for the impacts associated with meeting the District's energy policy goals, it is difficult to determine how Pepco's proposed investments are contributing to meeting those goals.

Q In what ways is Pepco not accounting for the impacts of meeting the District's energy policy goals?

A Pepco's load forecasts do not anticipate the level of electrification and DER adoption required to meet the District's energy policy goals. Specifically:

1) Pepco does not include electrification in its 10-year capacity and load forecasts,[76] and per Witness Cantler, "electrification has not been projected at levels that would be required to meet the District's anticipated goals for electrification."[77] Similarly, Pepco does not separately forecast EV charging load.[78]

2) Pepco does not separately forecast DERs, and to the extent that growth in DERs enter into its load forecasts, it is not clear that the forecast is consistent with

[76] *See* Exhibit DCG (A)-19 (Pepco Response to AOBA 1-11(a)).
[77] *Ibid.*
[78] Pepco Response to DCG 5-3, attached hereto as Exhibit DCG (A)-21. (In his Supplemental Testimony, Witness Cantler indicates that the Company will be incorporating additional vehicle electrification into the load forecast in the future. Cantler Supplemental, p. 5, lines 17-20.)

statutory requirements for solar growth. The Local Solar Expansion Amendment Act of 2022 increased the already ambitious targets for distributed solar in the District of Columbia, and so it is imperative that Pepco makes the necessary investments to enable the required interconnection of distributed solar.

Although the Company reports that its modernization efforts will enable deployment and interconnection of DER,[79] there is no clear assessment of how much DER interconnection will be facilitated through the Company's grid modernization investments. Pepco is not able to indicate how much additional hosting capacity for solar and other DER will be achieved as a result of its distribution construction plan.[80] More specifically, Pepco cannot indicate how much additional DER capacity will be supported as a result of its investment in the Remote Monitoring System (RMS),[81] nor has the Company quantified the DER benefits of DERMS.[82] Pepco has stated for the record in the PIMs working group that "solar is a good way to reduce peak demand." If Pepco is able to identify a peak demand reduction benefit from the deployment of DERs like solar, it should be able to more fully quantify the infrastructure and cost savings potential for DERs in its MYP.[83] While I support these investments in principle, Pepco should provide estimates of the benefits that can be expected from RMS and DERMS, and it should use load forecasts that are consistent with meeting the District's energy policy goals to

[79] Cantler Direct Testimony, Pepco (H), at 7.
[80] Pepco Response to DCG 5-12, attached hereto as Exhibit DCG (A)-22.
[81] Pepco Response to DCG 3-8(c), attached hereto as Exhibit DCG (A)-23.
[82] Pepco Response to DCG 5-21(b), attached hereto as Exhibit DCG (A)-24.
[83] Formal Case No. 1156 (PIMS Working Group), July 13, 2023 meeting minutes, at pg. 2.

demonstrate these benefits and it should use load forecasts that are consistent with meeting the District's energy policy goals to demonstrate these benefits.

Pepco Should Provide A Grid Modernization Plan As Part Of An IDP

Q How should Pepco present its grid modernization plans?

A Pepco should provide a comprehensive grid modernization plan. This plan should include an account of Pepco's grid modernization actions to date, active proposals, and future plans in a detailed and transparent format. All planned investments should be included in this plan, including those investments already proposed in other proceedings. Further, Pepco should detail in this plan why its investments are the optimal ones to achieve relevant District policy objectives, detailing the specific benefits that are expected to arise for each of the planned investments.

Q Why is it important for Pepco's grid modernization plans to be presented clearly?

A This is not just a matter of semantics. Grid modernization is distinct from business-as-usual investment: investments in grid modernization are often elective, and the value proposition for grid modernization investment usually rests on meeting policy objectives that go beyond the provision of reliable and affordable service. Moreover, grid modernization technologies are complex and interdependent. Taking all of this into consideration, it is clear that regulators and stakeholders need a comprehensive picture of Pepco's grid modernization program to ensure that it is in the public interest and will advance the District's climate goals.

Q Will a grid modernization plan provide the Commission and intervening parties with greater transparency into grid modernization investments occurring across multiple proceedings?

A Yes. The complexity and cost of grid modernization investments often necessitate the staggering of these investment overtime and across proceedings. A comprehensive grid modernization plan can help to provide transparency on the interdependencies across investments and provide a more holistic view into the overall costs and benefits to the electric system and ratepayers.

