PUBLIC VERSION

BEFORE THE

PUBLIC SERVICE COMMISSION OF MARYLAND

	*	
IN THE MATTER OF THE APPLICATION		
OF BALTIMORE GAS AND ELECTRIC	*	CASE NO. 9888
COMPANY FOR ADJUSTMENTS TO ITS		
ELECTRIC BASE RATES	*	

*   *   *   *   *   *   *   *   *   *   *   *   *

DIRECT TESTIMONY

OF

PAUL J. ALVAREZ OF THE WIRED GROUP

ON BEHALF OF THE MARYLAND OFFICE OF PEOPLE'S COUNSEL

September 22, 2026

TABLE OF CONTENTS

Attached Exhibits

DIRECT TESTIMONY OF PAUL J. ALVAREZ

I. INTRODUCTIONS, PURPOSE, AND PREVIEW

Q. Please state your name and business address.

A. My name is Paul J. Alvarez, and my business address is PO Box 620756, Littleton, CO 80162.

Q. Please state your occupation.

A. I lead the Wired Group, a small consulting practice that specializes in distribution utility business planning, investment, operations and performance.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the Maryland Office of People's Counsel.

Q. What is the purpose of your testimony?

A. This testimony provides history and perspective on the instant Application by Baltimore Gas and Electric Company ("BGE" or "Company") to increase its base rates. It is intended to complement and support the Direct Testimony of OPC Witness Dennis Stephens, my Wired Group colleague. Mr. Stephens recommends $60.2 million in cost disallowances in his testimony.

Q. Please provide an overview of your professional background and education.

A. In 2001, after a career with several Fortune 500 companies in financial, product management, and marketing roles, I took my first electric utility industry position with Xcel Energy, one of the largest investor-owned utilities in the United States. As a product developer and then product development manager, I developed or oversaw the development of new demand-side management (DSM) programs for residential and commercial and industrial (C&I) customers, as well as programs and rates in support of voluntary renewable energy purchases and renewable portfolio standard compliance.

In 2008, I left Xcel Energy to establish a utility practice for a small sustainability consulting firm. There, I utilized the DSM program benefit measurement and verification (M&V) and cost-effectiveness testing experience I gained at Xcel Energy to lead two comprehensive evaluations of smart grid deployment performance.[1] To my knowledge, these were the first two of only five comprehensive evaluations of smart grid deployment performance ever completed.

I started the Wired Group in 2012 to focus exclusively on distribution utility investment, customer value creation, performance measurement, and regulation on behalf of consumer, business, and environmental advocates. On

[1] Col. Pub. Util. Comm'n, *Smart Grid City Demonstration Project Evaluation Summary*, Direct Testimony of Michael G. Lamb, Exhibit MGL-1, Docket No. 11A-100E (Dec. 14, 2011); Ohio Pub. Util. Comm'n, *Duke Energy Ohio Smart Grid Audit and Assessment*, Docket No. 10-2326-GE-RDR (June 30, 2011).

occasion I teach a graduate course on the electric utility industry at the University of Colorado's Global Energy Management Program, and a session on the pros and cons of various distribution utility ratemaking methods at Michigan State University's Institute for Public Utilities. I have authored and co-authored papers that have been published in The Electricity Journal, Public Utilities Fortnightly, and the ICER Chronicle (an industry regulator publication popular in Europe). I am also the author of *Smart Grid Hype & Reality: A Systems Approach to Maximizing Customer Return on Utility Investment,* a book published in 2014 and updated with a second edition in 2018. I received an undergraduate degree in finance and marketing from Indiana University's Kelley School of Business in 1983, and a master's degree in management from the Kellogg School at Northwestern University in 1991.

Q. Mr. Alvarez, have you testified previously before the Maryland Commission?

A. Yes. I first appeared before the Commission in 2014 on behalf of the Coalition for Utility Reform in Case No. 9361 regarding Exelon's proposed acquisition of Pepco.[2] More recently, I have testified with my Wired Group colleague Mr. Dennis Stephens on behalf of the Office of People's Counsel ("OPC") in multiple proceedings concerning Baltimore Gas and Electric Company's ("BGE") and Pepco's first and second multi-year rate plans ("MRP") (Case Nos. 9645 and 9692

[2] Coalition for Util. Reform, *Direct Testimony of Paul Alvarez*, ML#161223 (Case No. 9361, Dec. 8, 2014).

for BGE and 9655 and 9702 for Pepco). I also testified with Mr. Stephens in the year three annual reconciliation of Pepco's first multi-year rate plan (Case Nos. 9655 and 9702). Further, Mr. Stephens and I helped OPC develop comments in other proceedings, including one concerning distribution planning,[3] and one concerning COMAR 20.50.12 regulation updates.[4]

In the last ten years, I have also testified before 20 other state utility regulators in dozens of proceedings related to distribution grid and business investment, value creation, performance measurement, and regulation including Arizona, California, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Massachusetts, Michigan, Missouri, New Hampshire, New Jersey, North Carolina, North Dakota, Ohio, Oklahoma, Utah, Virginia, and Washington. My Curriculum Vitae, including all jurisdictional appearances, proceedings, and testimony dates, is attached as Attachment A.

Q. Please provide a preview of your panel testimony.

A. After the Introduction, Section II provides a history of relevant developments since the Commission first approved a pilot for multi-year ratemaking using forecasted test years and annual spending reconciliations in 2019. This history supplies important background as the Commission considers BGE's instant

[3] OPC, *Comments Regarding the NARUC-NASEAO Task Force's Recommended Distribution Planning* Process, ML# 234139, (PC 44, Mar. 11, 2021).
[4] OPC, *Comments on Staff's Recommended Modifications to COMAR 20.50 and 20.85*, ML# 300882, (RM 79, Jan. 13, 2023).

Application. Section III provides perspectives on capital spending intended to improve reliability and discusses a need for more aggressive Commission governance of distribution utility spending. These perspectives are important for the Commission to consider as it reviews the prudence of capital equipment for which BGE is requesting cost recovery.

Section IV addresses the prudence of BGE's decision to enter into an agreement with the City of Baltimore that essentially replaced lease payments for the use of City conduit with capital spending to rebuild portions of City conduit. I identify that BGE knew, or should have known, that the agreement was not structured in customer interest, and recommends an associated disallowance on that basis of $80.5 million.

Section V addresses the issue of refunds of Trump Administration import tariffs that the Supreme court invalidated. I recommend the Commission Order BGE to pursue refunds of such tariffs paid, and to properly reflect such refunds as reductions in rate base as appropriate.

Section VI is a review and conclusion, and presents a summary of recommendations.

II. BGE's HISTORIC TEST YEAR APPLICATION REFLECTS THE COSTS OF EXCESS MRP SPENDING

Q. Please preview this section of testimony.

A. Since BGE proposed to be the pilot utility for the multi-year ratemaking pilot the Commission authorized in 2019, the Commission and the Maryland General Assembly appear to have made significant progress on their collective thinking with respect to alternative utility ratemaking. In this section of testimony, I provide relevant history to document this progress, and also to gauge the accuracy of predictions Mr. Stephens and I have made in previous testimony and the prescience of associated positions OPC has adopted. I also provide observations regarding certain recommendations Mr. Stephens and I have made in previous testimony, and the accuracy of those observations in light of Mr. Stephens's and my recommendations in this case.

Q. Why is a discussion of MRP ratemaking relevant to this proceeding?

A. BGE's historical test year ("HTY") rate case immediately follows six years of rates set under the Commission's MRP framework. The capital investments reflected in BGE's HTY rate base, which underlie the company's rate increase, were incurred as part of BGE's second MRP. Thus, it is important to understand how the MRP framework, and the decisions to reflect certain forecasted capital investments in MRP rates, impacts the request BGE is asking the Commission to review.

In this section of testimony, I first note the benefits the Commission expected from multi-year ratemaking before reviewing the results of BGE's first and second MRPs. I also discuss the testimony Mr. Stephens's and I offered on BGE's initial MRPs and the concerns we raised about BGE's proposed capital spending.

Q. What were the Commission's goals for alternative and multi-year ratemaking?

A. In Case No. 9618, the Commission selected multi-year ratemaking as an alternative to historic test year ratemaking, established requirements for multi-year rate plans, and established a working group to address outstanding issues. In selecting multi-year ratemaking, the Commission identified perceived drawbacks in historic test year ratemaking and described multiple benefits from multi-year ratemaking as presented in Table 1 below.

