BEFORE THE
PUBLIC SERVICE COMMISSION OF MARYLAND

Potomac Electric Power Company's Application for Adjustments to its Retail Rates for the Distribution of Electric Energy	CASE NO. 9820

DIRECT TESTIMONY

OF

COLIN T. FITZHENRY

ON BEHALF OF THE OFFICE OF PEOPLE'S COUNSEL

JANUARY 30, 2026

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DIRECT TESTIMONY OF COLIN T. FITZHENRY

INTRODUCTION

Q. Please state your name and business address.

A. My name is Colin T. Fitzhenry, and my business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q. What is your occupation?

A. I am a consultant in the field of public utility regulation and a Principal of Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q. Please describe your educational background, qualifications, and professional experience.

A. This information is included in Appendix A to my testimony.

Q. Have you previously testified in regulatory proceedings on utility matters?

A. Yes. I have testified before regulatory commissions in the states of Georgia, Illinois, Indiana, Kansas, Maryland, Michigan, Nevada, New Mexico, Oregon, Utah, Wyoming, and the District of Columbia. Specifically in Maryland, I have testified in Case Nos. 9701, 9704, 9719, 9722, 9645, and 9754 before the Maryland Public Service Commission ("Commission").

Q. On whose behalf are you appearing?

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

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

A. The purpose of my testimony is to address Potomac Electric Power Company's ("Pepco" or "company") proposed capital expenditures for the Fully Forecasted Test Year ("FFTY"). I specifically address the prudency of the company's capital investments and the validity of the Quantitative Analysis of Pepco's Investments ("Brattle Study") prepared for Pepco by The Brattle Group.[1] My silence in this testimony, or that of my colleagues in their own testimonies, with regard to any issue should not be construed as an endorsement of Pepco's position on that issue.

Q. Are you sponsoring any exhibits to accompany your testimony?

A. Yes. I am sponsoring Exhibit CTF-1, which provides the company's responses to data requests that I reference in this testimony.

I. Summary and Recommendations

Q. Please summarize your findings.

A. My primary finding is that Pepco's performance metrics show no objective need for further system enhancements to improve system-wide reliability. The company currently maintains "first-quartile" reliability compared to other electric utilities nationally.[2] Therefore, the data supports maintaining, or even reducing, recent spending levels to preserve this high standard without placing an undue financial burden on ratepayers. Further capital investment in reliability is no

[1] Schedule (TOA)-3.
[2] Alo Direct at 20.

longer cost-effective. The marginal benefit of reliability-related capital investments to customers has declined now that the most impactful projects are already complete. I also recommend several disallowances for projects that are not used and useful or where the costs exceed the direct benefits to ratepayers. My findings and recommendations are summarized as follows:

- I recommend that the company reduce recent spending levels for system performance investments because Pepco already maintains first-quartile reliability. In 2024, the company exceeded its targets for the System Average Interruption Frequency Index ("SAIFI") and the System Average Interruption Duration Index ("SAIDI"). There is a troubling pattern where significant reliability-related system investment has not resulted in corresponding improvement in the distribution reliability experience for customers. The Commission mandates that all capital investments be cost-effective. Should the company fail to demonstrate this, the Commission must prioritize operational and maintenance strategies, such as proactive vegetation management, over broad capital projects that inflate the company's return on investment at the expense of customers. In addition, Pepco has demonstrated a historical lack of efficacy regarding its prior investment decisions.

- I recommend that the Commission give the Brattle Study little weight when considering the quantitative impact of proposed investments. The Brattle Study fails to include essential ratepayer expenses such as taxes and a return on equity in its quantification of project costs. In addition, the analysis ignores potential stranded costs that occur when assets are replaced before the end of their depreciable life, and Brattle used a simplified 1 percent proxy for avoided maintenance costs for all projects rather than performing a detailed analysis for each unique asset. The lack of granular reliability data for certain projects makes it difficult to verify Pepco's claimed $262 million in total benefits.

Traditional Test Year Compliance Filing Plant Additions

- The White Flint Substation load forecasts show that the combined peak demand for the area will not exceed 35.8 percent of available capacity through 2034. As a result, I recommend a 64.2 percent disallowance totaling $44,279,000 for the White Flint Substation core construction

project. This disallowance reduces the substation cost to the level of capacity needed to serve the forecasted load in the region.

- I recommend a disallowance of $1,760,000 for Distribution Overhead Planned P30/P40 replacements (ITN 77205). This disallowance accounts for a 265% cost increase over the budgeted amount for which the company failed to demonstrate prudence.

Fully Forecasted Test Year Plant Additions

- I recommend the forecasted cost for the PEPCO MD Linden T1 (ITN 69093) the Seat Pleasant T1 Replacement and should be removed from rate base because of a high likelihood that delays will prevent these projects from entering service during the test year.

- ITN 67861 is a capital project intended to replace an aging transformer at the Seat Pleasant Substation to enhance service reliability and reduce failure risks. While Pepco initially projected $1.054 million in plant additions for the 2026 FFTY, the project remains in the initiation phase with construction not slated until late 2027. Consequently, because the asset will not be "used and useful" by the December 2026 deadline, I recommend that the associated costs be removed from the company's rate base.

- IITN 69084 is a capital initiative designed to replace the Central Avenue T2 transformer. While the project aims to secure a spare transformer and prepare the site for installation by 2026, Brattle's current benefit-cost analysis shows that the investment costs outweigh the quantified benefits (reliability, restoration, and O&M savings). Because the project is not currently cost-effective, I recommend that the Commission remove $2.415 million in plant additions from the company's rate base.

- Pepco's ITNs 68901 and 70898 are proactive underground cable replacement projects with a forecasted cost of $3.93 million. While intended to improve system performance, Pepco's current reliability metrics already exceed those of its peers, suggesting that these projects are not necessary. Since the primary benefits of undergrounding are already in place by the undergrounding itself, the company's additional efforts are characterized as "preventative maintenance" rather than essential upgrades. Consequently, I recommend that the Commission remove the full $3.93 million from the company's rate base for the FFTY.

- ITN 72002 is a $45.01 million component of the White Flint Substation Project designed to install three underground 69kV feeders to resupply the Linden Substation by December 2025. Although the company claims that the investment is necessary for load growth and reliability, the area's reliability is already above average and the projected load growth has not materialized. Due to these discrepancies, my recommendation is to remove $42.01 million of forecasted plant additions from the company's rate base.

II. Capital Expenditures

Q. Please describe Pepco's proposed capital expenditure plan.

A. The company has scaled back its capital spending relative to its previous multi-year rate plan, reducing the 2025 and 2026 budgets by 14% and 19%, respectively.[3] These adjustments focus more on increased investment for IT security and corrective maintenance while reducing investment for capacity planning projects.[4] At the time of the company's filing, its capital expenditure plan included actuals for 2024 and projected expenditures for 2025 and 2026. I have shown the company's expenditures for 2024-2026 in Table CTF-1 below.

[3] Alo Direct at ii.
[4] *Id.*

TABLE CTF-1

Proposed Capital Expenditure Spend
($1,000s)

Category	2024A	2025B	2026B	Total	% Change
Capacity Planning and Management - Distribution	$15,068	$19,832	$4,310	$39,210	-71.4%
Corrective Maintenance - Distribution	72,417	47,967	55,274	175,657	-23.7%
Corrective Maintenance - Substation	6,385	6,745	7,005	20,136	9.7%
IT Business Unit Projects (Operations)	18,004	30,027	23,322	71,353	29.5%
IT Corporate Projects (Operations)	490	1,079	580	2,149	18.4%
Preventative Maintenance - Distribution	72	89	85	247	18.1%
System Performance - Distribution	55,430	33,642	54,231	143,303	-2.2%
System Performance - Substation	41,283	22,524	34,016	97,822	-17.6%
Tools	1,104	1,599	1,496	4,199	35.5%
Customer Operations	7,243	5,807	5,013	18,064	-30.8%
IT Business Unit Projects (Customer)	7,418	8,569	6,102	22,089	-17.7%
All Other Project Types	1,911	0	0	1,911	-100.0%
Equipment Refresh	2,205	1,727	1,889	5,822	-14.3%
IT Corporate Projects (Non-Operations)	4,016	4,844	1,123	9,983	-72.0%
Real Estate & Facilities Management	6,344	6,084	906	13,333	-85.7%
Facilities Relocation - PEPCO	5,778	3,514	2,450	11,742	-57.6%
New Business - PEPCO	64,373	51,882	61,053	177,308	-5.2%
	$309,541	$245,931	$258,856	$814,328	-16.4%

Source: Alo Direct Testimony, Table 2: Actual and Budgeted Capital Spending (In Thousands).

As can be seen from Table CTF-1, Pepco's overall projected capital budget for 2026 is set at $258.86 million, which represents a $50.69 million, or 16.4%, decrease from the actual spending of $309.54 million recorded in 2024. This downward trend is visible across most categories as the company shifts from historical expenditures toward its forecasted test year. The decline is primarily driven by cuts in Capacity Planning and Management for Distribution, which dropped by 71.4% (from $15.07 million to $4.31 million), and Corrective Maintenance for Distribution, which saw a $17.14 million reduction. System Performance for Substations also declined by 17.6%. These decreases were

partially offset by increased investments in system modernization, including a 29.5% increase in IT Business Unit Projects for Operations, which rose to $23.32 million, along with increases for Substation Corrective Maintenance and specialized tools. However, System Performance – Distribution remained largely the same.