Q Is it appropriate for the Company to incorporate grid modernization investments into distribution planning?

A Yes. Grid modernization planning and investment should not be siloed. In this spirit, I encourage the Commission to require Pepco to submit an IDP as part of this proceeding to ensure that Pepco's grid modernization planning is fully integrated with its wider distribution system planning.

Q How would the IDP relate to the grid modernization plan?

A I recommend that the grid modernization plan be provided as part of the IDP. This format would help to elucidate the relationship between modernization investments and the wider grid and would also help to ensure that the Company considers the full range of options to meet given needs.

Q Would providing an IDP and grid modernization plan facilitate stakeholder engagement?

A I believe that it would. Pepco argues that it requires an MYP to facilitate modernization of the grid and is necessary to achieve key District policy priorities.[84] However, the certainty in cost recovery that Pepco is seeking through the MYP must be accompanied by greater prospective scrutiny of the investments that would effectively be preapproved. The grid modernization plan and IDP that I recommend would help to clarify the extent of Pepco's modernization investments and, ideally, would help to better elucidate the justification for them.

Q Have any other jurisdictions implemented the informational requirements that you recommend?

A Yes. In Minnesota, the state's investor-owned utilities (IOUs) are required to prepare biennial IDPs that include 5-year "grid modernization action plans."[85]

Q Please describe the requirements for the IDP in Minnesota.

A The specific filing requirements for the four investor-owned utilities cover five topic areas: (a) baseline distribution system and financial data; (b) hosting capacity and interconnection requirements; (c) distributed energy resource scenario analysis; (d) long-term distribution system modernization and infrastructure investment plan; and (e) NWA (non-traditional) analysis.[86]

[84] O'Donnell Direct at 5-6.
[85] MN PUC. Docket No. E002/CI-18-251. Order on August 30, 2018. Docket No. E-017/CI-18-253. Docket No. E-017/CI-18-254. Docket No. E-017/CI-18-255. Order Adopting Integrated-Distribution-Plan Filing Requirements. February 20, 2019.
[86] Docket No. E-017/CI-18-253. Docket No. E-017/CI-18-254. Docket No. E-017/CI-18-255. Order Adopting Integrated-Distribution-Plan Filing Requirements. February 20, 2019.

Q Please describe the requirements for the grid modernization action plan in Minnesota.

A The IOUs are required to provide comprehensive information on grid modernization plans, including detail on plan objectives, timing, and costs and benefits, through a formal BCA. The action plans must document alternatives to proposed investments, detailing the technical and functional characteristics, along with the cost implications, of both proposed and alternative options. The plans must also describe interactions among grid modernization components and between these components and the wider grid. Finally, the plans must address communications, data, and interoperability considerations.[87]

Q What role should the Commission play in the integrated planning process?

A I recommend that the Commission establish filing requirements for the IDP and grid modernization plan, similar to what exists in Minnesota. When Pepco files its IDP in the future, the Commission should open a proceeding with scope for stakeholder participation. I defer to the Commission to set rules and procedures for any future IDP proceeding, and I expect that the Commission would also make explicit what the implications would be of any decision rendered in such a proceeding.

Q Should the Commission provide any other related guidance?

A Yes. I recommend that the Commission establish a BCA framework to ensure that Pepco's evaluation of investment benefits and costs is satisfactory. The impacts (i.e., cost and benefits) should be aligned with those included in the BCA framework to be

[87] Docket No. E-017/CI-18-253. Docket No. E-017/CI-18-254. Docket No. E-017/CI-18-255. Order Adopting Integrated-Distribution-Plan Filing Requirements. February 20, 2019.

developed in accordance with Commission Order No. 21938. This framework should also provide direction and even establish requirements related to the timeline, the treatment of alternatives, and other facets.

Q Have any other jurisdictions established BCA frameworks for grid modernization?

A While Minnesota does not have a framework per se, the Commission has set forth requirements for Xcel Energy to conduct a BCA of grid modernization investments. Through two Orders, issued in 2019 and 2020, the Commission has formalized its expectation for detailed information on both the technical and economic dimensions of grid modernization investments. Per the 2019 Order, for each grid modernization investment proposed, Xcel must describe, among other things, the "principles, objectives, capability, functionalities, and technologies enabled by [the] investment,"[88] and must detail "[i]nterrelation and interdependencies with other existing or future investments, including overlapping costs: scope, amount, timing" (sic).[89] Xcel is further required to provide a BCA for "each investment component with overlapping costs or benefits in isolation" and "each bundled components, as appropriate" (sic).[90] The Commission also established principles to guide the practice of a BCA.