Table 1: Commission goals for alternative ratemaking

Perceived Drawbacks of Standard Ratemaking[5]	Benefits of Multi-year Ratemaking[6]
Fails to equitably distribute risk	Reduces regulatory lag
Offers limited capabilities to monitor costs	Provides more predictable utility revenues and more predictable customer rates
Inhibits state policy achievement and utility innovation	Spreads rate changes over multiple years
Inhibits utility ability to earn the rate of return authorized (regulatory lag)	Reduces administrative rate case burdens
Inhibits transparency into planning	Offers more transparency into planning
Encourages 'iron in the ground' investments by utilities	Annual reconciliation adds cost monitoring with minimal customer risk

Q. How did OPC respond to these perceived drawbacks of standard ratemaking and stated benefits of multi-year ratemaking?

A. In January of 2020, OPC provided comments on the working group's progress (or lack thereof) to date.[7] OPC was concerned that a shift to multi-year ratemaking would lead to precipitous increases in capital spending and higher rates for customers. Noting the accelerated rate increase trajectory BGE had demonstrated since its acquisition by Exelon, OPC stated "Staff's proposal, where the utility with the information advantage develops the projections that form the basis of the

[5] Md. Pub. Serv. Comm'n, Order No. 89226, ML# 226375 (Case No. 9618, Aug. 9, 2019) at 52-53.
[6] *Id.* at 54.
[7] OPC, *Comments of the Maryland Office of People's Counsel on Chief Public Utility Law Judge Ryan C. McLean's Implementation Report*, ML# 228213 (Case No. 9618, Jan. 17, 2020).

rates, which are then trued-up to all actual costs and expenses, will only amplify this trend."[8]

Q. What was the next significant development?

A. In March of 2020, BGE submitted its first MRP—the first MRP filed by a Maryland utility under the Commission's MRP pilot. The MRP proposed very large increases in distribution capital spending. Indeed, between 2017 and 2023, annual distribution plant additions nearly doubled, from $197 million to $422 million.[9]

Q. As OPC's witnesses for BGE's MRP I, how did you and Mr. Stephens respond?

A. In evaluating BGE's MRP I, Mr. Stephens and I identified multiple projects and programs that were not required for safe and reliable service, and/or were premature, and/or were unlikely to provide benefits to customers in excess of customer costs. These included 4kV circuit conversions, substation physical security, prospective substation equipment replacement, planned cable replacement, and capacity expansion projects. We also opined that the use of forecasted test years transfers capital spending risk from shareholders to customers, implying that BGE inflated its capital spending plan as a result, and that increased oversight over BGE's spending plans was required. We

[8] *Id.* at 13.
[9] FERC Forms 1 submitted by BGE in Q1 2018 and Q1 2024 on 2017 and 2023 operations, respectively.

recommended \$384 million in reductions to BGE's spending plan, and a Commission proceeding to determine how intervenors could participate in BGE's spending plan development. We argued such participation would help replace governance over BGE spending that we claimed to be lost through forecasted test year ratemaking.[10]

Q. Did the Commission adopt your recommendations on BGE's MRP I?

A. No. Despite the concerns we raised regarding the use of forecasted test years, the Commission accepted BGE's forecasted test year rates subject to certain adjustments. The Commission rejected our recommended spending plan reductions for capacity expansion projects entirely. For the other four programs, recommended reductions were adopted only in part, by ordering BGE to spread costs proposed over three years to be spread over five years. The Commission also deferred a decision on participatory spending plan development (though it expressed an expectation that BGE improve transparency in future MRP proceedings).

Q. Please summarize the results of BGE's first MRP.

A. In 2021, BGE spending over and above the amounts anticipated in that year led to an electric revenue requirement shortfall of \$10.7 million.[11] In 2022, BGE

[10] OPC, *Panel Direct Testimony of Paul J. Alvarez and Dennis Stephens*, ML# 231484 (Case No. 9645, Aug. 14, 2020).
[11] BGE, *2021 Annual Informational Filing*, ML# 239918 (Case No. 9645, Mar. 31, 2022).

spending in excess of its MRP forecasts increased the amount of electric revenue requirement shortfall to $43.9 million.[12] As part of Case No. 9692, BGE asked the Commission to approve a rider to recover the revenue shortfalls reported for 2021 and 2022.[13] In 2023, BGE's excessive MRP spending resulted in an electric revenue shortfall to $78.9 million.[14]

Q. Are there other relevant developments in the early pilot years to report?

A. Yes. At about this same time, updates to COMAR 20.50.12, including minimum reliability performance requirements for Maryland utilities, were being considered. OPC expressed concern that Maryland's for-profit utilities, and the Exelon utilities in particular, would use increasing reliability performance standards as an excuse to spend more capital than necessary for safe and reliable service.[15] Despite these concerns, and despite excellent reliability performance by the Exelon utilities, the Commission approved increasingly strict reliability performance standards for Exelon utilities from 2024 through 2027 in July 2023.[16]

---

[12] BGE, *2022 Annual Informational Filing*, ML# 239918 (Case No. 9645, Mar. 31, 2023).
[13] BGE, *Supplemental Direct Testimony of Lynn K. Fiery*, ML# 302423 (Case No. 9692, Apr. 14, 2023).
[14] BGE, *2023 Annual Informational Filing*, ML# 239918 (Case No. 9645, Apr. 1, 2024).
[15] OPC, *Comments on Staff's Recommended Modifications to COMAR 20.50 and 20.85*, ML# 300882, (RM 79, Jan. 13, 2023) at 13-25.
[16] Md. Pub. Serv. Comm'n, *Final Minutes from July 19, 2023 COMAR Rulemaking Session 175* (RM 79, July 20, 2023).

Q. Were OPC's concerns that BGE's spending would unduly increase validated?

A. Yes. BGE filed its second MRP ("MRP II") in February 2023. The spending plans represented new record highs for the company. By 2026, BGE proposed annual distribution plant additions approached $600 million, or about three times the amount BGE had spent as recently as 2017.[17] Despite the fact that BGE's reliability performance was already excellent relative to other for-profit utilities in the US,[18] BGE proposed $570 million in capital spending to further improve reliability in its MRP II, representing a 49% increase over MRP I.[19]

Q. You and Mr. Stephens testified on BGE's MRP II, correct?

A. Yes. Again, we identified projects and programs that were not required for safe and reliable service, and/or were premature, and/or were unlikely to provide benefits to customers in excess of customer costs. These included City conduit, system hardening/resilience, prospective substation equipment replacement, capacity expansion, 4kV circuit conversion, planned cable replacement, fiber optic communications, project contingencies, and prospective substation equipment replacement programs, and we recommended $564 million in related

[17] OPC, *Panel Response Testimony of Paul J. Alvarez and Dennis Stephens*, ML# 303628 (Case No. 9692, June 20, 2023) at 13, Figure 1.
[18] From 2019 through 2023, BGE performance on the metric "System Average Interruption Duration Index without Major Event Days" was in the top quartile of US for-profit utilities in three years out of five, and missed the top quartile by just one utility in a fourth year. (Data from EIA Form 861).
[19] OPC, *Panel Response Testimony of Paul J. Alvarez and Dennis Stephens*, ML# 303628 (Case No. 9692, June 20, 2023) at 13, Figure 1.

disallowances.[20] Again, we expressed concerns that multi-year ratemaking and annual reconciliations discouraged for-profit utilities from exercising discipline over their spending. We also argued that the MRP pilot had not achieved most of the objectives the Commission had intended. Among other recommendations, we encouraged the Commission to terminate the pilot and the annual spending reconciliation, and to require risk-informed benefit-cost analyses for discretionary spending proposals.[21]

Q. Did the Commission adopt your recommendations on BGE's MRP II?

A. Only to a limited degree. The Commission did not terminate the pilot or the annual reconciliation, but it did recognize our concerns regarding the multi-year ratemaking and annual spending reconciliations for the first time,[22] and jump-started the MRP lessons learned proceeding.[23] It also adopted $207.7 million of the $564 million in MRP reductions we recommended.[24]

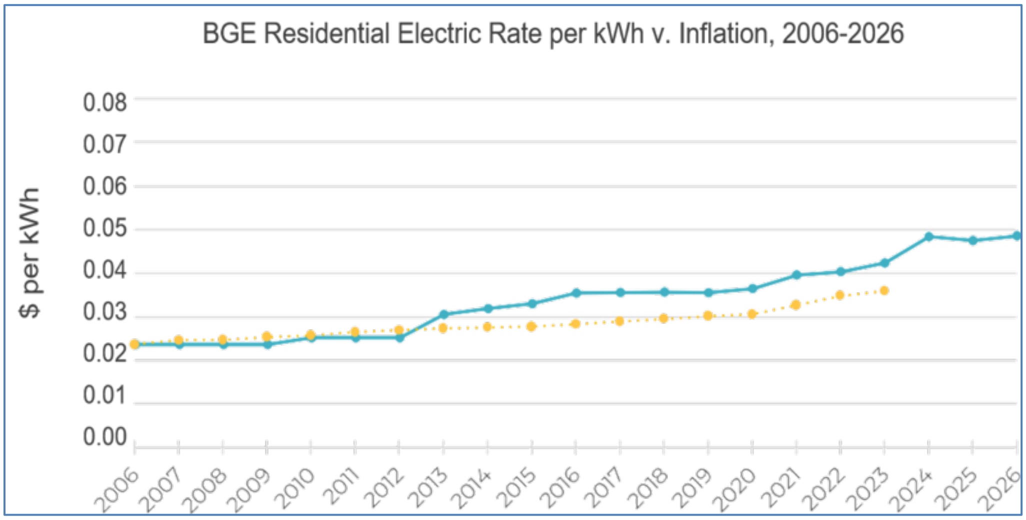
Q. Have there been any recent developments since the Commission issued its order accepting BGE's second MRP?