In summary, the transition from 2024 to 2026 reflects a partial reduction in capital outlays; by scaling back capacity expansion and real estate investments, the company's budget now prioritizes corrective maintenance and IT infrastructure.

III. Distribution System Reliability

Q. How does Pepco measure its reliability performance?

A. The company measures electric service reliability using several reliability metrics, the SAIDI, SAIFI, Momentary Average Interruption Frequency Index ("MAIFI"), and Customers Experiencing Multiple Interruptions ("CEMI"). SAIDI measures the total duration of interruptions for the average customer over a year. SAIFI measures how often the average customer experiences a sustained interruption over a year. MAIFI tracks the average number of customer interruptions lasting less than five minutes. CEMI measures the percentage of customers who experience more than a specific number of outages.

Q. How does Pepco describe its current reliability performance?

A. Company witness Taiwo Alo testifies that Pepco's 2024 performance exceeded Commission targets for SAIDI and SAIFI. Specifically, Pepco achieved a 0.52 SAIFI against a 0.80 target and a 48-minute SAIDI against a 72-minute target.[5] In other words, the average Pepco customer experienced 72 minutes of outages; and on average, for every two customers, one experienced an outage. In addition, MAIFI improved from 1.64 in 2023 to 1.18 in 2024, reflecting fewer momentary power events per customer.[6]

Finally, Mr. Alo notes that Pepco's reliability performance was superior to peer utilities in 2024. He states that Pepco recorded the lowest percentages among Maryland utilities for CEMI, and that, based on 2023 benchmarking, Pepco is ranked in the first national quartile for reliability.[7] Mr. Alo attributes these results to targeted infrastructure investments, including feeder hardening, substation upgrades, and grid automation,[8] and suggest that Pepco's recent reliability performance demonstrates measurable improvements over past years.[9]

[5] Alo Direct at 17.
[6] *Id.*
[7] *Id.*
[8] Alo Direct at 16-17.
[9] Alo Direct at ii.

Q. Do you agree with the company that delivery service reliability has been improving?

A. No. While Pepco saw some slight improvements in SAIDI without Major Event Days ("MED") in recent years, SAIDI with MEDs has not shown the same improvement.

Q. What is the difference between SAIDI with MEDs and SAIDI without MEDs?

A. SAIDI with MEDs reflects the total customer experience, measuring the total average outage duration including all catastrophic weather and extreme events. SAIDI without MEDs normalizes the data by excluding statistical outliers, days where outages exceed a threshold defined by the IEEE 1366 Beta Method. In both instances, higher SAIDI values represent more customer outage minutes and, therefore, worse performance. I have shown these reliability indices over the last five years in Table CTF-2 below.

TABLE CTF-2

Pepco Reliablity Metrics (2020-2024)

Year	SAIDI With MED	SAIFI With MED	SAIDI Without MED	SAIFI Without MED
2020	62.00	0.68	52.00	0.63
2021	75.00	0.66	56.00	0.58
2022	151.86	0.99	54.67	0.67
2023	102.02	0.66	44.72	0.51
2024	65.48	0.59	46.45	0.51
% Change	5.6%	-12.6%	-10.7%	-19.4%

Source: EIA-861 Reliability Forms (2020-2024)

As shown in Table CTF-2, Pepco's primary reliability indices spiked in 2022 due to unfavorable weather conditions. More concerning, however, is the lack of long-term improvement in the SAIDI with MED metric. The average Pepco customer experienced 62 minutes of interruptions in 2020, which rose to 65.5 minutes in 2024, a roughly 6% increase. While SAIDI without MED filters out outages caused by severe conditions to isolate day-to-day performance, the SAIDI with MED metric includes every outage minute, regardless of the cause. Because this metric captures the total duration of outage minutes, it is more reflective of the true customer reliability experience. Despite Pepco's reported efforts to improve other reliability indices, the reality for customers is that they experienced more outage minutes in 2024 than 2020, with no noticeable trend of improvement over the past five years.

Q. What can you conclude from this analysis?

A. Improving system reliability was a major emphasis in the company's last Multi-Year Rate Plan.[10] As a result, Pepco made significant levels of system performance investments during the Multi-Year Rate Plan period. However, the facts presented demonstrate a troubling pattern of significant investment with no corresponding improvement in reliability for customers. The company's position that its reliability is improving is based on a cherry-picked view of its data,

[10] *See* Order No. 89868, Paragraph 147.

focusing on SAIDI excluding MEDs, while ignoring the more critical all-weather SAIDI MED metric that reflects the actual experience of its customers. And, despite the company's reduction of certain reliability investment categories, it is still proposing to maintain System Performance – Distribution capital expenditures near historical levels ($55.4 million in 2024 and $55.2 million in 2026).[11]

Q. Has OPC previously presented evidence to the Commission that demonstrated a lack of correlation between Pepco's reliability investment and improvement in service reliability?

A. Yes. In its 2024 reliability evaluation,[12] OPC concluded that while Pepco met its primary regulatory targets, the company's current capital-heavy strategy is yielding diminishing returns and failing to improve long-term resilience. Pepco successfully met both its SAIFI and SAIDI standards for 2024. Additionally, the utility showed year-over-year improvements in MAIFI and CEMI metrics. Despite these positive metrics, OPC highlights a significant "disconnect" between Pepco's high capital expenditures and its actual system performance during major events. OPC's comments note that Pepco significantly overspent its 2024 reliability capital expenditure budget by 38% (a trend of inaccurate forecasting also observed in 2023).

[11] Table CTF-2.
[12] Comments of the Office of People's Counsel on EDC 2024 Annual Reliability Performance, *In the Matter of the Review of Annual Performance Reports on EDC Reliability Filed Pursuant to COMAR 20.50.12.*11, ML No. 320273 (CN 9353, July 8, 2025).

Crucially, OPC's statistical analysis found a moderate positive correlation ($r = 0.343$) between Pepco's capital expenditure spending and its SAIDI with MED performance.[13] This suggests that higher capital spending has actually been associated with worse performance during MEDs, with Pepco showing a significant deterioration in its ability to withstand high-impact events over the last five years. Consequently, OPC recommended that the Commission should encourage Maryland's utilities to redirect their focus from broad capital projects toward more cost-effective, targeted strategies. Furthermore, OPC advocates for prioritizing Operations and Maintenance ("O&M") solutions, particularly proactive vegetation management, which it identifies as a faster, cheaper, and more impactful method for reducing the frequency and duration of the outages that concern customers most.

Q. What did the Commission say about O&M versus CapEx reliability spending in Case No. 9353?

A. The Commission has acknowledged arguments—primarily driven by the OPC—that Maryland's major utilities, including Pepco, may be reaching a point of "diminishing returns" on capital investments. When alternatives for improving

[13] *Id* at 35.

reliability exist, the Commission requires utilities to perform a benefit-cost analysis to justify the alternative selected by the utility.[14]

Q. How should the Commission view the company's request for additional investment to support reliability in this proceeding?

A. The Commission must view this request for continued reliability investment with extreme skepticism. As discussed previously, significant investment in system reliability was made throughout the Multi-Year Rate Plan period without improvements in the number of outage minutes experienced by customers. My recommendations in this proceeding to reduce the company's proposed distribution capital investments consider the historical lack of efficacy the company has demonstrated in prior investment decisions.

IV. Brattle Group Quantitative Analysis of Pepco's Investments

Q. Can you explain the importance of considering quantitative analysis when evaluating the reasonableness of proposed capital investments?

A. Absolutely. Given the concerns expressed regarding diminishing returns on capital investment and the historical lack of efficacy in reliability investment, it is incumbent on the utility to demonstrate that the benefits customers received from the proposed capital investments outweigh the cost of the investments.

[14] Order No. 91799, *In the Matter of the Review of Annual Performance Reports on Electric Service Reliability Filed Pursuant to COMAR 20.50.12.11*, ML No. 321962 (CN 9353, Aug. 29, 2025) at 47.

Q. Does Pepco provide any quantitative analysis to support its capital investments?

A. Yes. In Order No. 91181, the Commission raised concerns with the insufficient support for a number of Pepco's proposed capital investments.[15] The Brattle Group Quantitative Analysis of Pepco's Investments appears to be Pepco's response to the Commission's concerns.

Q. Please describe the analysis conducted by the Brattle Group.

A. The Brattle Group's Quantitative Analysis of Pepco's Investments ("Brattle Study") is an independent quantitative evaluation of select capital investments commissioned by Pepco. In the study, Brattle evaluated a portfolio of 15 capital projects and programs scheduled to be placed in service in 2026, totaling approximately $38.4 million in nominal capital investments. These investments are categorized into System Performance for both Distribution and Substations, focusing on initiatives such as cable replacements, transformer upgrades, and automated switching technologies.