[88] Docket No. E002/17-797. Order. September 27, 2019.
[89] *Ibid.*
[90] *Ibid.*

Q Please describe the BCA principles established by the Minnesota commission.

A The principles are enumerated below and indicate the standards to which investment analysis of grid modernization proposals should adhere. Per the Minnesota Commission, a properly formulated BCA for grid modernization should have:

- compared [the proposed investment] with traditional resources or technologies;
- clearly accounted for state regulatory and policy goals;
- accounted for all relevant costs and benefits, including those difficult to quantify;
- provided symmetry across relevant costs and benefits;
- applied a full life-cycle analysis;
- provided a sufficient incremental and forward-looking view;
- [be] transparent;
- avoided combining or conflating different costs and benefits;
- discuss[ed] customer equity issues, as needed;
- assessed bundles and portfolio where reasonable; and
- addressed locational and temporal values.[91]

Q Has the Commission in Minnesota established other provisions to promote customer interest in grid modernization?

A Yes. In its 2020 Order, the Commission set forth a series of requirements to enhance customer protection and benefits. It indicated that cost recovery for AMI and field area network (FAN) would be contingent on the utility "accomplishing Commission-approved

[91] *Ibid*.

metrics and performance evaluations"[92] and further compelled Xcel to provide with any future cost recovery requests for AMI or FAN, "a proposal for specific metrics and evaluation methods, and a detailed plan describing how the company will maximize the benefits of [grid modernization] investments for ratepayers."[93] In a subsequent proceeding, the Minnesota Commission initiated a process to develop PIMs to effectuate contingent cost recovery for AMI and FAN.[94] As far as I am aware, these PIMs are still in development.

Q Should the Commission introduce customer protections for grid modernization investments in the District of Columbia?

A Yes, the Commission should establish mechanisms to ensure that Pepco utilizes its grid modernization investments for maximum customer benefit. Unfortunately, it does not appear that Pepco is leveraging its past grid modernization investments to the fullest extent. For example, though the Company has installed AMI, it has not provided its customers with "easy and secure access to their energy usage information in a consumer-friendly and computer-friendly format."[95] The Commission should establish metrics and performance targets for grid modernization investments, and the Commission should also consider making cost recovery conditional on the Company taking all reasonable actions within its control to ensure that the benefits of grid modernization investments are

[92] Docket No. E002/19-66. Order. July 23, 2020.
[93] *Ibid*.
[94] Docket No. E002/21-814. Order. June 28, 2023.
[95] Pepco (H)-2 at 209.

realized. I note that projections of benefits and proposed performance tracking and reporting can be addressed through the recommended grid modernization plan.

VII. IT IS PREMATURE TO APPROVE A SECOND MYP

Evaluation Of The Modified EMRP Is Insufficient.

Q Please summarize the Commission's intended goals of AFOR.

A In Order No. 20273, the Commission established an AFOR framework as a means to protect consumers, ensure quality, availability and reliability of regulated services and ensuring that AFOR is in the public interest, including the interests of ratepayers and shareholders.[96] The Commission found that AFOR will provide the opportunity to explore new tools to further the District's ambitious clean energy goals and the Commission's PowerPath DC objectives, while also preserving a high standard of energy delivery system reliability and fostering grid modernization.[97]

Q Did the Commission adopt an evaluation plan or establish AFOR regulations?

A No. The Commission did not adopt a formal evaluation plan within its Order approving the Modified EMRP. In addition, AFOR regulations have yet to be developed.

It was not until after Pepco filed its second MYP in the instant proceeding that the Commission directed Pepco to file "supplemental testimony with accompanying exhibits that explain in quantitative and qualitative terms the benefits of, problems identified, and

[96] Formal Case 1156, Order No. 20273 at ¶1 (December 20, 2019).
[97] *Id*., at ¶¶ 5-6.

lessons learned from the Modified EMRP Pilot."[98] In this Order, the Commission specifically stated that it approved the Modified EMRP as a pilot, which is "an activity undertaken as an experiment to determine if something should be pursued more broadly."[99] The Commission stated the information contained in the supplemental testimony will support an assessment of lessons learned from the Modified EMRP and develop an evaluation framework in assessing Pepco's second MYP as proposed in FC 1176.[100]

Q Why is this problematic?