A. In June 2024, OPC published a report on utility bill rate increase history and drivers. Figure 1 below appeared in the report, indicating BGE residential electric

[20] *See generally, id.*
[21] *Id.*
[22] Md. Pub. Serv. Comm'n, Order No. 90948 (Case No. 9692, Dec. 14, 2023) at 9-10.
[23] *Id.* at 11.
[24] *Id.* at 83-86 (Resilience Investment Plan, $109 million); at 86-89 (Contact Voltage truck, $17.5 million); at 111-113 (Fiber Optic communications, $81.2 million).

rates have exceeded inflation since the Exelon merger (2012), especially since the introduction of multi-year ratemaking and annual reconciliations (2020).[25]

Figure 1: BGE residential electric rates per kWh over time as reported by OPC



Q. Why is it important to consider BGE's prior MRPs in this proceeding?

A. The concerns we repeatedly raised about Maryland's experiment with forecasted test year rates have been corroborated. The significant and excessive increases in capital spending we repeatedly warned the Commission about underlie BGE's requested rate increase in this proceeding. Given the prescience of our past recommendations to curb excessive spending, we urge the Commission to consider the concerns we raised when evaluating the prudency of that spending in this proceeding. The next section of this testimony provides additional

[25] OPC, *Maryland's Utility Rates and Charges* (June 2024), at 10, available at https://opc.maryland.gov/Consumer-Learning/Utility-Rates-and-Basics.

perspectives that I hope will encourage the Commission to more rigorously challenge BGE's decisions to spend capital.

III. PERSPECTIVES ON CAPITAL SPENDING TO IMPROVE RELIABILITY

Q. Please preview this section of testimony.

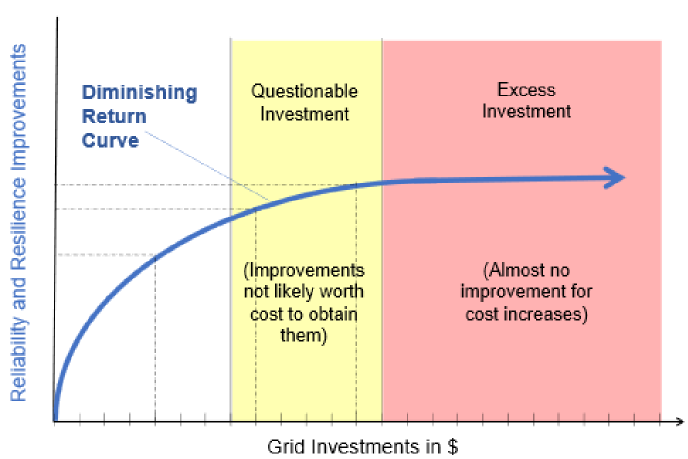
A. This testimony provides two perspectives for Commission consideration as it considers the cost disallowances OPC Witness Stephens recommends in his testimony. First, I discuss the law of diminishing returns and how it applies to discretionary utility spending intended to improve reliability. I will present evidence that the law of diminishing returns applies to capital spending by Exelon utilities in Maryland, and to BGE specifically. Second, I will describe the imperative for the Commission to more aggressively scrutinize discretionary distribution utility capital spending now given cost pressures likely to appear on Maryland customers' electric bills in the future.

Q. What is the law of diminishing returns?

A. The law of diminishing returns is one of the oldest principles in the economics discipline. It states that as inputs (such as capital) to a business or production process increase, each additional input yields incrementally lower additional output. Followed to its logical conclusion, the law of diminishing returns predicts that at some point, additional inputs are counter-productive. At that point, known as the point of diminishing return, the added inputs cost more than the additional outputs are worth (meaning that additional inputs are no longer cost-effective at increasing outputs).

While a business competing in a regulated market would never invest past the point of diminishing return, the capital bias[26] of for-profit utilities using cost-of-service ratemaking encourages such utilities to do so. Only regulation, and cost-of-service ratemaking features like regulatory lag and cost disallowance risk, discourage a for-profit utility like BGE from investing beyond the point of diminishing returns in reliability. Figure 2 below presents the law of diminishing returns in the context of a distribution utility's reliability improvement spending.[27]

Figure 2: The law of diminishing returns applied to utility spending intended to improve reliability



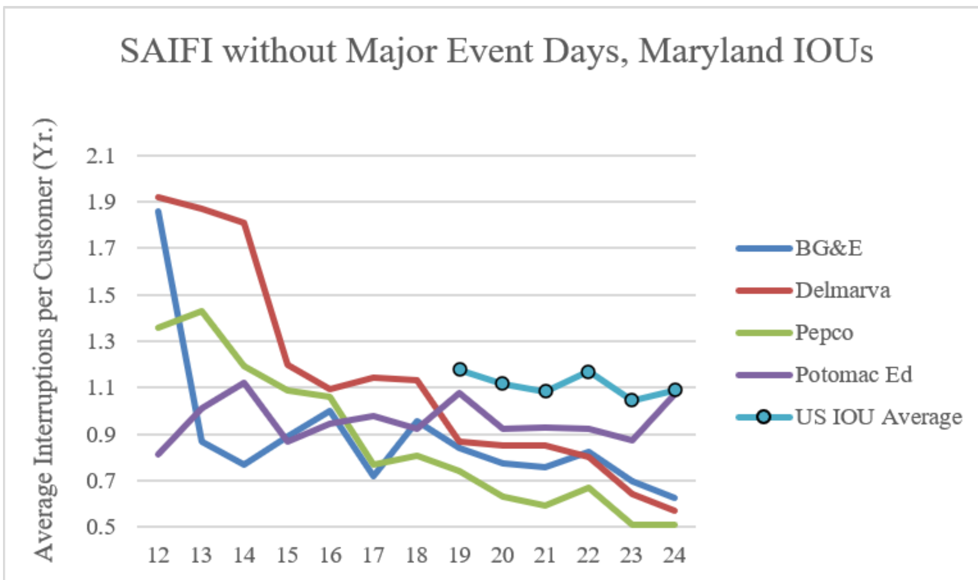
[26] Averch H. & Leland J., *Behavior of the Firm Under Regulatory Constraint*, 52 The American Economic Review 5 (Dec. 1962) at 1052-1069.

[27] Alvarez P, Costello K, Ericson S, Stephens D., *Alternative ratemaking in the US: A prerequisite for grid modernization or an unwarranted shift of risk to customers?*, 35 The Electricity Journal 9 (Nov. 2022).

Q. What evidence do you have that indicates the law of diminishing returns applies to Exelon utilities' capital spending on reliability in Maryland?

A. Figure 3 below charts the trends in System Average Interruption Frequency Index for Maryland's for-profit utilities[28] since the introduction of reliability standards (COMAR 20.50.12). Note that the trends of all three Exelon utilities closely mirror the shape of the diminishing returns curve.

Figure 3: System Avg. Interruption Frequency, Maryland for-profit utilities, 2012-2024.



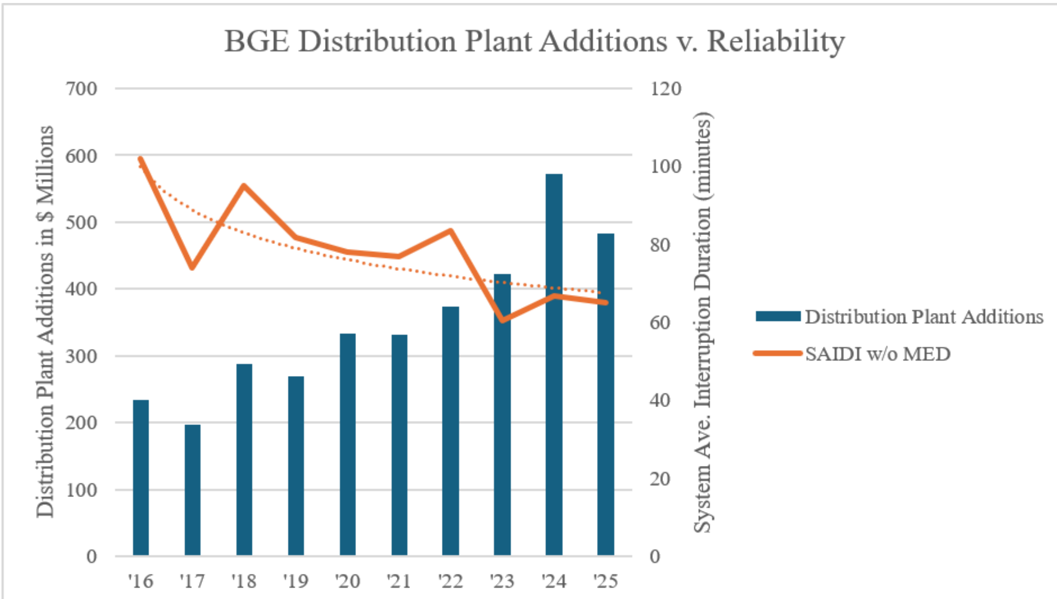
Q. What evidence do you have that indicates the law of diminishing returns applies to BGE's capital spending on reliability improvements?