Brattle's methodology measured benefits over a 20-year time horizon using three primary components: reliability benefits (measured by the Value of Lost Load), avoided restoration costs, and avoided O&M costs. Brattle calculated reliability benefits by estimating the reduction in the frequency and duration of customer outages through standard metrics like SAIFI and SAIDI. The study also

[15] Order No. 91181 at 75.

accounted for the "avoided costs of delay," illustrating the potential cost increases associated with deferring investments. According to the company, the results of the Brattle Study demonstrate that Pepco's proposed investment portfolio delivers a positive economic payback. While the nominal cost of the evaluated portfolio is roughly $38.4 million, the Brattle Study identified approximately $262.2 million of total benefits in real-discounted terms.

Q. Do you have any concerns with the Brattle Study?

A. Yes, I have three primary concerns with the analysis. *First*, the forecasted project costs do not include ratepayers' expenses such as stranded cost, taxes, and a return on equity ("ROE").[16] Given that ratepayers will fund these projects, a benefit-cost analysis should demonstrate that the ratepayers' benefits exceed the ratepayers' costs. *Second*, rather than performing a detailed project-specific analysis for Avoided O&M costs, Brattle used a simplified estimate of 1 percent of the gross plant value. *Finally*, four specific investments lacked sufficient data for calculating reliability benefits individually. Brattle instead derived these benefits based on the performance ratios of other similar programs. I will discuss each of these issues in more detail below.

[16] Pepco Response to OPC DR 15-10.

Q. Why are the forecasted capital costs used by Brattle in the analysis a concern?

A. The Brattle Study only considers the upfront capital expense of the investment, as opposed to all project costs that will be passed on to the ratepayers. In other words, the company only considers its own upfront costs, while ignoring customer costs. Using the company's perspective to calculate costs is problematic because it misrepresents the true costs experienced by customers who are paying for the projects. While this model may be suitable for a non-regulated, for-profit business, it does not account for all the expenses that customers pay in a regulated environment. A non-regulated business would only need to account for its own costs and benefits; however a regulated monopoly whose primary obligation is to serve customers should consider the customer's perspective. Additional costs, such as taxes and the company's ROE, will be collected from ratepayers through the company's revenue requirement after each investment is placed in service. In addition, the model does not account for potential stranded costs. If an asset is replaced before the end of its depreciable life, customers must continue to pay the stranded cost while assuming the responsibility for funding the replacement asset. The model forecast does not consider these additional costs the company relies on to propose program investments.

In the case of a regulated monopoly, where consumers will ultimately bear the cost of any approved investments through rates, the decision-making process should also consider rate affordability. If taxes, the company's return on

investment, and stranded costs are properly included in the forecasted project costs, the project costs would be much higher in the Brattle Study, which would likely demonstrate that the projects are less cost-effective than they currently appear in Brattle's analysis. Ultimately, Brattle's modeling approach is not appropriate for making investment decisions with customer rate impacts in mind.

Q. How did Brattle estimate the avoided O&M costs?

A. The Brattle Group estimated avoided O&M costs by analyzing the empirical relationship between capital investment and ongoing maintenance requirements.[17] This methodology is based on the premise that replacing aging infrastructure with modern equipment reduces expenditures by decreasing the frequency of corrective maintenance and leveraging technological advancements.[18] To quantify this effect, Brattle reviewed Pepco's Maryland cost-of-service data for distribution assets between March 2022 and March 2023. By comparing gross plant value against O&M expenses during this period, Brattle's analysis indicated that new investments typically reduced O&M costs by approximately 1.4 percent of the total investment amount.[19] To ensure a conservative approach in the benefit-cost evaluation, Brattle applied a lower annual O&M cost reduction rate of 1 percent of the gross plant value for each project under review.[20] These savings were

[17] Schedule (TOA)-3, at 18.
[18] *Id* at 20.
[19] *Id* at 42.
[20] *Id.*

modeled to continue over a 20-year horizon and were assumed to remain constant in real terms throughout that duration.

Q. Do you have any concerns with Brattle's approach to estimating avoided O&M?

A. Yes. My primary criticism is Brattle's reliance on a generalized 1 percent proxy derived from high-level cost-of-service data rather than conducting detailed, project-specific analyses of expected maintenance savings for each unique asset. This proxy was calculated using only a single year of incremental data (March 2022 to March 2023).[21] This small sample size does not accurately capture long-term O&M trends or the distinct performance characteristics of different equipment types. For example, the replacement of a transformer that has a history of maintenance issues may have more avoided future O&M expense than a transformer being replaced simply because it uses outdated technology.

Q. Did Brattle make certain assumptions regarding the reliability benefits of certain projects?

A. Yes. Brattle identified a significant gap in reliability data for four of the 15 investment plans which Brattle categorized as "Group 2" programs—Network Remote Management System - Line, 69kV MOD Switch Replacements, Bells Mill Transformer #11 Replacement, and Disconnect Switch Replacements. Brattle found that each of the Group 2 programs lacked the historical feeder data or

[21] *Id*.

performance metrics required for a direct benefit calculation.[22] Investment Plans included in Group 1 are those where Pepco had most of the necessary data available, including feeder data, and reliability improvements measured individually.[23] This accounted for nine programs and two projects. To address the missing data with Group 1 projects, Brattle employed a proxy, assuming that the Bells Mill transformer would perform similarly to other replaced transformers and assigning the remaining three programs the lowest benefit-to-investment ratio found among "Group 1" projects, which was the 1.07 ratio from the Maryland Cable program.[24] In other words, rather than using asset specific data to calculate the reliability benefits of these projects, Brattle assumed they would have the same benefit ratio of the Maryland Cable Program.

Brattle's reliance on these generalized proxies raises significant concerns regarding the efficacy and accuracy of the analysis. By applying a single ratio across diverse technologies, Brattle's methodology assumes that specialized equipment like remote management sensors or automated switches will yield the same reliability value as underground cabling. This assumption potentially ignores the unique operational benefits of each asset. Ultimately, the lack of granular reliability data makes it difficult for stakeholders to verify the claimed $262 million in total benefits, as Brattle's assumptions may still overstate the

[22] *Id* at 39.
[23] Schedule (TOA)-3, at 38.
[24] Alo Direct at 29-31.

value of less impactful projects or fail to reflect the true needs of the infrastructure sites.

Q. What are your conclusions with respect to the Brattle Study?

A. The Brattle Study fails to provide the rigorous, project-specific justification necessary to support Pepco's proposed capital investments. By omitting critical ratepayer impacts such as taxes, the company's return on investment, and potential stranded costs, Brattle's analysis significantly understates the true economic burden on customers. This narrow focus on only upfront capital expenses misrepresents the actual cost-effectiveness of the portfolio and risks the approval of projects that may not be prudent under a full revenue requirement analysis. Furthermore, the methodology's reliance on generalized proxies (specifically the 1 percent O&M estimate derived from a single year of data and the application of arbitrary performance ratios for "Group 2" projects) introduces a level of uncertainty that undermines the credibility of the claimed $262.2 million in benefits. Without a transparent evaluation that accounts for the total costs borne by ratepayers and the unique reliability characteristics of each asset, the Brattle Study is an insufficient tool for determining whether these investments deliver a positive and verifiable economic payback. As a result, the Brattle Study should be given little weight when considering the quantitative impact of the company's proposed capital investments.

V. Prudency Analysis of TTYCF Plant Additions

Q. What is the purpose of this section of your testimony?

A. In this section, I set forth my findings and recommendation regarding the prudence of Pepco capital expenditures placed into service between April 30, 2024, and October 15, 2025. Because these capital expenditures are reflected in the rate base of both Pepco's proposed FFTY and Traditional Test Year Compliance Filing ("TTYCF"), the disallowances I recommend in this section apply impact both of Pepco's proposed revenue requirements. Proposed plant additions for 2026 are included rate base for the FFTY. I will discuss my review of those projects in Section VI of my testimony.

Q. Describe the Maryland utility regulations that inform the prudency of historical capital expenditures.

A. The Commission determines the prudence of project expenditures primarily through a retrospective evaluation known as a "prudence review," which is grounded in the statutory mandate that public service companies charge "just and reasonable" rates. Under Maryland Code, Public Utilities Article ("PUA") § 4-201, a utility is required to provide services at rates that are just and reasonable, and the Commission is empowered to disallow recovery of costs that do not meet this standard. While the term "prudence" is a common law regulatory principle, it is explicitly codified in specific contexts. The legal standard for prudence applied by the Commission is a "no-hindsight" test. Prudency requires a demonstration by the utility that its projects were appropriately selected, that they provided value to

ratepayers, that good management judgment was exercised in the selection of the materials and methods used to execute the projects, and that the costs – by comparison with alternatives – were justified.[25] This means the Commission evaluates whether a utility's decision was reasonable based on the facts and circumstances known—or that should have been known—at the time the decision was made. Also, a utility must demonstrate that its expenditures were the result of a rational decision-making process, including the consideration of alternatives and cost-effectiveness. The burden of proof remains with the utility throughout this process; pursuant to PUA § 3-112(b), "the burden of proof is on the proponent of the new rate or change in rate." In other words, the party "filing an application or a complaint has the burden of proof" to justify that its requested rate recovery is based on prudently incurred costs.[26]

In practice, for major projects, the Commission's review includes a fact-specific prudence audit when the utility seeks to move those costs into base rates. If the Commission determines that a project was mismanaged or that expenditures were excessive relative to what a reasonable manager would have authorized, the Commission issues a "disallowance," preventing the utility from recovering those specific costs from ratepayers.