A As I will demonstrate below, relying on Pepco to provide a self-evaluation of its Modified EMRP without the directives from a formal evaluation framework does not provide sufficient information to assess whether the Modified EMRP successfully achieved the goals of AFOR, or is merely a litany of self-serving claims that cannot be verified.

Q Did Pepco identify the benefits that would result from its Modified EMRP?

A Yes. In FC 1156, the Company identified ten incremental benefits that the Modified EMRP would provide. The Company stated that its proposal would:

1) facilitate investments that support the District's energy policy goals;

[98] Formal Case 1176, Order No. 21886 at ¶1 (July 28, 2023).
[99] *Id*., at ¶23.
[100] *Id,* at ¶1.

2) provide customers, the Commission, and interested parties a longer-term view of future capital investments and O&M plans before the utility makes those investments;

3) provide customers with rate predictability over the MYP's term;

4) provide a decrease in the administrative burden and cost for the Commission and stakeholders by reducing the frequency of annual rate case filings;

5) protect customers and provide incentives to the Company to reduce costs and improve operational efficiency through the proposed Annual Reconciliation Filing;

6) align customer rates and reflect the current cost of providing service to customers;

7) increase the level of transparency and reporting to customers, the Commission, and stakeholders;

8) enhance Commission oversight through advance review of the Company's total capital investment plan and proposed performance levels, with annual reporting and reviews of certain variances to those approved plans over the term of the MYP and again at its conclusion;

9) provide for significant automatic financial penalties if the Company did not meet Commission-approved performance criteria; and

10) enhance certainty of spending for the MYP's term, leading to improved investment planning that would create jobs and promote economic development.[101]

Q Does Pepco claim its Modified EMRP achieved these goals?

A Yes. The Company states that the Modified EMRP "generally achieved the qualitative and quantified benefits."[102]

Q Do you agree with Pepco's assessment?

A There is not sufficient data to assess the merits of Pepco's self-evaluation. When asked to provide the "workpapers, data, analyses, assumptions, and studies" that Pepco relied upon to quantify each of the benefits achieved by the Modified EMRP, Pepco indicates it did not quantify the dollar value of each of the incremental benefits.[103] Furthermore, when asked if Pepco could provide any quantitative data to demonstrate that the Modified EMRP provided benefits to customers or achieved public policy goals, the Company indicated it did not perform that analysis.[104]

Without reporting metrics and quantitative data, it is difficult to assess whether the Modified EMRP resulted in sufficient benefits to ratepayers to outweigh the risks associated with information asymmetry and the reconciliation process and whether it incentivized cost-efficiencies compared to cost-of-service regulation. Given the limited data available, I summarize my assessment of the outcomes of the Modified EMRP as

[101] Supplemental Direct Testimony of Elizabeth Morgan Downs O'Donnell, PEPCO (2A), at 3-4.
[102] O'Donnell Supplemental Direct Testimony, PEPCO (2A), at 4, lines 5-9.
[103] Pepco Response to AOBA 10-2, attached hereto as Exhibit DCG (A)-25.
[104] Pepco Response to DCG 8-10, attached hereto as Exhibit DCG (A)-26.

compared to its goals in Table 4 below. I will further elaborate on the key outcomes in the section below.

Table 4. Summary of Modified EMRP Goals and Outcomes

Modified EMRP Goal	Outcome
1. Support the District's energy policy goals	Pepco does not track these investments in the EMRP and does not demonstrate that the investments that were made would not have occurred under cost-of-service regulation.
2. Provide longer-term capital and O&M investment plans before investment	Information asymmetry limits the usefulness of these plans. Further, the list of investments is not tied to an IDP and grid modernization plan, which would provide a full analysis of alternatives and important context for the investments.
3. Provide customers with rate predictability	Rate predictability is achieved through guaranteed increases to Pepco's revenue requirement, which primarily benefits Pepco by shortening the cost-recovery period of its investments and reducing the likelihood of cost disallowances.
4. Reduce administrative burden	Pepco does not provide a specific measurement of this benefit.[105]
5. Reduce costs and improve operational efficiency through Annual Reconciliation	Reconciliation of overspending shifts risk to ratepayers compared to cost-of-service regulation. Reconciliation of under-spending (i.e., returning cost savings to ratepayers) eviscerates the incentive to Pepco to reduce costs.
6. Align customer rates and reflect the current cost of providing service to customers	The reconciliation process does not guarantee that the costs embedded in rates are optimal. Further, it reduces the incentive to Pepco to control costs and find alternative solutions.
7. Increase the level of transparency and reporting	Data provided is of relatively little value without IDP and grid modernization plan.
8. Enhance Commission oversight through advance review of the	Without a long-term IDP and grid modernization plan, Pepco's investment