A. Figure 4 below compares BGE distribution plant placements into service to system average interruption duration index without major event days 2016-2025.[29] Not

[28] *See* Case Docket 9353, Utilities' Annual Performance Reports. The US IOU Average is from for-profit utility Forms 861 filed annually with the US Energy Information Administration.
[29] Distribution plant additions sourced from BGE's FERC Forms 1 2016-2025. SAIDI w/o MED (major event day) data from BGE's Annual Performance Reports filed in Case No. 9353.

only does BGE's reliability performance trend mimic the shape of the diminishing returns curve, note that the Company's reliability performance improvements appear to be slowing despite rapidly-increasing distribution capital spending.

Figure 4: BGE distribution plant additions v. reliability performance, 2016-2025.



Q. Why is it important for the Commission to increase scrutiny of discretionary distribution utility spending now?

A. The goals the General Assembly has established for Maryland's energy and environmental future are somewhat aggressive. I applaud these goals, but as a utility expert, I also recognize that capital investment will be required to achieve them. Maryland's electric customers will be asked to cover the cost of this investment. Capital investment may also be required to accommodate growing data center loads, and as the Commission is undoubtedly aware, the impact of data center load growth has already begun to appear on Maryland customers' electric bills.

Q. What are the goals the General Assembly has established for Maryland's energy and environmental future?

A. The Climate Solutions Now Act of 2022 requires a 60% reduction from statewide greenhouse gas emissions in 2006 by 2031, and net zero emissions by 2045.[30] The Department of the Environment has developed a Climate Pollution Reduction Plan to achieve these requirements. Citing both state law and Department policies and programs, the Plan includes:

- Renewable portfolio and clean energy standards, which require 50% of electricity consumed in Maryland to be generated by renewable resources by 2030 and 100% to be generated by renewables by 2035 (respectively);
- The Power Act, which sets a goal of 8,500MW of off-shore wind capacity by 2031;
- A number of programs to rapidly increase electric vehicle adoption;
- The Zero Emission Heading Equipment Standard, which will begin requiring electric heat pumps instead of fossil-fueled heating later this decade.

Q. Will these laws and plans require investments in electric generation, transmission, and distribution ("G, T, and D") capacity?

A. Yes. The Department's plan claims these increases in electric costs will be offset by savings, health, and productivity gains elsewhere, but the bottom line for electric customers is that increasing investment in G, T, and D capacity will put upward pressure on electric bills. Renewable generation generally, and offshore wind specifically, will cost capital to build and will require new transmission

[30] Md. Dep't of the Env't, *Maryland's Climate Pollution Reduction Plan* (Dec. 28, 2023), available at https://mde.maryland.gov/programs/air/ClimateChange/CPRP/Pages/Overview.aspx.

capacity. Indeed, renewable generation inherently requires increases in transmission capacity (to better accommodate intermittency). While most electric vehicle charging occurs at night, some charging occurs during the day, when available generation and transmission capacity are both lower. All of this will require increased investment in electric G, T, and D capacity, placing upward pressure on electric customers' bills.

Q. What do you think the Commission can or should do to help keep electric bills low as the state attempts to achieve its environmental goals?

A. I believe the Commission should consider distribution utility rate increases as a precious commodity to be utilized only when necessary. A dollar of rate increase avoided today represents "gas in the tank" that could be available to address capital investment needs that arise in the future. Discretionary capital spent today will increase bills over the next forty years or so (the depreciation period of most electric distribution utility equipment). Adequate stewardship of customer dollars avoids discretionary utility capital spending that is not required for safe and reliable service, that is premature, or that is cost-ineffective for its intended goals.

Q. What can the Commission do to begin adopting this perspective?

A. As my previous testimony before the Commission indicates, avoiding ratemaking methods that discourage utility capital spending self-discipline, such as methods that reduce regulatory lag and cost disallowance risk, would be a good place to start. Another recommendation is to require risk-informed benefit-cost analysis, which OPC Witness Stephens demonstrates in his testimony, for discretionary utility capital projects and programs intended to improve reliability. For example, had such a requirement been in place as BGE developed its MRP II, many if not all of the capital projects and programs Mr. Stephens recommends for disallowances would likely never have been proposed. The risk-informed equation required by the California Public Utilities Commission to estimate the dollar-value of discretionary reliability and safety projects and programs is presented below.[31]

$$\text{Annual Value of Risk Reduction (in \$)} = \text{Annual Adverse Event probability \%} \times \text{Reduction in probability \% as a result of investment} \times \text{Consequence of the Adverse Event (in \$)}$$

Q. But what can the Commission do to begin adopting the 'scarcity' perspective you recommend in the instant proceeding?

A. I recommend the Commission adopt the cost disallowances Mr. Stephens recommends in his testimony. I believe Mr. Stephens accurately identifies BGE projects and programs that are inadequately supported, premature, unnecessary, or cost-ineffective. These are all appropriate grounds for imprudence findings. But

[31] Ca. Pub. Util. Comm'n, Decision 22-12-027 (Rulemaking R.20-07-013, Dec. 15, 2022), Appendix A, page A-13, item 13.

moreover, cost disallowances encourage utilities to increase capital spending self-discipline in the future.

In its Order approving a multi-year rate plan pilot, the Commission stated: "[t]he proposed project list and individual project costs would not be pre-approved by the Commission . . . ."[32] As we see it, MRPs intend to establish a basis for future rates; the Commission specifically intended that multi-year rate plans used to establish future rates should not serve as an advance determination of prudence for projects and programs within those plans. This proceeding provides the Commission with an opportunity to clarify its position on this issue, and I believe the disallowances OPC Witness Stephens has identified and supported as imprudent are as appropriate a means to do so as any.

IV. THE PRUDENCE OF BGE'S DECISION TO REBUILD CITY CONDUIT

Q. Please preview this section of testimony.

A. This section of testimony addresses the prudence of BGE's decision to effectively replace lease payments to the City for the use of the City's underground conduit with capital spending to rebuild parts of the City's conduit. I will recommend the Commission disallow the $80.5 million in conduit rebuild capital cost recovery BGE is requesting in its Application on the basis that the decision to enter into the Agreement was imprudent.

[32] Md. Pub. Serv. Comm'n, Order No. 89482 (Case No. 9618, Feb. 4, 2020), at 24.

Q. Please provide a brief background on BGE's decision to replace lease payments to the City with capital spending to rebuild parts of the City's conduit.

A. As the Commission is aware, the City requires BGE to put its cables in the City's conduit in exchange for lease payments. As I understand it, in 2022, BGE and the City entered negotiations regarding the expiring conduit access agreement between the City and BGE. According to BGE, the City demanded large increases in the lease payments for 2023-2026, and that such payments were "north of $300 million" (for a seven-year term that included a three-year extension option).[33] It is appropriate for BGE to negotiate lower costs that its customers must cover. And while I imagine BGE may have been frustrated by the negotiations, those negotiations have apparently existed since 1903.[34] Here, BGE saw an opportunity to transform costs that did not earn a return—O&M expenses in the form of lease payments to Baltimore City—to capital expenditures that did. The opportunity to increase its profits by turning an O&M expense into a capital expense likely contributed to BGE's decision to pursue conduit rebuilding over lease payments in its negotiations with the City. But this does not relieve BGE of its responsibility to construct any such agreement with the City in customer interest.

[33] BGE, *Direct Testimony of John C. Frain*, ML# 331766 (Case No. 9888, July 2, 2026) at 30:12 ("Frain Direct").
[34] *Id.* at 49:14.

Q. Please summarize the agreement BGE negotiated with the City.

A. The contract between BGE and Baltimore City reduced the amount BGE paid directly to the City for access to and use of the conduit system. Payments from BGE to the City had been averaging about $28 million annually, but under the new contract, direct payments were only $14 million in 2023, and $1.5 million annually from 2024-2026. In exchange for these reductions, the Company agreed to spend a minimum of $120 million to rebuild parts of the City's conduit system by December 31, 2026. The contract also provided for an optional renewal period from 2027 to 2029, with an additional $92 million in conduit rebuild capital spending commitments from BGE.[35]

Q. When entering into the Agreement with the City, what types of analyses did BGE complete to determine that conduit rebuild capital spending would deliver benefits to customers in excess of costs to customers?

A. None that I am aware of. The analysis BGE provided in discovery reveals only that customer revenue requirements would be lower in 2024-2026 than if BGE continued to make lease payments to the City.[36] BGE did not complete any analysis indicating that the benefits of $120 million in conduit rebuild capital spending called for in the Agreement would exceed customer costs until the Commission required such an analysis. BGE appears to have simply assumed that

[35] Exhibit PJA-3 (BGE Response to Staff DR 6-16, Attachment 1).
[36] Exhibit PJA-3 (BGE Response to OPC DR 12-58(h); BGE Response to OPC DR 2-7, Attachment 1); Exhibit PJA-2 (BGE CONFIDENTIAL Response to Staff DR 17-37, Attachment 1).

rebuilding conduit would be in customer interest without completing any analysis. No business that I know of (other than a regulated for-profit utility that perceives its cost disallowance risk to be low) would consider spending hundreds of millions of dollars over seven years, or even $120 million over three years, without first completing extensive financial analysis, including a benefit-cost analysis ("BCA").