[25] Order No. 91396, *Baltimore Gas and Electric Company's Application for an Electric and Gas Multi-Year Plan*, ML No. 313299 (CN 9645, Nov. 1, 2024) at 3-4.
[26] COMAR 20.07.01.07

1. White Flint Substation

Q. Describe the White Flint Substation Project.

A. The White Flint Substation Project is a major infrastructure initiative designed to address purported capacity constraints at the Parklawn Substation. The White Flint Substation is made up the following ITNs:

- White Flint New Substation (ITN 74120): The core substation construction, which saw $68.97 million in plant additions in 2024.
- New Supply Lines (ITN 74121): Construction of underground supply lines, with $24.23 million in 2024 additions and a projected $27.46 million in 2025.
- Distribution Feeders (ITN 74118): Installation of feeders to transfer load from Parklawn, with $15.82 million in projected 2025 plant additions.
- Sligo-Linden 69kV Feeders (ITN 72002): Related work to install three 69kV feeders, projected at $45.01 million in 2025

Portions of the White Flint Substation (ITN 74120) were placed in service in June 2024. While the substation itself is operational and energized, associated work, such as the completion of final 69kV supply lines and the remaining load transfers, is being completed in stages and is scheduled to continue through 2025 and 2026. In total, the White Flint Substation Project is expected to cost approximately $181.49 million.

Q. Do you have any concerns regarding the White Flint Substation Project?

A. Yes. The project has already been subject to analysis regarding the accuracy of the underlying load growth forecasts.[27] My evaluations of the Ten-Year Capacity Forecast have suggested that actual peak demand will be significantly lower than the projected substation capacity. I have shown the combined load forecast of the Parklawn and White Flint Substations in Table CTF-3 below.

TABLE CTF-3

White Flint and Parklawn Load Forecast

Substation	Capacity (MVA)	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Parklawn	82.5	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
White Flint	95.0	39.6	41.3	42.4	43.0	43.0	43.2	43.8	44.1	44.1	45.2
Total	177.5	57.9	59.6	60.7	61.3	61.3	61.5	62.1	62.4	62.4	63.5
% of Total		32.6%	33.6%	34.2%	34.5%	34.5%	34.6%	35.0%	35.2%	35.1%	35.8%

Source: Response to OPC Data Request No. 5-3(a).

As can be seen from Table CTF-3, at no point between 2025–2034 is the combined peak demand expected to exceed 35.8% of the available capacity. This suggests that the new White Flint Substation project was constructed to serve additional load that is not expected to materialize over the next ten years. The timing of new load growth, such as the North Bethesda Gateway development, was previously scrutinized, as early as 2021,[28] well before some components of

[27] *See* Direct Testimony of OPC Witness Melissa Whited, *Potomac Edison Power Company's Application for an Electric Multi-Year Plan*, ML No. 234018 (CN 9655, Mar. 4, 2021).
[28] *Id.*

that development were completed in late 2025, raising questions about the pace and necessity of the associated forecasted investments. Thus, Pepco knew or should have known that the White Flint substation project was not needed to meet anticipated demand when it selected, constructed, and energized the project. The 2025 forecasts of 57.9 MVA—which already includes the North Bethesda Gateway development load—is still well below the available capacity of the Parklawn Substation (82.2 MVA). Evidence shows that the additional capacity provided by the White Flint substation is not needed to serve the North Bethesda Gateway development, despite the company's reliance on it as a primary project driver.

Q. Have previous forecasts for the Parklawn/White Flint Substation load zone shown to be overstated?

A. Yes. In a previous forecast for the Parklawn Substation, Pepco expected peak demand growth to reach 67.5 MW in 2022.[29] However, as can be seen from Table CTF-3, the forecast in 2025 has been reduced to 57.9 MW, almost 10 MW less than the forecast three years prior. Clearly, the load growth for this area of Pepco's service territory has been less than Pepco previously claimed it would be.

Q. What is your recommendation regarding the White Flint Substation Project?

A. I recommend a partial disallowance to account for the portions of capacity that are not needed to serve currently projected future load in the North Bethesda area of

[29] Pepco Response to OPC DR 11-2.

Montgomery County. Applying the "no-hindsight" standard of prudence review, the Commission should disallow $44,279,000 (64.2%) of the White Flint Substation core construction costs (ITN 74120). Pepco should have known its load growth forecasts were significantly overstated, as its current 2025 forecast of 57.9 MW is nearly 10 MW lower than projections made three years prior. Furthermore, management should have known that existing capacity at the Parklawn Substation (82.2 MVA) was already sufficient to serve the forecasted 2025 load, including the North Bethesda Gateway development. Because Pepco failed to re-evaluate its design despite clear evidence that demand had stalled (resulting in a project that will utilize only 35.8% of combined capacity through 2034) the investment was not the result of a rational decision-making process based on contemporaneous facts.

2. ITN 77205: Distribution Overhead Planned P30/P40 replacements

Q. Describe ITN 77205: Distribution Overhead Planned P30/P40 replacement.

A. The Distribution Overhead Planned P30/P40 replacements program (ITN 77205) is a corrective maintenance initiative focused on proactively addressing non-emergency deficiencies in Pepco's overhead distribution system. Deficiencies are identified through daily outage follow-up investigations, where engineers pinpoint equipment issues that contribute to outages or represent imminent vulnerabilities likely to cause future interruptions. The program targets components assigned Priority 30 (replacement recommended within one year) or Priority 40

(replacement recommended within one to five years) to ensure the continued integrity of Pepco's network and overall system reliability.

The program is classified within the IT Infrastructure and System Reliability priority group, reflecting its role in maintaining grid performance. For the 2024 historical test year, the company recorded actual expenditures of approximately $2.92 million. Planned spending for the upcoming years is more moderate, with projected expenditures of $547,000 in 2025 and $571,000 in 2026. Work under this program is performed on a continuous basis, with plant additions occurring monthly across various locations in the service territory.

Q. Do you have any concerns regarding the 2024 expenditure associated with ITN 77205?

A. Yes. The company spent $1.76 million more than budgeted for this project, a cost increase of 265%. Pepco's explanation for this variance is due to "additional unexpected failures than planned."[30] The company completed 525 replacements in 2024. However, even after 2024, the company has only budgeted $547,000 in 2025 and $571,000 in 2026, approximately $2.4 million less than the actual expenditures in 2024.[31] The company has not provided any information about the cost per replacement replacements completed compared to budgeted amounts.

[30] Pepco Response to OPC DR 5-1.
[31] Schedule (TOA)-1, p. 22 of 88.

Q. Does the company provide sufficient justification for this significant cost variance?

A. No. The company admits that project budgets for ITN 77205 are based on "historical trends" rather than a "projected number of repairs and replacements."[32] However, the company has not demonstrated that it completed more replacements than the budgeted amounts. The significant variance in ITN 77205, where Pepco completed only 525 replacements in 2024 despite a year-end backlog of 1,006 work orders, suggests that increased costs may stem from inefficient project execution or a failure to manage the maintenance cycle effectively, rather than a proportional increase in the volume of work performed.

Q. What is your recommendation regarding ITN 77205?

A. Because the company has not demonstrated that these additional expenditures were prudently incurred, I recommend the Commission disallow the cost variance associated with ITN 77205. Since these plant additions were placed into service in 2024, my recommendation reduces the TTYCF plant-in-service balance by $1,760,000.

[32] Pepco Response to OPC DR 15-1(g).

VI. Capital Expenditures Forecasted for the FFTY.

Q. What factors does the Commission consider when determining whether FFTY capital expenditures should be approved?

A. When evaluating whether forecasted expenditures should be approved, the Commission relies on several core factors centered on the "reasonableness of the investment.[33] A primary consideration is the" used and useful" principle, where the Commission assesses whether the proposed assets will actually be in service and providing benefits to customers during the rate period.[34] Because forecasted expenditures involve future projections rather than historical facts, the utility's planning processes should be closely examined, requiring evidence that the projects are necessary for maintaining safety and reliability and that the utility has sufficiently considered lower-cost alternatives.

Furthermore, the Commission evaluates the accuracy of the utility's forecasting methods by comparing proposed spending levels against historical benchmarks and previous capital investment performance. Under the framework established in Case No. 9618, utilities are often required to submit detailed capital investment plans that include cost-benefit analyses for major projects, ensuring that the long-

[33] *See* Order No. 91659, *Baltimore Gas and Electric Company's Application for an Electric and Gas Multi-Year Plan*, ML No. 319117 (CN 9692, May 23, 2025) at 7-8.
[34] Order No. 89678, *Application of Baltimore Gas and Electric Company for an Electric and Gas Multi-Year Plan,* ML No. 232998 (CN 9645, Dec. 16, 2020) at 16 (requiring MRP rate base to reflect balance of plant "used to provide service to customers during the rate effective period.")

term gains for ratepayers justify the capital outlay.[35] Throughout this evaluation, the burden of proof remains on the utility, per COMAR 20.07.01.07, to demonstrate that the forecasted costs are reasonable, prudent, and in the public interest.