[105] Pepco Response to AOBA 7-10, attached hereto as Exhibit DCG (A)-27.

Company's total capital investment plan, with annual reporting and reviews of certain variances	plans provide little additional meaningful improvement to transparency.
9. Provide for significant automatic financial penalties if the Company did not meet Commission-approved performance criteria	PIMs with financial penalties were not adopted.
10. Enhance certainty of spending for the MYP's term, leading to improved investment planning that would create jobs and promote economic development.	This could be achieved through providing investment plans under cost of service regulation; it does not require an MYP. Pepco provides no evidence that the EMRP improved this outcome compared to cost of service regulation. This "benefit" could also be achieved through limited cost riders or trackers for specific types of investments (such as grid modernization).

Q Does Pepco claim that its Modified EMRP facilitated investments that support the District's energy policy goals?

A Yes. The Company states that the structure of the Modified EMRP allowed for the Company to invest at the pace required to meet the District's and the Commission's decarbonization and clean energy goals and support investments that are foundational to a climate ready grid, such as those that maintain reliability and resiliency.[106]

Q What investments did Pepco make since the approval of the Modified EMRP term that met the District's and the Commission's decarbonization and clean energy goals?

A The Company did not identify any investments that specifically support the District's energy policy goals. The Company states that it does not track capital investments by whether they meet a specific decarbonization and clean energy goal.[107] The Company

[106] O'Donnell Supplemental Direct Testimony, PEPCO (2A), at 4, lines 11-18.
[107] Pepco Response to AOBA 10-4(a), attached hereto as Exhibit DCG (A)-28.

also indicates that it cannot list the reliability and resiliency investments made during the Modified EMRP that directly support the District's energy policy goals.[108]

Q Is it problematic that the Company cannot identify capital investments that support decarbonization and clean energy goals?

A Yes. One of the primary justifications for implementing AFOR is to facilitate investments that support the District's energy policy goals. The Company even refers to its current MYP application as the "Climate Ready Pathway" that will continue to advance the District's decarbonization and clean energy goals. If the primary driver of the MYP is to support these policy goals the Company should be required to provide transparency on the investments made to support those goals.

Q Does Pepco provide any evidence that the Modified EMRP supported the District's clean energy goals?

A The Company claims that as a result of the Modified EMRP it was able to focus more on matters related to climate change initiatives. Specifically, Pepco filed three applications with the Commission during the Modified EMRP term (1) Pepco's Climate Solutions Plan Phase I (FC 1167), (2) Pepco's Energy Efficiency and Demand Response (FC 1160), and (3) a petition to modify Net Energy Metering.[109]

Q Would Pepco have been able to make these filings under cost-of-service regulation?

A The Company did not answer this question with a "yes" or "no" response.[110] However, it is common for utilities operating under traditional cost of service regulation to file similar

[108] Pepco Response to DCG 8-3(a-b), attached hereto as Exhibit DCG (A)-29.
[109] O'Donnell Supplemental Direct Testimony, PEPCO (2A), at 16-17.
[110] Pepco Response to DCG 9-22(a), attached hereto as Exhibit DCG (A)-30.

customer-facing applications. For instance, utilities, including Pepco, have been filing applications for energy efficiency programs since the 1980s, well before the introduction of MYPs. In addition, there are numerous examples of utilities filing applications for electric vehicle programs that do not operate under an AFOR framework.[111] I therefore do not consider an MYP to be a requirement for a utility to develop and file customer-facing programs.

Q Did Pepco claim that its Modified EMRP increased transparency?