Q. How much is the conduit rebuilding cost for which BGE requests recovery in its Application?

A. BGE is requesting recovery of $80.5 million in conduit rebuild capital spending,[37] as well as interest expense, profits, and income taxes on top of that spending.

Q. What arguments did you make in support of your recommendation that the Commission eliminate conduit rebuild spending from the MRP II BGE used to calculate rates 2024-2026?

A. Mr. Stephens and I made several arguments, including

- That BGE was spending capital on an asset the Company did not own;
- That in the long run, customers pay more for BGE capital spending than they do for BGE O&M spending, due to interest expense, profits, and income taxes on profits that customers must cover on capital spending;
- That underground cable in conduit is generally more reliable than overhead circuits, meaning that the value of reliability improvements available might not be adequate to exceed the BGE capital spending cost premium BGE customers must pay;

[37] Frain Direct, JCF-7 Electric Distribution Plant Additions, Cell D13.

- That the Agreement provided no ongoing rights to use the conduit system (at least in part) in exchange for the significant conduit rebuild spending to which BGE committed; and
- That upon expiration of the Agreement, customers would end up paying for the cost of two contracts with the City at once, consisting of 1) recovery of BGE capital spent to rebuild conduit during the Agreement's term, likely to last 40 years; and 2) payments to the City for BGE's continued use of the City's conduit for subsequent lease periods.[38]

Q. Was the Commission receptive to these arguments?

A. In part. Though the Commission did allow BGE to include conduit rebuild spending in the MRP II used to calculate rates 2024-2026, it recognized the concerns expressed by Mr. Stephens and myself, and by other parties. The Commission reiterated that the conduit rebuild spending would be subject to a prudence review in the future, and required BGE to complete a benefit-cost analysis of the spending at the time cost-recovery is requested.[39] That cost recovery request, prudence review, and benefit-cost analysis are all part of BGE's Application, and it is now time for the Commission to render a decision on the prudence of BGE's decision to enter into an agreement with the City that replaced lease payments with capital spending to rebuild conduit the Company does not own.

[38] OPC, *Panel Response Testimony of Paul J. Alvarez and Dennis Stephens*, ML# 303628 (Case No. 9692, June 20, 2023) at 49:20 to 53:10.
[39] Md. Pub. Serv. Comm'n, Order No. 90948 (Case No. 9692, Dec. 13, 2023) at 101-102.

Q. What new information has come to light since you last testified on this issue?

A. The new information that has come to light reveals that Mr. Stephens and my concerns have proven prescient:

- Baltimore City chose not to extend the Agreement, thereby terminating it effective January 1, 2027. If the Commission finds BGE conduit spending prudent, beginning in 2027 and for roughly the next four decades, BGE customers will pay for the both the cost of conduit capital spending BGE is requesting (roughly $18.1 million for 2027 per BGE's BCA)[40] and any subsequent lease payments for conduit use BGE will be required to pay.
- Despite the unsupported assumptions used to develop the BCA, which OPC Witness Stephens reports in his Direct Testimony likely exaggerates benefits and understate costs, BGE's BCA represents a very thin benefit-cost ratio to customers of just $1.15 in benefits for every $1.00 in cost;
- BGE still does not know the frequency with which City conduit condition has caused or extended underground cable in conduit service interruptions historically,[41] casting significant doubt as to the reliability improvement assumptions BGE used to develop the BCA;
- BGE estimates the 'cost of capital' premium customers must pay at 28%.[42]

---

[40] Frain Direct, BGE Conduit BCA Business Case_ Explanatory Model-FINAL. Tab "Revenue Requirement", Cell K104.
[41] Exhibit PJA-1 (BGE Response to OPC DR 4-1).
[42] Frain Direct, BGE Conduit BCA Business Case_ Explanatory Model-FINAL. Tab "Overall Results", Cell C14 (present value of the revenue requirement, at $274 million) less cell C4 ($21.3 million in O&M spending) compared to BGE conduit capital spending ($198.0 million per Cell C5).

Q. Are you aware that the Commission cannot use hindsight to determine the prudence of a utility's spending decisions?

A. Yes. But the facts known to BGE at the time the company executed the new agreement with the City indicate that a reasonable utility manager could not have concluded that the terms and conditions of the new agreement would be beneficial to customers. As examples, before entering into an agreement with the City to replace lease payments with conduit capital spending:

- BGE knew, or should have known, that it was committing customers to recovery of long-lived capital expenditures over at least 40 years, despite the limited, seven-year contractual arrangement governing its payments to Baltimore City;
- BGE knew, or should have known, that an agreement providing no ongoing rights to use the conduit system (at least in part) in exchange for the significant conduit rebuild spending to which BGE committed missed opportunities to reduce lease payments for customers in the future;
- BGE knew, or should have known, that at whatever point the City failed to renew the Agreement, thereby returning BGE to a lease payment construct, BGE customers would end up paying for the cost of two contracts with the City at once;
- BGE knew, or should have known, the historical frequency with which City conduit condition has caused or extended underground cable in conduit service interruptions historically;[43] and

[43] Exhibit PJA-1 (BGE Response to OPC DR 4-1).

- BGE should have completed a BCA on conduit capital spending using historical reliability data to inform baseline and reliability improvement estimates.

Q. What do these observations indicate to you?

A. These observations indicate that BGE entered into the Agreement with shareholder interest in mind and in disregard for the interests of its customers. These observations, combined with observations in Mr. Stephens's Direct Testimony, confirm that the Agreement was indeed not in customer interest as constructed, and that BGE knew this, or should have known this, at the time.

Q. What is your recommendation to the Commission regarding BGE's request to recover $80.5 million in conduit rebuilding capital cost from customers?

A. I recommend the Commission reject this request in its entirety due to BGE's imprudent decision to enter into an Agreement that was not in customer interest.

V. REFUNDS OF IMPORT TARIFFS SUBSEQUENTLY INVALIDATED

Q. Please identify the import tariffs that were subsequently invalidated.

A. As the Commission may be aware, the Trump Administration implemented a variety of tariffs on imported goods on April 1, 2025 under the authority of the International Emergency Executive Powers Act ("IEEPA"). The US Supreme Court later invalidated these tariffs. It is my understanding that US businesses are seeking refunds of IEEPA tariffs paid to US Customs and Border Protection. It is also my understanding that a significant proportion of the capital equipment many electric distribution utilities in the US install, from substation power transformers and distribution line transformers to switches and circuit breakers, are manufactured overseas. It is therefore likely that BGE incurred costs related to imported equipment subject to the IEEPA tariffs.

Q. What is your concern regarding the costs BGE likely incurred as a result of these tariffs?

A. As a regulated utility with costs covered by customers, my concern is that BGE may not be motivated to pursue refunds of invalidated tariffs paid to the degree that businesses operating in competitive markets might be. Further, to the extent BGE pursues and receives such refunds, it is not necessarily clear that those refunds would be applied in the Company's books and records in such a way as to reduce the rate base on which BGE costs of capital, including interest and profits customers are asked to cover, are calculated. (It is my understanding that ancillary costs associated with equipment placed into service, such as shipping and handling, installation, and any sales taxes or import tariffs paid, are added to rate base along with the cost of the equipment itself when such equipment is placed into service.)

Q. Will it be difficult for BGE to pursue refunds on invalidated IEEPA tariffs?

A. In some cases no, but in other cases yes. Securing refunds from US Customs and Border Protection on these payments may be relatively straightforward, as I understand the agency has established a process and an online tool that importers of record may use to make refund requests. However, it appears that all of the imported equipment BGE acquired during the effective IEEPA tariff time period was purchased through distributors or other importers of record. (Invalidated IEEPA tariffs were assessed on imported equipment from April 1, 2025 through February 24, 2026.) These intermediaries may have included extra fees on their invoices to BGE to cover IEEPA tariffs, or they may have simply inflated equipment prices to cover IEEPA tariffs. BGE will have to expend extra effort to secure refunds of IEEPA tariff fees or IEEPA tariff-related equipment price increases from these intermediaries. But this is not impractical; BGE has already recovered small refunds of IEEPA tariffs the Company has paid indirectly through its suppliers.[44]

Q. What are your recommendations to the Commission on this issue?

A. I recommend the Commission Order BGE to use reasonable means to pursue refunds of IEEPA tariffs the Company paid directly, as well as to pursue refunds of IEEPA-related equipment cost increases from intermediary suppliers. I also recommend the Commission Order BGE to apply all such refunds received as reductions to rate base, and to report the Company's efforts to pursue such refunds. I recommend such 'effort reports' cover the period from February 24,

[44] Exhibit PJA-1 (BGE Response to OPC DR 8-1).

2026 until the point at which the cost of refund pursuit begins to exceed the amount of the refunds likely to be recovered.

VI. REVIEW AND CONCLUSION

Q. Please review your testimony.

A. After the introduction, Section II provided a history of relevant developments since the Commission first approved a pilot for multi-year ratemaking using forecasted test years and annual spending reconciliations in 2019. This history supplied background information I believe to be important as the Commission considers BGE's instant Application. Section III provided perspectives on capital spending intended to improve reliability, and communicated a sense of urgency for more aggressive Commission governance of distribution utility spending. I recommended the Commission Order BGE to complete risk-informed benefit-cost analysis on capital projects and programs intended to improve reliability in the future.