Q. Is there evidence to suggest that Pepco will not be able to complete all forecasted capital expenditures as planned in the test year period?

A. Yes. In the company's supplemental filing, Pepco updated its revenue requirement and rate base calculations for the TTYCF from nine months of actual data and three months of projections to 12 months of actual data ending September 30, 2025.[36] The TTYCF revenue requirement decreased by approximately $24 million, falling from $142 million to $118 million. While a significant portion of this variance related to operating expenses, updates to the rate base, which reflect capital investment in service, accounted for an approximate $3 million reduction in the revenue requirement. Specifically, Ratemaking Adjustment ("RMA") 1, which annualizes reliability plant closings during the test period, was updated with actual results and led to a revenue requirement reduction of roughly $3 million. This indicates that the volume of reliability-related capital projects closed to plant in service during the test year was lower than the company had initially forecasted.

[35] *See* Order No. 89482, *In the Matter of Alternative Rate Plans for Methodologies to Establish New Base Rates for an Electric Company or Gas Company*, ML No. 228451 (CN 9618, Feb. 4, 2020).
[36] Pepco Supplemental Direct Testimony, *Potomac Electric Power Company's Application for Adjustments to its Retail Rates for the Distribution of Electric Energy*, ML No. 325456 (CN 9820, Dec. 18, 2025).

The company's accounting for blanket projects provides additional evidence of delays or timing shifts in capital-related activities. Pepco identified a driver for its O&M variance associated with the timing of its annual blanket project review.[37] The company originally forecasted that the review and associated entries for these projects would occur in September 2025, within the TTYCF period; however, the actual review and entry were not completed until November 2025, which fell outside the TTYCF period.[38] Furthermore, the company reported a $4.5 million decrease in Service Company billings, partly driven by labor attrition and the timing of backfilling positions in key departments like Accounting and IT, which can impact the administrative support and oversight required to move capital projects to completion. [39] "Given these systemic administrative delays and the recent downward trend in actual plant closings compared to initial projections, the Commission should scrutinize the FFTY project-specific expenditures to determine whether Pepco's proposed capital plan remains a realistic forecast of work that will actually be completed and placed into service during the FFTY.

[37] Nelson Supplemental Direct at 5.
[38] *Id* at 5 and 6.
[39] *Id* at 5.

1. ITN 69093: PEPCO MD Linden T1

Q. Describe ITN 69093, PEPCO MD Linden T1.

A. ITN 69093, PEPCO MD Linden T1, is a substation system performance project focused on the replacement of the T1 transformer at the Linden Substation. The project is classified within the "Mandated Work and Projects in Progress" priority group and is scheduled for an estimated in-service date of November 2026. [40] The primary driver for this investment is the age of the existing transformer. The company's proposed solution involves the complete replacement of the transformer and all related equipment to maintain reliable service and reduce the risk of forced outages. Pepco projects plant additions of approximately $1.119 million for this project.[41]

Q. Do you have any concerns regarding ITN 86313?

A. Yes. The in-service date for this project is not until November 2026.[42] As discussed previously, Pepco's budgeted capital investments for the TTYCF year were higher than the actual investment level. Given Pepco's prior history of project delays, there is a high likelihood that this project will not be in-service until after the forecasted test year period. As a result, ratepayers should not be burdened with incurring project costs that are not used and useful.

[40] Schedule (TOA)-1, Page 79 of 88.
[41] *Id.*
[42] *Id.*

Q. What is your recommendation for ITN 86313?

A. I recommend that the forecasted cost of this project be removed from the company's rate base. This recommendation removes $1.119 million of plant additions from the company's FFTY.

2. ITN 67861: PEPCO MD Seat Pleasant T1 Replacement

Q. Describe ITN 67861: PEPCO MD Seat Pleasant T1 Replacement.

A. ITN 67861, titled PEPCO MD Seat Pleasant T1 Replacement, is a capital project within the System Performance – Substation executive category. The primary objective of this initiative is to replace an aging transformer at the Seat Pleasant Substation that has reached the end of its reliable service life. By replacing this transformer, the company aims to reduce the risk of equipment failure and strengthen overall service reliability for its Maryland customers. The project is projected to contribute approximately $1.054 million in plant additions during the 2026 forecasted test year.

Q. Do you have any concerns regarding ITN 67861?

A. Yes. Similar to ITN 86313, ITN 67861 has an in-service date near the end of the forecast test year period. Specifically, the in-service date is December 2026. However in response to discovery, the company admits that this replacement project "is still in the initiation phase. The [c]ompany is currently looking to finish

initiation this year with plans for construction in late 2027." [43] This means that the project will not be used and useful until after the FFTY.

Q. What is your recommendation for ITN 67861?

A. I recommend that the forecasted cost of this project be removed from the company's rate base. This recommendation removes $1.054 million of plant additions from the company's FFTY.

3. ITN 69084: Pepco MD Distribution Central Avenue T2

Q. Describe ITN 69084: Pepco MD Distribution Central Avenue T2.

A. ITN 69084, titled Pepco MD Distribution Central Avenue T2, is a capital initiative within the System Performance – Substation executive category and is classified under the IT Infrastructure and System Reliability priority group.[44] The primary objective of this project is to address the condition of the Central Avenue T2 transformer, which was installed in 1972 and is currently past its normal operational lifespan[45]. Technical indicators, including a high double power factor that has been worsening since 2001, signify a risk of failure that could severely stress the broader distribution system.[46] Power factor is a diagnostic measurement used to assess the health of the substation. In technical terms, a double power

[43] Pepco Response to OPC DR 15-1(c)(ii).
[44] Alo Direct at 131.
[45] *Id.*
[46] *Id.*

factor indicates insulation degradation but does not always signal immediate failure. Minor issues like moisture can sometimes be resolved through oil processing or dehydration.

Pepco's proposed solution involves the procurement of a spare transformer to ensure operational readiness for an emergency or planned replacement within one to two years, as well as site preparation involving the construction of a new pad and connection to alternating current. The company projects spending approximately $1.19 million in 2025 for procurement and site preparation, followed by $1.35 million in 2026 to complete the installation. Associated plant additions are projected to occur in 2026.[47]

Q. Do you have any concerns regarding ITN 69084?

A. Yes. The Brattle Study indicates that the total benefits for the ITN 69084: Pepco MD Dist Central Avenue T2 project will not exceed its investment cost. The combined quantified benefits total $1.321 million using the WACC-Discounted method, which is composed of $752,000 in reliability benefits, $378,000 in avoided restoration costs, and $197,000 in avoided O&M costs[48]. Based on these figures, the anticipated costs exceed the project benefits by approximately $29,000.[49]

[47] Alo Direct at 131-132.
[48] Schedule (TOA)-3, Table 16: Results for 69084: PEPCO MD DIST Central Avenue T2.
[49] *Id.*

Given my finding, discussed above, that the Brattle Study underestimates the cost to ratepayers and has not accurately forecasted the benefits of projects, it is more likely than not that this is not a cost-effective investment at this time. Overtime, the project benefits will likely grow as the likelihood of failure increases. Therefore, in a future rate case, a quantitative benefit-cost analysis might suggest that this is a cost-effective project. However, at this point in time, the benefit-cost analysis suggests that this project can be delayed.

Q. What is your recommendation for ITN 69084?

A. I recommend that the forecasted cost of this project be removed from the company's rate base. This recommendation removes $2.415 million of plant additions from the company's forecasted test year. The company has not demonstrated that this is a cost-effective project at this time.

4. ITN 68901: Secondary URD Cable Replacement - PEPCO MD and 70898: PEPCO Maryland Cable

Q. Describe ITNs 68901 and 70898.

A. Pepco designed both of these projects to proactively replace underground distribution cable. In addition, both of these projects are System-Performance Distribution projects, in which the company has proposed to maintain existing spending rates for the FFTY despite reliability metrics that do not suggest increased investment is needed. The company projects total expenditure of $3.93 million in the FFTY.

Q. Do you have any concerns regarding ITNs 68901 and 70898?

A. Yes. The company's reliability metrics suggest that current approach and spending levels to character and levels for System-Performance Distribution investment are higher that what is necessary to ensure safe and reliable service. Pepco's non-MED reliability performance is already superior to peer utilities. In addition, since these projects deal with replacing existing underground cable, the safety and reliability benefits of undergrounding have already been realized by the company. Thus, this project is more accurately characterized as preventative maintenance, which would only provide future benefits in the event that an existing underground cable fails.

Q. What is your recommendation for ITNs 68901 and 70898?

A. I recommend that the forecasted cost of this project be removed from the company's rate base. This recommendation removes $3.93 million of plant additions from the company's FFTY.