A Yes. Pepco claims that the material it filed in support of its Modified EMRP in FC 1156 provided a longer-term, forward-looking view of the Company's proposed business plan and capital investments than would have been included with a traditional historic test year rate proceeding.[112] The Company also states that the Modified EMRP allowed for the Commission and parties to understand how Pepco's investments align with the District's and the Commission's goals.[113] Finally, Pepco states that the annual reconciliation filings provided the Commission and intervening parties with detailed variance reports between the actual cost of capital and O&M compared to what was budgeted.[114]

Q Do you agree that the Modified EMRP increased transparency?

A No. As indicated earlier in my testimony, information asymmetry makes it difficult for intervening parties and regulators to vet proposed utility investments and the accuracy of

[111] For example, utilities in New Jersey, Pennsylvania, Texas, and New Mexico have filed electric vehicle plans absent an MYP.
[112] O'Donnell Supplemental Direct Testimony, PEPCO (2A), at 5, lines 4-15.
[113] *Id.* at 6, lines 1-4.
[114] *Id*., at 6, lines 4-7.

cost forecasts. In addition, intervening parties have less staff resources to devote to this review and it is cost prohibitive to acquire outside expertise to conduct the necessary review of the annual reconciliation filings and variance reports to adequately vet the prudency of an investment. The fact that no parties conducted any discovery or filed any comments regarding Pepco's Final Reconciliation for the Modified EMRP implies the impracticality of this approach.[115]

Q Is an MYP required to provide increased transparency to the Commission and customers?

A No, it is not. Regardless of whether Pepco operates under an MYP or cost of service regulation it could file a comprehensive IDP and grid modernization plan.

Q Does Pepco claim rate predictability as a benefit of its Modified EMRP?

A Yes. The Company states that the Modified EMRP provided customers with rate predictability for years 2021, 2022, and 2023.[116]

Q Do predictable rates outweigh the flaws of the MYP?

A I do not find rate predictability to be a compelling enough benefit to outweigh the risks of approving a second MYP as designed. It is true that upon approval of the EMRP, the rate increases in each rate year were known to customers. However, this is no different than what occurs under traditional cost of service regulation. Once rates are finalized, they are set until the next rate case and therefore known by customers. In addition, under both an

[115] *Id.*, at 7, lines 16-18.
[116] *Id.*, at 6.

MYP and cost of service regulation, the rates for the next rate case are always unknown and may increase dramatically.

Q Did the Modified EMRP create cost efficiencies compared to cost-of-service regulation?

A While Pepco concludes that it was able to come within 1.9 percent of its overall O&M expenditure level projections, there is no counterfactual to compare these savings to what would have occurred under cost-of-service regulation.[117] In addition, Pepco does not provide any quantitative evidence that demonstrates cost efficiencies relative to its capital plan. The only information provided is that the Company was able to secure a lower cost of debt during the Modified EMRP that allowed for lower capital financing costs; however, it is not clear this result was attributable to the EMRP itself.[118] In short, it is impossible to know whether Pepco's self-evaluation of the Modified EMRP contained in its supplemental direct testimony is accurate because the information cannot be verified. However, one should be highly skeptical given Pepco's self-serving financial interest to conclude that the Modified EMRP was a success.

An MYP Evaluation Framework And Metrics Should Be Established

Q How should the Commission proceed with AFOR in light of the lack of quantifiable data on the performance of the Modified EMRP?

A I recommend that the Commission enact historical test year ratemaking until an evaluation framework is developed for how to track and assess the benefits of an MYP.

[117] Pepco Response to AOBA 10-15 and DCG 9-3(a), attached hereto as Exhibits DCG (A)-31 and DCG (A)-32, respectively.
[118] Pepco Response to DCG 3-12, attached hereto as Exhibit DCG (A)-33.

Q What should be included in an MYP evaluation framework?

A At a minimum the Commission should require Pepco to track quantifiable metrics related to the purported benefits of AFOR. These metrics could measure trends in costs over time, such as rate base (or net plant in service) per customer, administrative and general expenses per customer, distribution line maintenance costs per mile, and regulatory costs. Metrics could also track energy policy outcomes such as lowering interconnection costs, improvements to hosting capacity, and the number of NWAs approved and implemented. In addition, Pepco should be required to track its capital investments by whether the investment primarily pertains to grid modernization, reliability, resiliency, or support of climate goals.