Section IV addressed the prudence of BGE's decision to effectively replace lease payments to the City for the use of the City's underground conduit with capital spending to rebuild parts of the City's conduit. I recounted my positions on this issue from my testimony on BGE's MRP II, and provided additional support and context for those positions as they have come to light in the past three years. I recommended the Commission disallow the $80.5 million in conduit rebuild capital cost recovery BGE is requesting in its instant Application on the basis that BGE knew, or should have known, that the Agreement with the City was not in customer interest as constructed, and therefore imprudent.

Section V addressed Trump Administration import tariffs that the Supreme Court subsequently invalidated, prompting refund opportunities. I recommended the Commission require BGE to pursue those opportunities, including on imported equipment procured through intermediaries that might be more difficult for BGE to pursue. I also recommended the Commission Order BGE to appropriately reflect any such refunds as rate base reductions.

Q. Does this conclude your direct testimony?

A. Yes, it does.

Curriculum Vitae -- Paul J. Alvarez MM, NPDP

Wired Group, PO Box 620756, Littleton, CO 80162. palvarez@wiredgroup.net 303-997-0317

Profile

After 15 years in Fortune 500 product development and product management, including P&L responsibility, Mr. Alvarez entered the utility industry in 2001 by way of demand-side management rate and program development, marketing, and impact measurement for Xcel Energy. He went on to design renewable portfolio standard compliance and distributed generation rates and incentive programs for the utility. These experiences led to unique projects involving the measurement of grid modernization costs and benefits (energy, capacity, operating savings, revenue capture, reliability, environmental, and customer experience), which revealed limitations in experimental ratemaking models with respect to for-profit utility spending governance. Since 2012 Mr. Alvarez has led the Wired Group, a boutique consultancy serving consumer, business, and environmental advocates, and regulators in matters of distribution planning, spending, investment, performance measurement, and related ratemaking practices.

Appearances and Research Projects in Regulatory Proceedings

Evaluate the Prudence of Capital Spending by Evergy Missouri Metro. Panel testimony with David C. Shapley on behalf of the Office of Public Counsel in PSC Case No. ER-2026-0143. June 30, 2026.

Examine Commonwealth Edison Company 2028-2031 Grid Plan. Panel testimony with Dennis Stephens on behalf of the Illinois Attorney General in ICC Case No. 26-0047. May 14, 2026.

Examine Ameren Illinois Company 2028-2031 Grid Plan. Panel testimony with Dennis Stephens on behalf of the Illinois Attorney General in ICC Case No. 26-0051. May 7, 2026.

Examine APS Rate Increase Request and Formula Rate Plan Proposal. Testimony on behalf of AARP in Arizona Corporation Commission docket E-01345A-25-0105. March 2, 2026.

Evaluate spending under the Infrastructure, Safety, Reliability, and Electrification Mechanism (annual capital tracker reconciliation). Massachusetts Electric and Nantucket Electric Companies (National Grid). Panel Testimony with Dennis Stephens on behalf of the Massachusetts Attorney General. DPU 25-70. January 30, 2026.

Review Dominion Transportation Electrification Plan. Testimony on behalf of a group of environmental and consumer advocates in Virginia SCC PUR-2025-00022. September 9, 2025.

Review DTE spending justification models and alternative ratemaking practices. Testimony on behalf of a group of environmental and consumer advocates in Michigan PSC U-21860. August 22, 2025.

Review Performance Metrics, Targets, Incentives and Penalties for Multi-Year Rate Plans. Testimony on behalf of the Illinois Attorney General in ICC Case Nos. 25-0574 and 25-0514 (Ameren Illinois and Commonwealth Edison, respectively). July 22, 2025 and July 28, 2025 respectively.

Review the Prudence of Commonwealth Edison's Investments in a Telecommunications Network in Annual MYRP Rate Reconciliation. Testimony on behalf of the Illinois Attorney General in ICC Case No. 25-0383. July 15, 2025.

Review of Distribution Investments and Performance Criteria for Additions to Rate Base as Requested by NStar Gas Company. Joint testimony with Nicholas Onysczcak on behalf of the Attorney General in Massachusetts DPU Case No. 24-134. June 20, 2025.

Context and Perspective on Rocky Mountain Power's 2023 Wildland Fire Protection Plan. Testimony on behalf of the Office of Consumer Services in Utah 24-035-04. February 14, 2025.

Evaluate Cost Containment, Recovery, and Prudence Review Processes Associated with Utilities' Electric Sector Modernization Plans. Joint Direct Testimony with Dennis Stephens on behalf of the Attorney General in Massachusetts DPU Case Nos. 24-10, 24-11, and 24-12. January 30, 2025.

Evaluate the Prudence of Pepco Spending in Annual MYRP Rate Reconciliation. Panel Testimony with Dennis Stephens on behalf of the Office of People's Counsel in Maryland PSC Case No. 9655. November 15, 2024.

Examine Duke Energy's Request to Continue, Expand, or Initiate Various Riders in its Electric Security Plan. Testimony on behalf of the Office of Consumer Counsel in Ohio OUC Case No. 24-278-EL-SSO. October 23, 2024.

Recommendations for Commonwealth Edison Beneficial Electrification Plan. Panel testimony with C. Andre Gouin on behalf of the Attorney General in Illinois Commerce Commission Case No. 24-0484. September 27, 2024.

Recommendations for Ameren Illinois Beneficial Electrification Plan. Panel testimony with C. Andre Gouin on behalf of the Attorney General in Illinois Commerce Commission Case No. 24-0494. September 27, 2024.

Evaluate Public Service Oklahoma Application for Rate Increase & Changes in Cost Recovery for Some Expense Types. Testimony on behalf of Commission Staff in PUD 2023-000086. July 29, 2024.

Evaluate DTE Energy's Request for Rate Increase, and to Extend and Expand Rider IRM. Testimony on behalf of a group of environmental and consumer advocates in Michigan PSC U-21534. July 26, 2024.

Determine If Customer Interest Is Served by Smart Meter Stipulation. Testimony before the Ohio PUC on behalf of the Office of Consumer Counsel. Ohio PUC 22-0704-EL-UNC. June 11, 2024.

Evaluate Commonwealth Edison Company's Refiled Grid Plan. Panel Testimony with Dennis Stephens on behalf of the Attorney General in Illinois Commerce Commission Case No. 23-0055. May 23, 2024.

Evaluate Ameren Illinois Company's Refiled Grid Plan. Panel Testimony with Dennis Stephens on behalf of the Attorney General in Illinois Commerce Commission Case No. 23-0082. May 13, 2024.

Evaluate Oklahoma Gas & Electric's historical spending. Testimony on behalf of Oklahoma Corporation Commission Staff in PUD-2023-000087. April 26, 2024.

Evaluate National Grid's historical and proposed distribution spending. Panel testimony with Dennis Stephens on behalf of the Attorney General in Massachusetts DPU Case 23-150. March 29, 2024.

Evaluate Pepco's Second Multi-Year Rate Plan. Panel testimony with Dennis Stephens on behalf of the Office of People's Counsel in Maryland PSC Case No. 9702. December 15, 2023.

Evaluate First Energy's Application to Continue Grid Mod I Program Spending in Grid Mod II. Testimony on behalf of the Ohio Consumers' Counsel in Ohio PUC Case No. 22-0704. October 23, 2023

Evaluate BGE's Second Multi-Year Rate Plan (Electric Distribution Components 2024-2027) and Electric Distribution Spending 2021-2022. Panel testimony with Dennis Stephens on behalf of the Office of People's Counsel in Maryland PSC Case No. 9692. June 20, 2023.

Evaluate DTE Energy's Request for Strategic Capital Plan Cost Recovery and Infrastructure Recovery Mechanism Rider on behalf of the Attorney General and a group of environmental and consumer advocates in Michigan PSC U-21297. June 13, 2023.

Evaluate Commonwealth Edison's Multi-year Grid Plan. Panel testimony with Dennis Stephens on behalf of the Attorney General in Illinois Commerce Commission 22-0486. May 22, 2023.

Evaluate Ameren Illinois Corporation's Multi-year Grid Plan. Panel testimony with Dennis Stephens on behalf of the Attorney General in Illinois Commerce Commission 22-0487. May 11, 2023.

Evaluate Public Service Oklahoma's $450 million Grid Enhancement and Resilience Plan and Request for Rider Cost Recovery from a Policy Perspective. Testimony on behalf of the Attorney General in PUD-2022-000093. March 7, 2023.

Evaluate Duke Energy's Peak-time Rebate Pilot Results. Testimony on behalf of the Attorney General before the Kentucky PSC in 2022-00251. November 9, 2022.

Evaluate Georgia Power's Transmission & Distribution Spending Proposals. Panel testimony with Dennis Stephens on behalf of Public Interest Advocacy Staff. Georgia PSC 44280. October 20, 2022.

Evaluate Pacific Gas & Electric's 2023-2026 Multi-year Rate Plan. Panel testimony with Dennis Stephens on behalf of AARP. California PUC A.21-06-021. June 10, 2022.