5. ITN 72002: Install 3 69kV Feeders from Sligo - Linden 69KV Line

Q. Describe ITN 72002.

A. ITN 72002 is part of the previously described Whit Flint Substation Project. The scope of work includes installing three underground 69kV feeders from Sligo Sub. 9 to Linden Sub. 156 in two 8-way duct banks to resupply Linden Sub. from

Takoma Sub. 27 via Sligo Sub[50]. 9. These new feeders are intended to improve the reliability of supply to Linden Substation by converting it to a completely underground supply and eliminating the overhead exposure.[51] According to the company, the primary purpose of this project is to "meet load growth requirements in the White Flint area of Montgomery County and address reliability issues on the Bells Mill Road Sub."[52] This project is expected to be in-service December 2025, during the FFTY, and the expected project cost is $45.01 million.

Q. Do you have any concerns regarding ITN 72002?

A. Yes. The company provides two purposes for this project, (1) to improve reliability and (2) to address load growth at the Park Lawn Substation. As I have previously discussed, the company already maintains well above average reliability and the load growth in the zone served by the Park Lawn Substation was over-forecasted and has not materialized.

This project is functionally redundant. Its primary purpose is to free up 78 MVA of capacity at the Bells Mill Substation specifically to serve the new White Flint Substation, a facility for which I have already recommended a disallowance. The justification for the entire White Flint family is based on a load forecast that has failed to materialize. Specifically, the Parklawn Substation, which White Flint

[50] Alo Direct at 46.
[51] Pepco Response to OPC DR 5-1.
[52] *Id.*

was intended to relieve, maintains a firm capacity of 82.5 MVA while its actual projected peak for 2025 is only 18.32 MVA. Because ITN 72002 serves as a capacity enabler for an unnecessary substation, and the existing system already maintains reliability above the peer average, there is no prudent justification for ratepayers to fund this project.

Q. What is your recommendation regarding ITN 72002?

A. I recommend that the forecasted cost of this project be removed from the company's rate base. This recommendation removes $42.01 million of plant additions from the company's forecasted test year. If the Commission disallows the company's request for FFTY cost recovery, this project should remain subject to a future, rigorous prudency review to determine if the actual investment was necessary, especially given that current projections for the White Flint project family are based on load growth that has not yet materialized.

VII. Conclusion.

Q. What are the impacts of your proposed capital expenditure disallowances?

A. I have summarized the impacts of my proposed capital expenditure disallowances in Table CTF-4 below.

TABLE CTF-4

Summary of Capital Expenditure Disallowances.

Project/ITN	TTYCF	FFTY
White Flint Substation (ITN 74120)	$ 44,279,000	$ -
Distribution Overhead Planned P30/P40 replacements (ITN 77205)	$ 1,760,000	$ -
Install 3 69kV Feeders from Sligo - Linden 69KV Line (ITN 72002)	$ -	$ 42,100,000
PEPCO MD Linden T1 (ITN 69093)	$ -	$ 1,119,000
PEPCO MD Seat Pleasant T1 Replacement (ITN 67861)	$ -	$ 1,054,000
Pepco MD Distribution Central Avenue T2 (ITN 69084)	$ -	$ 2,415,000
PEPCO Maryland Cable (ITN 70898)	$ -	$ 2,471,000
Secondary URD Cable Replacement (ITN 68901)	$ -	$ 1,334,000
Total	$ 46,039,000	$ 50,493,000

As can be seen from Table CTF-4, my proposed recommendations result in disallowances of $46,039,000 for the TTYCF and $50,493,000 for the FTY.

Q. Please summarize your conclusions.

A. I conclude that Pepco's current reliability performance does not warrant the extensive capital expenditures proposed in this proceeding. My analysis demonstrates that significant investments have not translated into improved outcomes for customers, especially during high-impact major event days. The quantitative support provided by the company relies on Brattle's flawed study which fails to account for the full economic burden on Maryland ratepayers. Consequently, I recommend that the Commission make substantial disallowances for projects that are either not cost-effective or fail to meet the used and useful standard within the forecasted period.

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

A. Yes, it does.

Colin T. Fitzhenry

Professional Qualifications and Expert Testimony Listing

Testimony and Regulatory Litigation Support

Mr. Fitzhenry has provided expert testimony in utility regulatory proceedings before state commissions in connection with rate cases and various other utility matters. In addition, Mr. Fitzhenry has participated in settlement hearings at the Federal Energy Regulatory Commission regarding Formula Rate Tariff modifications. His testimony has focused on a number of topics, including capital expenditure prudency, net power cost, multi-year rate plans, service reliability and other utility-related matters. Mr. Fitzhenry has collaborated with outside counsel in the development of litigation strategies supporting rate proceedings, including testimony development, responding to discovery requests from utilities, interveners and commission staff, and in the preparation of legal briefs.

Professional Background

Principal, Brubaker and Associates (January 2026-Present)

Associate, Brubaker and Associates (July 2024-December 2025)

Senior Consultant, Brubaker and Associates (January 2023-June 2024

Associate Consultant, Brubaker and Associates (2021-2022)

Engineer, Brubaker and Associates (2013-2020)

Engineer Intern, Dynegy (2009)

Educational Background

B.S. in General Engineering, University of Illinois Urbana-Champaign

Conference Seminars and Presentations

BAI Fall Seminar, Competitive Procurement: Gas Market Structure, Multiple Years.

Testimony in Utility Regulatory Proceedings

Summary of Testimony in Utility Regulatory Proceedings			
Application	**Commission**	**Docket/Case No.**	**Subject**
Ameren Illinois Company	Illinois Commerce Commission	Docket No. 22-0487	Capital Projects and System Reliability Metrics
Commonwealth Edison Company	Illinois Commerce Commission	Docket No. 22-0486	Capital Projects and System Reliability Metrics
Columbia Gas of Maryland, Inc.	Maryland Public Service Commission	Case No. 9701	Capital Expenditures and STRIDE Investments
Rocky Mountain Power	Public Service Commission of Wyoming	Docket No. 20000-633-ER-23	Net Power Cost and Energy Cost Adjustment Mechanism
Washington Gas Light Company	Maryland Public Service Commission	Case No. 9704	Infrastructure Riders and Capital Expenditures
Georgia Power Company	Georgia Public Service Commission	Docket No. 55378	Integrated Resource Planning
Rocky Mountain Power	Public Service Commission of Wyoming	Docket No. 20000-653-EA-23	Reliability and Power Quality, Service Quality Reports
DTE Gas Company	Michigan Public Service Commission	Case No. U-21291	Capital and Operating Expenditures
Easton Utilities Commission	Maryland Public Service Commission	Case No. 9719	Capital and Power Production Expenditures
PacifiCorp	Public Utility Commission of Oregon	Docket No. UE 434	Net Power Cost and Transition Adjustment Mechanism
Chesapeake Utilities Corporation	Maryland Public Service Commission	Case No. 9722	Capital Expenditures and Operating and Maintenance Expenditures
Baltimore Gas and Electric Company	Maryland Public Service Commission	Case No. 9645	Reconciliation of Mulit-Year Rate Plan
Columbia Gas of Maryland, Inc.	Maryland Public Service Commission	Case No. 9754	Capital Expenditures and STRIDE Investments
Rocky Mountain Power	Public Service Commission of Wyoming	Docket No. 20000-653-EA-24	Reliability and Power Quality, Service Quality Reports
NV Energy	Nevada Public Service Commission	Docket No. 24-05041	Load Forecast
Rocky Mountain Power	Utah Public Service Commission	Docket No. 24-035-04	Net Power Cost
Washington Gas Light Company	Public Service Commission of the District of Columbia	Case No. 1179	Approval for Natural Gas Infrastructure Replacement Plan
Rocky Mountain Power	Public Service Commission of Wyoming	Docket No. 20000-671-ER-24	Net Power Cost and Production Cost Modeling
Washington Gas Light Company	Public Service Commission of the District of Columbia	Case No. 1180	Capital Expenditures and PROJECTpipes Investments
Evergy Kansas Central	Kansas Corporation Commission	Docket No. 25-EKCE-207-PRE	Predetermination of Ratemaking Principles for New Generating Resources
Consumers Energy Company	Michigan Public Service Commission	Case No. U-21806	Capital and Operating Expenditures
Duke Energy Indiana	Indiana Utility Regulatory Commission	Cause No 46193	CPCN to Construct a New Natural Gas Generating Resource and Ratemaking Treatment
Indiana Michigan Power Company	Indiana Utility Regulatory Commission	Cause No 46217	CPCN to Acquire Oregon Clean Energy Center and Ratemaking Treatment
Ameren Illinois Company	Illinois Commerce Commission	Docket No. 25-0382	Reconciliation Capital and Operating Expenditures
DTE Electric Company	Michigan Public Service Commission	Case No. U-21860	Benefit-Cost Analysis and Distribution Investment Programs
Commonwealth Edison Company	Illinois Commerce Commission	Docket No. 25-0383	Reconciliation Capital and Operating Expenditures
Portland General Electric Company	Public Utility Commission of Oregon	UM 2377	HB 3546 Alignment, Direct Access Impact/Green Tariff Ratemaking Options, and the large New Load Direct Access program
Southwestern Public Service Company	New Mexico Public Regulatory Commission	25-00066-UT	CPCN for Eight Self-Build utility-Owned Resources

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

Case No. 9820

Data Responses Cited in the Direct Testimony of Colin T. Fitzhenry

PEPCO Response to OPC Data Request 5-1

PEPCO Response to OPC Data Request 11-2

PEPCO Response to OPC Data Request 15-1

PEPCO Response to OPC Data Request 15-10

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9820
RESPONSE TO OPC DATA REQUEST NO. 5

QUESTION NO. 1
Please refer to Table 1: Plant Additions Exceeding $1 Million (2024-2026) included in the Direct Testimony (Part 1) of Company Witness Taiwo Alo. For all projects placed in-service in 2024, please provide the following information:

(a) In-Service Date;

(b) Project Budget;

(c) Project Cost Variance (Actual-Budget);

(d) Project Description; and

(e) Explanation for any Material Changes in Project Scope from Planning to Execution.