VIII. PROPOSED MODIFICATIONS TO PEPCO'S PROPOSED MYP

Q Should the Commission determine a second MYP is justified, how should Pepco's proposal be amended?

A At a minimum, if the Commission does determine to go forward with Pepco's second MYP, I recommend that Pepco's proposal be amended in the following ways:

1. Apply an external index for business-as-usual costs: The revenue requirement from the historical test year should be escalated for each year of the MYP according to an inflation index, rather than being based on cost forecasts as occurred during the Modified EMRP term.

2. Cost forecasts should be limited to large and unusual investments that support the District's energy policy goals, if used at all: Allowed revenues for large, unusual costs (such as specific grid modernization investments with specified and measured

performance outcomes) would be set based on the utility's three-year cost forecast, as approved by the Commission. The cost forecasts should be thoroughly supported and justified and should clearly and transparently demonstrate how the investments are consistent with the utility's least-cost distribution system plan and a comprehensive grid modernization plan.

3. Require one-way (downward) reconciliations for costs based on a cost forecast, but no reconciliations for indexed costs.

4. Implement PIMs that clearly advance the District's clean energy goals such as NWAs.

5. Contain quantitative tracking metrics that can be used to evaluate the MYP at the end of the rate period.

IX. DISCUSSION OF PEPCO'S AFFORDABILITY PROGRAM CHANGES

Q Please summarize Pepco's proposal to increase enrollment in the Residential Aid Discount (RAD) and Arrearage Management (AMP) programs.

A Pepco proposes to increase outreach and marketing for the RAD program and allow any recipient of District assistance program to be counted as "categorically eligible" for the RAD program, meaning recipients would not have to separately income-qualify to be enrolled.[119] Pepco expects that these combined efforts will increase the number of residents enrolled in the RAD program. Pepco expects that AMP enrollment would

[119] Bell-Izzard Direct Testimony, PEPCO (J), at 30-31.

increase along with RAD enrollment because of the requirement to be enrolled in RAD to participate in AMP.[120]

Q Are there any issues with Pepco's proposal to increase RAD and AMP enrollment?

A Yes. Pepco fails to provide the necessary detail to assess the effectiveness of its proposed efforts to increase enrollment in these programs. While Pepco identifies some of the proposed costs related to increases in marketing and application processing, it does not provide the amount of expected enrollment changes, making it impossible to determine whether the costs represent a worthwhile investment. Furthermore, Pepco does not identify the specific methods it would employ to increase enrollment along with the expected take-up rate.[121]

The Company also fails to discuss the effectiveness of the proposed methods for enrolling customers or any of the challenges involved in enrolling residents in an income-targeted program. For instance, Donald Moynihan and Pamela Herd have found that prospective beneficiaries of income-limited programs face "costs" that must be overcome in order to ensure program enrollment.[122] Pepco also proposes to continue to rely on DOEE for income-qualification for the RAD program but has yet to coordinate with DOEE on how to handle increased enrollment and the increased workflow on DOEE that would be involved in processing more RAD applications for income qualification.

[120] *Id*., at 32.
[121] https://www.oxfordreference.com/display/10.1093/oi/authority.20110803101930484
[122] See discussion of "learning costs" "psychological costs" and "compliance costs" in Donald Moynihan, Pamela Herd, and Hope Harvey, "Administrative Burden: Learning, Psychological, and Compliance Costs in Citizen-State Interactions," *Journal of Public Administration Research and Theory* 25 (1) (2015): 43–69, available at https://doi.org/10.1093/jopart/muu009.

Finally, DOEE has already implemented "categorical eligibility" for its Solar for All program[123] and should be consulted on the appropriate way to implement such a change before the Commission acts on this proposal.

Q Do you have an alternative proposal for the Commission to consider?

A Yes. This rate case is not the proper forum to examine RAD enrollment issues since increasing enrollment is an issue across in utility assistance programs. If Pepco would like to make a categorical eligibility proposal, it should do so in the Formal Case No. 1125 docket that already exists and is dedicated to examining these issues. If the RAD tariff needs to be amended to accommodate any changes in the enrollment process, that can be accomplished outside of a rate case.

Q Does this conclude your direct testimony?

A Yes, it does.

[123] See: https://doee.dc.gov/sites/default/files/dc/sites/doee/service_content/attachments/Solar%20for%20All%20-%20Income%20Verification%20Guidance_5.10.23_update%281%29_0.docx