Evaluate the Distribution Business Components of Georgia Power Company's Integrated Resource Plan. Panel testimony with Dennis Stephens on behalf of Public Interest Advocacy Staff. Georgia PSC 44160. May 6, 2022.

Evaluate Policy Issues and Precedents Associated with Oklahoma Gas & Electric Company's Grid Modernization Factor. Testimony on behalf of the Office of Attorney General in PUD 2021000164. April 27, 2022.

Evaluate Grid Modernization and Advanced Metering Proposals by Massachusetts Utilities. Panel testimonies with Dennis Stephens on behalf of the Office of Attorney General in D.P.U. 21-80, 21-81, and 21-82. January 19, 2022.

Evaluate Dominion's Grid Transformation Plan. Testimony on behalf of Appalachian Voices/Southern Environmental Law Center. Virginia SCC PUR-2021-00127. September 13, 2021.

Investigate Avista Utilities' Electric Distribution and Wildfire Spending, Plans, and Processes. Panel testimony with Dennis Stephens on behalf of Public Counsel. WUTC 200900. April 29, 2021.

Evaluate Kentucky Utilities/Louisville Gas & Electric's CPCN to Install Advanced Meters. Testimony on behalf of the Attorney General. Kentucky PSC 2020-00349/00350. March 5, 2021.

Examine Potomac Electric Power Company's Electric Distribution Spending and Plan. Panel testimony with Dennis Stephens on behalf of the Office of People's Counsel. MD PSC 9655. March 3, 2021.

Determine If Customer Interest Is Served by Smart Meter Stipulation. Testimony before the Ohio PUC on behalf of the Office of Consumer Counsel. Ohio PUC 18-1875-EL-GRD. December 17, 2020.

Critique Public Service Electric & Gas Company's Smart Meter Deployment Plan. Testimony before the New Jersey Board of Public Utilities on behalf of the Division of Rate Counsel. NJ BPU EO18101115. Aug. 31, 2020.

Examine Oklahoma Gas and Electric's $800 million Grid Enhancement Plan. Testimony before the Oklahoma Corporations Commission on behalf of AARP. PUD 202000021. August 25, 2020.

Examine Baltimore Gas and Electric's 2021-2023 Grid Investment and Operations Plan. Panel **t**estimony before the Maryland Public Service Commission with Dennis Stephens on behalf of the Office of People's Counsel. MDPSC 9645. August 14, 2020.

Critique of Duke Energy Carolinas/Duke Energy Progress $2.3 billion Grid Improvement Plan. Testimony before the North Carolina Utilities Commission on behalf of a coalition of consumer and environmental advocates. NCUC E-7, Sub 1214 February 18, 2020, and E-2, Sub 1219 March 25, 2020.

Critique of Investment in Traditional Meters (Equipped with AMR). Testimony before the New Hampshire Public Utilities Commission recommending rejection of cost recovery. DE 19-057. December 20, 2019.

Critique of Smart Meter Benefits Claimed by Puget Sound Energy. Testimony before the Washington Utility and Telecom Commission recommending rejection of cost recovery pending demonstration of benefits in excess of costs. UE-190529 and UG-190530. November 22, 2019.

Critique of Smart Meter Benefits Claimed by Rockland Electric Company. Testimony before the New Jersey Board of Public Utilities on behalf of the Division of Consumer Advocate recommending rejection of cost recovery pending demonstration of benefits in excess of costs. ER19050552. October 11, 2019.

Critique of Grid Improvement Plan Proposed by Indianapolis Power and Light. Testimony before the Indiana Utility Regulatory Commission recommending reductions in the size of the plan ($1.2 billion) based on benefit-cost analyses of plan components. Cause 45264. October 7, 2019.

Investigation into Distribution Planning Processes. Comments to the Michigan Public Service Commission recommending a transparent, stakeholder-engaged distribution planning process. U-20147. September 11, 2019.

Investigation into Grid Modernization. Comments to the New Hampshire Public Utilities Commission recommending a transparent, stakeholder-engaged distribution planning process. IR 15-296. September 6, 2019.

Arguments to Reduce and Re-prioritize Grid Modernization Investments Proposed by Pacific Gas & Electric. Testimony before the California Public Utilities Commission. A.18-12-009. July 26, 2019.

Evaluation of Xcel Energy's Request for an Advance Determination of Prudence Regarding Natural Gas Generation Plant Purchase. Testimony before the North Dakota Public Service Commission. PU-18-403. May 28, 2019.

Critique of Smart Meter Replacement Program Implied by Proposed Duke Energy Ohio Global Settlement Agreement. Testimony before the Public Utilities Commission of Ohio on behalf of the Office of Consumer Counsel. Numerous cases including 17-0032-EL-AIR. June 25, 2018.

Support for Considering Duke Energy Grid Modernization Investments in a Distinct Proceeding. Testimony before the North Carolina Utilities Commission on behalf of the Environmental Defense Fund. E-2 Sub 1142, October 18, 2017 and E-7 Sub 1146, January 19, 2018.

Evaluate Southern California Edison's Request to Invest $2.3 Billion in its Grid to Accommodate Distributed Energy Resources. Testimony before the California Public Utilities Commission on behalf of The Utility Reform Network. A16-09-001. May 2, 2017.

Evaluate Kentucky Utilities/Louisville Gas & Electric Smart Meter Deployment Plan. Testimony before the Kentucky Public Service Commission on behalf of the Kentucky Attorney General in 2016-00370/2016-00371. March 3, 2017. Also in 2018-00005 May 18, 2018

Evaluate National Grid's Massachusetts Smart Meter Deployment Plan. Testimony before the Massachusetts Department of Public Utilities on behalf of the Massachusetts Attorney General in 15-120. March 10, 2017. Also Unitil in 15-121 and Eversource in 15-122/123, March 10, 2017

Evaluate Pacific Gas & Electric's Request to Invest $100 Million in Its Grid to Accommodate Distributed Energy Resources. Testimony before the California Public Utilities Commission on behalf of The Utility Reform Network, A15-09-001. April 29, 2016

Arguments to Consider Duke Energy's Smart Meter CPCN in the Context of a Rate Case. Testimony before the Kentucky Public Service Commission on behalf of the Attorney General in 2016-00152. July 18, 2016.

Evaluate Westar Energy's Proposal To Mandate a Rate Specific to Distributed Generation-Owning Customers. Testimony before the Kansas Corporation Commission on Behalf of the Environmental Defense Fund, case 15-WSEE-115-RTS. July 9, 2015.

Regulatory Reform Proposal to Base a Significant Portion of Utility Compensation on Performance in the Public Interest. Testimony before the Maryland PSC on behalf of the Coalition for Utility Reform, case 9361. December 8, 2014.

Duke Energy Ohio Smart Grid Audit and Assessment. Primary research and report prepared for the Public Utilities Commission of Ohio case 10-2326-GE. June 30, 2011.

SmartGridCity™ Demonstration Project Evaluation Summary. Primary research and report prepared for Xcel Energy. Colorado Public Utilities Commission case 11A-1001E. October 21, 2011.

Books

Smart Grid Hype & Reality: A Systems Approach to Maximizing Customer Return on Utility Investment. Second edition. ISBN 978-0-615-88795-1. Wired Group Publishing. 360 pages. 2018.

Noteworthy Publications

Alternative Ratemaking in the US: A Prerequisite for Grid Modernization, or an Unwarranted Shift of Risk to Customers? With Kenneth Costello, Sean Ericson and Dennis Stephens. Electricity Journal. Volume 35 (October, 2022).

Utility Regulation Through Legislation: A Cautionary Tale for Legislators, Regulators, Stakeholders, and Utilities. With Sean Ericson and Dennis Stephens. Electricity Journal. Volume 34 (August, 2021).

Florida Storm Protection Plans: A Bonanza for Utilities, a Bust for Consumers and the State. Whitepaper co-authored with Dennis Stephens for AARP-Florida. October 5, 2020.

Challenging Utility Grid Modernization Proposals. With Sean Ericson and Dennis Stephens. Public Utilities Fortnightly. Part 1, August, 2020, pages 59-62; Part 2 September, 2020.

The Rush to Modernize: An Editorial on Distribution Planning and Performance Measurement. With Sean Ericson and Dennis Stephens. Public Utilities Fortnightly. July 8, 2019. Pages 116+

Modernizing the Grid in the Public Interest: Getting a Smarter Grid at the Least Cost for South Carolina Customers. Whitepaper co-authored with Dennis Stephens for GridLab. January 31, 2019

Modernizing the Grid in the Public Interest: A Guide for Virginia Stakeholders. Whitepaper co-authored with Dennis Stephens for GridLab. October 5, 2018.

Measuring Distribution Performance? Benchmarking Warrants Your Attention. With Sean Ericson. Electricity Journal. Volume 31 (April, 2018), pages 1-6.

Busting Myths: Investor-Owned Utility Performance Can be Credibly Benchmarked. With Joel Leonard. Electricity Journal. Volume 30 (October, 2017), pages 45-48.

Price Cap Electric Ratemaking: Does it Merit Consideration? With Bill Steele. Electricity Journal. Volume 30, (October, 2017), pages 1-7.