RESPONSE:

a-c. Please see tab 'OPC 5-1' in MD 9820 OPC DR 5 Attachment Electronic Only.

d. For project descriptions, please refer to Schedule (TOA)-1.

e. Many of the projects were programmatic or emergent in nature, with execution-phase adjustments driven by operational needs. Overall, the major variances across the portfolio were corrective and new business, which are generally comprised of high volume, short timeframe and largely responsive individual work orders. For the corrective maintenance variances, these are driven by an increase in volume or scope of equipment failures, inspection and preventative maintenance findings, or damage due to weather. The Company budgets in these areas are influenced by trends but also don't typically cover significant events. The new business portfolio similarly includes a high volume of short duration projects for which the volume and scope are driven by external factors related to customer requests, economy, and development.

Additional details including budget-to-actual variance explanations are provided in tab 'OPC 5-1' in MD 9820 OPC DR 5-1 Attachment Electronic Only.

SPONSOR: Taiwo O Alo

ITN Description	Executive Category	Witness	April 2024 -December 2024 Actual Plant Additions ($000s)	MD Case 9655 Final Reconciliation Jan24-Mar24 Actual Plant Additions	Total 2024 Actuals	2024 Budgeted Plant Additions	Variance	Variance Explanations
74120: White Flint New Substation 69/13kV	Capacity Planning and Management - Distribution	Alo	$113,850	-	113,850	110,056	3,794	All variances related to overspend in 2024 are directly attributable to the work stoppage and subsequent restart during 2020–2021. These interruptions impacted the planned execution schedule and resulted in cost adjustments tied to restarting activities.
74121: White Flint Sub: Construct New Supply Lines (UDLPLGV3)	Capacity Planning and Management - Distribution	Alo	$45,136	(666)	44,470	56,919	(12,449)	The underspend observed is a consequence of work stoppage and restart. The work originally scheduled during that period did not occur as planned, which led to reduced expenditures in certain phases.
71606: Pepco Emergency Restoration Overhead	Corrective Maintenance - Distribution	Alo	$14,255	2,700	16,954	13,247	3,707	The variance is primarily due to aging infrastructure leading to additional unexpected failures than planned. To enhance reliability and mitigate risk, the company prioritized asset replacement over repairs.
189835: UG Cable Fault Permanent Restoration PEPCO MD	Corrective Maintenance - Distribution	Alo	$11,406	-	11,406	-	11,406	$4.7M variance is attributable to the Capital Cable Replacement URD project (PMMBURDC), which was transferred from ITN 77207 to ITN 189835 in early 2024 to improve cost tracking. As a result, the 2024 budget remained under ITN 77207 while actual costs were recorded under ITN 189835. The remaining variance is primarily due to aging infrastructure leading to additional unexpected failures than planned.To enhance reliability and mitigate risk, the company prioritized asset replacement over repairs.
73368: Champlain Bypass	System Performance - Distribution	Alo	$8,982	-	8,982	-	8,982	Outages and work pushed from 2023 to 2024. not having permits to complete the work. No material changes
71613: Pepco Emergency Restoration Underground	Corrective Maintenance - Distribution	Alo	$7,924	502	8,426	10,208	(1,782)	The variance is primarily due to aging infrastructure leading to additional unexpected failures than planned. To enhance reliability and mitigate risk, the company prioritized asset replacement over repairs.
73083: Pepco MD: Substation Ventilation (UDSPRD8LM)	System Performance - Substation	Alo	$5,284	(111)	5,174	690	4,484	Urgent HVAC and Ventilation Replacement/Upgrades were carried out at 26 substations to address high temperature alarms and enhance the cooling efficiency and equipment reliability within the substations.
63770: Pepco 69kV Emergent Corrective Maintenance	Corrective Maintenance - Distribution	Alo	$3,770	82	3,852	-	3,852	Emergent work
72269: Misc. Reliability Improvements	System Performance - Distribution	Alo	$3,682	(190)	3,492	7,904	(4,411)	Program funding was reallocated to cover corrective overspends
72220: Tree Wire/Spacer Cable Installation - Pepco MD (UDLPRM4MU)	System Performance - Distribution	Alo	$3,303	29	3,332	2,012	1,319	Driver for the variance was due to the increase in scope. Around 6 jobs were added to the current list - FDR 14465, 14472, 451, 14479, 14475 & 14900
71427: Pepco Distribution Substation Capital	Corrective Maintenance - Substation	Alo	$4,558	395	4,953	3,246	1,708	Higher emergent substation equipment failures and capital maintenance work than estimated
72995: Priority Feeder Improvements	System Performance - Distribution	Alo	$2,745	183	2,928	6,114	(3,186)	Program that includes multiple smaller scope projects - Underspends driven by changes across multiple projects in estimated scope as well as execution timing. Some projects delayed into future year
72252: MDO / CEMI Remediation	System Performance - Distribution	Alo	$2,641	(178)	2,463	3,070	(607)	Programmatic - decreases across multiple projects
68152: 17000 PEP MD Declared Storms CAPITAL ONLY	Corrective Maintenance - Distribution	Alo	$2,185	(1)	2,184	-	2,184	Unbudgeted storm costs
74376: 69KV MOD Switch Replacements	System Performance - Distribution	Alo	$2,043	569	2,612	5,190	(2,578)	Program funding was reallocated to cover corrective overspends
70898: Pepco Maryland Cable (UDLPRM4FCX)	System Performance - Distribution	Alo	$1,998	8	2,006	2,382	(375)	Programmatic - changes in timeline or scope for individual smaller projects within the program
64367: Pepco Substation Improvements	System Performance - Substation	Alo	$1,964	1,411	3,374	4,066	(692)	Programmatic - changes in timeline or scope for individual smaller projects within the program
77205: Distribution Overhead Planned P30/P40 replacements	Corrective Maintenance - Distribution	Alo	$1,922	502	2,424	664	1,760	The variance is primarily due to aging infrastructure leading to additional unexpected failures than planned. To enhance reliability and mitigate risk, the company prioritized asset replacement over repairs.
63711: Pepco 69kV Planned Corrective Maintenance	Corrective Maintenance - Distribution	Alo	$1,586	(291)	1,296	5,467	(4,172)	Decreases across multiple projects, some funding reallocated/deferred due to unplanned, higher priority emergent work
76930: PEP MD DIST SL CMAIN Repair and Replace	Corrective Maintenance - Distribution	Alo	$1,503	862	2,366	729	1,637	Driver for increased spend was a concerted effort to work streetlight backlog down and necessary corrective actions in response to PSC order in Case 9706. In 2024, Pepco began utilizing a second contractor - now split one for each county. Prior to 2023, only a single contractor was used. In addition, starting in August 2024, daily oversight of Streetlight CM work was shifted to the Outdoor Lighting (ODL) department where more significant controls were place on contractor oversight and systematic closure in associated systems (ASB, oneMDS)
76660: Communication Tower Replacement (Pepco)	IT Business Unit Projects (Operations)	Alo	$1,383	-	1,383	-	1,383	This variance (>$3.5M) for the 2024 year came about after the team surpassed 60% design for the tower and realized the Company would need a significant permitting effort to build as designed up into that point. As a result, the construction timeline was re-baselined to take place in 2026-2027, giving the team the requisite time needed to design and pursue permits. That way when we are at IFC, we have all our permits and can build quickly and efficiently.
72747: Pepco Maryland Network Remote Management System - Line	System Performance - Distribution	Alo	$1,332	2,933	4,266	2,569	1,697	Programmatic work
78124: EU Outage Reporting and Analytics Implementation (PEPCO)	IT Business Unit Projects (Operations)	Alo	$1,319	-	1,319	1,062	257	Programmatic work
66774: PEPCO MD Sub 16S MOD Replacement	Corrective Maintenance - Substation	Alo	$1,237	1	1,238	175	1,063	Emergent substation equipment failure
77475: Pepco 69kV Emergency Restoration	Corrective Maintenance - Distribution	Alo	$1,226	47	1,272	-	1,272	Increases in emergent 69kV failures
188426: PEPCO MD DIST CRAIN HIGHWAY EMERGENT T1 REPLACEMENT	System Performance - Substation	Alo	$1,128	-	1,128	880	248	Emergent transformer failure - budget set with high level estimate for duration and scope
75383: Pepco Distribution Smart Fault Sensors	System Performance - Distribution	Alo	$1,113	122	1,235	792	443	Programmatic - changes in timeline or scope for individual smaller projects within the program
73302: SSN Mesh Network	IT Business Unit Projects (Operations)	Alo	$1,101	220	1,320	1,074	246	Programmatic - changes in timeline or scope for individual smaller projects within the program
73333: Recloser Installations (ACR)	System Performance - Distribution	Alo	$1,096	58	1,153	2,076	(923)	Programmatic - changes in timeline or scope for individual smaller projects within the program
68163: Circuit Breaker – MD Dist	System Performance - Substation	Alo	$1,036	-	1,036	2,711	(1,674)	Programmatic - changes in timeline or scope for individual smaller projects within the program

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9820
RESPONSE TO OPC DATA REQUEST NO. 11

QUESTION NO. 2
Refer to Tables 11 and 12 in Schedule (TOA)-5. To enable a comparison of Pepco's actual load growth to the projections in Tables 11 and 12, provide the winter and summer actual peak load for the White Flint Study Area for each year from 2012 through 2022.

RESPONSE:

Please see the table below. The winter peak analysis has not been performed.

Substation	Season	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Parklawn	Summer	69.4	70.7	72.6	74.2	66.7	66.5	71.3	74.2	69.9	69.9	67.5

SPONSOR: Taiwo O. Alo

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9820
RESPONSE TO OPC DATA REQUEST NO. 15

QUESTION NO. 1
Please refer to "MD 9820 OPC DR 5-1 Attachment Electronic Only.xlsx," tab "OPC 5-1" provided in response to OPC Question No. 5-1 and provide the following information:

(a) Provide the total budget and expenditures (all years) for ITN 73368: Champlain Bypass.

(b) Refer to the Company's Variance Explanation for 189835: UG Cable Fault Permanent Restoration PEPCO MD and provide the total budget and expenditures for ITN 77207 to ITN 189835 combined.

(c) Provide the expected in-service date for ITN 76660: Communication Tower Replacement (Pepco).

(d) Refer to the Company's Variance Explanation for ITN 77475: Pepco 69kV Emergency Restoration and provide the number of 69 kV outages by year for the last five years available.

(e) Provide the number of substation HVAC and Ventilation Replacement/Upgrades that were included in the 2024 budget for ITN 73083: Pepco MD: Substation Ventilation (UDSPRD8LM).

(f) Explain how the budget was derived for ITN 66774: PEPCO MD Sub 165 MOD Replacement, including the equipment being replaced, and describe any changes in actual equipment replacement.

(g) Refer to ITN 77205: Distribution Overhead Planned P30/P40 replacements and provide the number of P30/P40 replacements included in the 2024 budget along with the number of actual replacements.

(h) Refer to ITN 71606: Pepco Emergency Restoration Overhead and provide the number of emergency restorations

RESPONSE:

a. Please see the table below for the total budget and expenditures for ITN 73368: Champlain Bypass. For the 2025 and 2026 budgets, refer to Schedule (TOA)-1, Page 61.

	Actuals	2018	2019	2020	2021	2022	2023	2024
73368	73368: Champlain Bypass	307,818	166,072	322,185	495,498	441,241	763,839	7,224,713
	Budget	2018	2019	2020	2021	2022	2023	2024
73368	73368: Champlain Bypass	2,802,384	2,970,088	669,320	1,747,627	2,702,372	1,067,669	4,526,758

b. The table below provides the budget and actual expenditure for calendar year 2024.

ITN Name	2024 Budget	2024 Actuals
77207: PEP MD DIST UG PLAN CAP P30/P40 Replace	$4,960,203	$343,617
189835: UG Cable Fault Permanent Restoration PEPCO MD	$113,748	$15,650,059
Total	**$5,073,951**	**$15,993,676**

Pepco's higher-than-budgeted expenditures for Underground (UG) Cable Fault Permanent Restoration were primarily driven by the emergent nature of this work and the impact of aging infrastructure. These restorations occur within short planning cycles—typically a few months—and are necessary to address unexpected failures. To enhance system reliability and mitigate risk, Pepco prioritized full asset replacement over temporary repairs in 2024.

The volume and associated spend for these activities vary annually based on outage frequency, which is inherently unpredictable. Budgets are developed using historical averages; however, full visibility into future outage-driven work is not possible. The scope of work includes the installation and removal of complete spans of primary, secondary, and service cables within manholes and duct banks, as well as complete spans of conduit replacements.

c. ITN 76660: Communications Tower Replacement (Pepco) is a programmatic ITN that captures the construction of multiple communication towers with in-service dates that will vary based on timing of the specific underlying tower replacements. As a result, there will not be a single in-service date for the ITN.

d. Interruption rate counts for Pepco 69kV outages are provided below, including both Sustained and Momentary Outages.

2020	2021	2022	2023	2024	2025
126	124	115	123	107	138

A more appropriate comparison would be to look at the trend of Pepco 69kV outages caused by underground cable failures. See table below for subset of above data, including only number of 69kV outages during 2020-2025 period with UG cable failure as the outage cause code. Note that this table includes all UG cable types, not just self-contained fluid filled (SCFF), which are driving the variance due to their age and condition. Note that this table would not include replacements due to leaks (where the cable or accessory started leaking but alarms caught the leak prior to failure and cable or accessory could not be reliably repaired and therefore had to be replaced).

2020	2021	2022	2023	2024	2025

5	3	4	5	4	3

The most appropriate comparison to understand the increasing costs would be to look at the trend of Pepco 69kV outages caused by SCFF cable failures, as these failures are more costly than most other forms. The table below includes just the outage counts caused by SCFF cable failures. Note that this table would not include replacements due to leaks (where the cable or accessory started leaking but alarms caught the leak prior to failure and cable or accessory could not be reliably repaired and therefore had to be replaced).

2019	2020	2021	2022	2023	2024	2025
1	0	0	0	1	3	3

e. Please see table below. Necessary HVAC and Ventilation Replacement/Upgrades were completed at 26 substations.

73083			
Year	**Substation**		**Work Performed**
2024	4	Riverdale	Ventilation & Heaters
	20	Potomac	Ventilation & Heaters
	26	Four Corners	Ventilation & Heaters
	44	Colesville	Ventilation & Heaters
	59	St. Barnabas Road	Ventilation & Heaters
	69	Branchville	Ventilation & Heaters
	72	Camp Springs	HVAC Upgrade
	85	Kingswood	HVAC Upgrade
	97	Green Meadows	Ventilation & Heaters
	105	Surrattsville	Ventilation & Heaters
	143	Viers Mill	Ventilation & Heaters
	149	Lanham	AC Replacement
	156	Linden	Ventilation & Heaters
	159	Beech Road	Ventilation & Heaters
	169	Rossmoor – South	HVAC Upgrade
	171	Beverly Farms	Ventilation & Heaters
	173	Greenbelt Toaping Castle	Ventilation & Heaters
	175	Bladensburg	HVAC Upgrade
	176	Gallahan Road	Ventilation & Heaters
	178	Wildercroft	HVAC Upgrade
	183	Grant Avenue	Ventilation & Heaters
	185	Central Avenue	HVAC Upgrade

73083		
Year	**Substation**	**Work Performed**
	192 Longwood	Ventilation & Heaters
	194 Beltsville	Ventilation & Heaters
	199 Seek Lane	Ventilation & Heaters
	209 Derwood	HVAC Upgrade

f. The budget for ITN 66774 was derived to replace the two Motor Operated Disconnects (MODs) listed below at Pepco MD Sub 165. The two MODs were brought forward for replacement while conducting emergency repairs to the transmission system resulting from a small aircraft striking a transmission tower near Montgomery Air Park. The barred through disconnects prolonged the outage restoration time because crews could not properly isolate the lines with the disconnects out of service.

   - Disconnect 23023-B
   - Disconnect 23023

g. Budget for ITN 77205 is based on historical spending and not number of replacements, as costs and scope vary for each replacement. During the 2024 calendar year, there were 525 actual replacements inclusive of all transactions.

h. During the 2024 calendar year, there were 826 emergent restoration orders completed.

SPONSOR: Taiwo O. Alo

POTOMAC ELECTRIC POWER COMPANY
MARYLAND CASE NO. 9820
RESPONSE TO OPC DATA REQUEST NO. 15

QUESTION NO. 10
Please refer to Table ES-1: Investment Plan List By Category included in Schedule (TOA)-3 and explain whether any of the study results (nominal, real-discounted, WACC-Discounted) consider the costs that will be incurred by the ratepayer (i.e. taxes, return on equity, and stranded costs).

RESPONSE:

The Company notes that the Brattle analysis focused on the benefits of the Investment Plans and did not assess the impact to ratepayers. Based on the cost data provided by Pepco, the estimates include direct project costs (such as labor, material, contracting), allocations of company-level indirect costs (including overheads and material handling), and estimated AFUDC applied at the project level. However, these estimates do not reflect an anticipated rate of return on the specific capital investment or tax adjustments.

SPONSOR: Taiwo O. Alo