Integrated Distribution Planning: An Idea Whose Time has Come. Public Utilities Fortnightly. November, 2014; also International Confederation of Energy Regulators Chronicle, 3rd Ed, March, 2015

Smart Grid Economic and Environmental Benefits: A Review and Synthesis of Research on Smart Grid Benefits and Costs. Secondary research report prepared for the Smart Grid Consumer Collaborative. October 8, 2013. Companion piece: Smart Grid Technical and Economic Concepts for Consumers.

Is This the Future? Simple Methods for Smart Grid Regulation. Smart Grid News. October 2, 2014.

A Better Way to Recover Smart Grid Costs. Smart Grid News. September 3, 2014.

Why Should We Switch to Performance-based Compensation? Smart Grid News. August 15, 2014.

The True Cost of Smart Grid Capabilities. Intelligent Utility. June 30, 2014.

Maximizing Customer Benefits: Performance Measurement and Action Steps for Smart Grid Investments. Public Utilities Fortnightly. January, 2012.

Buying Into Solar: Rewards, Challenges, and Options for Rate-Based Investments. Public Utilities Fortnightly. December, 2009.

Notable Presentations and Appearances

S&P Global Market Intelligence, Energy Evolution Podcast Series. *Unintended consequences: When politicians reshape utility regulation.* Interview with Karin Rives. July 26, 2024.

NASUCA Annual Meeting. *Alternative Ratemaking: Unintended Consequences and Recommendations for Consumer Advocates.* Charlotte, NC. November 7, 2023.

NASUCA Electricity Committee Meeting. *Alternative Ratemaking and Grid Modernization: Considerations for Consumer Advocates.* With Dennis Stephens and Ken Costello. December 7, 2022.

NASUCA Annual Meeting. *Reinventing Distribution Planning in New Hampshire.* With D. Maurice Kreis, Executive Director, Office of Consumer Advocate. San Antonio, TX. November 19, 2019.

National Council on Electricity Policy Annual Meeting. Trainer on the economics of distribution grid interoperability and standard compliance; Presentation on communication network economics. Austin, TX. Sept 10-12, 2019.

NASUCA Annual Meeting. *Grid Modernization: Basic Technical Challenges Advocates Should Assert.* Orlando, FL. November 13, 2018.

Illinois Commerce Commission, NextGrid Working Group 7. *Using Peer Comparisons in Distributor Performance Evaluation.* Workshop 3 Presentation. Chicago, IL. July 30, 2018.

NARUC Committee on Electricity. *Using Peer Comparisons in Distributor Performance Evaluation.* Smart Money in Grid Modernization Panel Presentation. Scottsdale, AZ. July 16, 2018.

Public Utilities Commission of Ohio, Power Forward Proceeding Phase 2. *Getting a Smart Grid for FREE.* Columbus, Ohio. July 26, 2017.

NASUCA Mid-Year Meeting. *Using Performance Benchmarking to Gain Leverage in an "Infrastructure Oriented" Environment.* Denver, CO. June 6, 2017.

NARUC Committee on Energy Resources and the Environment. *How big data can lead to better decisions for utilities, customers, and regulators***.** Washington DC. February 15, 2016.

National Conference of Regulatory Attorneys 2014 Annual Meeting. *Smart Grid Hype & Reality.* Columbus, Ohio*.* June 16, 2014.

NASUCA 2013 Annual Conference. *A Review and Synthesis of Research on Smart Grid Benefits and Costs.* Orlando, FL. November 18, 2013.

NARUC Subcommittee on Energy Resources and the Environment. *The Distributed Generation (R)Evolution.* Orlando, FL. November 17, 2013.

IEEE Power and Energy Society, ISGT 2013. *Distribution Performance Measures that Drive Customer Benefits.* Washington DC. February 26, 2013.

Great Lakes Smart Grid Symposium. *What Smart Grid Deployment Evaluations are Telling Us*. Chicago. September 26, 2012.

Mid-Atlantic Distributed Resource Initiative. *Smart Grid Deployment Evaluations: Findings and Implications for Regulators and Utilities.* Philadelphia. April 20, 2012

DistribuTECH 2012. *Lessons Learned: Utility and Regulator Perspectives.* Panel Moderator. January 25.

DistribuTECH 2012. *Optimizing the Value of Smart Grid Investments.* Half-day course. January 23.

NARUC Subcommittee on Electricity. *Maximizing Smart Grid Customer Benefits: Measurement and Other Implications for Investor-Owned Utilities and Regulators*. St. Louis, MO. November 13, 2011.

Canadian Electric Institute 2013 Annual Distribution Conference. *The (Smart Grid) Story So Far: Costs, Benefits, Risks, Best Practices, and Missed Opportunities.* Toronto, Canada. January 23, 2011.

Teaching

Post-graduate Adjunct Professor. University of Colorado, Global Energy Management Program. Course: Renewable Energy Commercialization -- Electric Technologies, Markets, and Policy.

Guest Lecturer. Michigan State University, Institute for Public Utilities. Courses: Performance Measurement of Distribution Utility Businesses; Introduction to Grid Modernization.

Education

Master's Degree in Management, 1991, Kellogg School of Management, Northwestern University, Evanston, IL. Concentrations: Finance, Accounting, Information Systems, and International Business.

Bachelor's Degree in Business Administration, 1984, Kelley School of Business, Indiana University, Bloomington, IN. Concentrations: Finance, Marketing.

Certifications

New Product Development Professional. Product Development and Management Association. 2007.

Baltimore Gas and Electric Company's Application for Adjustments to Its Electric Base Rate

Case No. 9888

Data Responses Cited in the Direct Testimony of Paul J. Alvarez

BGE Response to OPC Data Request 4-1

BGE Response to OPC Data Request 8-1

Case No. 9888
Baltimore Gas and Electric Co.
Response to OPC Data Request 4
Request Received: August 11, 2026
Response Date: August 25, 2026
Sponsor(s): Laura A. Wright

Item No.: OPCDR04-01

Refer to Mr. Frain's Direct Testimony at 55:1 which states, regarding City expenditures under historical City conduit agreements, "Those expenditures could include salaries, administrative overhead, and generalized municipal conduit activities that were not necessarily targeted to protecting BGE's electric facilities or reducing outage risk for BGE customers." Refer also to 50:5, which states "Beginning around 2016, the City began to proactively replace entire spans of outdated conduit and associated manholes."

a. OPC understands that BGE began making investments in the City's conduit network in 2023. Provide a list of service interruptions from January 1, 2016 through December 31, 2022, caused by outdated City conduit and manholes. For each such service interruption please provide:
   i. The date of the service interruption;
   ii. The recorded primary category of service interruption cause;
   iii. The recorded secondary category of service interruption cause;
   iv. The count of customers interrupted;
   v. The count of customer minutes interrupted; and
   vi. The field notes associated with the service interruption.
b. Provide a list of service interruptions from January 1, 2016 through December 31, 2022, in which the duration of a service interruption was extended due to outdated City conduit and manholes. For each such service interruption please provide:
   i. The date of the service interruption;
   ii. The recorded primary category of service interruption cause;
   iii. The recorded secondary category of service interruption cause;
   iv. The count of customers interrupted;
   v. The total count of customer minutes interrupted;
   vi. The proportion (in percent) of the total count of customer minutes interrupted extended due to outdated City conduit and manholes; and
   vii. The field notes associated with the service interruption.

RESPONSE:

a. BGE does not track the requested information in the manner requested. Accordingly, the requested data is not available in the ordinary course of business and BGE is unable to provide the information as requested.

b. BGE does not track the requested information in the manner requested. Accordingly, the requested data is not available in the ordinary course of business and BGE is unable to provide the information as requested.

Case No. 9888
Baltimore Gas and Electric Co.
Response to OPC Data Request 8
Request Received: August 24, 2026
Response Date: September 08, 2026
Sponsor(s): Counsel

Item No.: OPCDR08-01

Do any of BGE's historic test year capital or O&M expenses reflect international trade tariffs implemented pursuant to the International Emergency Economic Powers Act ("IEEPA") that were paid by BGE, Exelon, or another entity on BGE or Exelon's behalf?

a. If so, please identify the specific amounts by account and project.
b. If so, has BGE and/or Exelon taken any steps to seek refund or reimbursement of any costs associated with IEEPA tariffs?
    i. If no steps have been taken, do BGE and/or Exelon intend to seek refund or reimbursement of any costs associated with IEEPA tariffs?
    ii. If BGE and/or Exelon do not intend to seek refund or reimbursement of costs associated with IEEPA tariffs, please explain why not.

RESPONSE:

Neither BGE nor Exelon were the importer of record for any purchases during the time the IEEPA tariffs were in place. Therefore, we do not have visibility to any IEEPA tariffs that may have been passed on by our suppliers, who themselves may not have been the importer or record. In addition, for tariffs which may have been paid by BGE or Exelon during that time period, suppliers do not identify tariffs by the implementing legislation to allow us to identify IEEPA tariffs. However, Exelon is actively in communication with its suppliers to determine what IEEPA tariffs may have been paid, if any, and any refunds that may be forthcoming. To date, BGE has received approximately $14,500 in IEEPA related refunds.

Baltimore Gas and Electric Company's Application for Adjustments to Its Electric Base Rate

Case No. 9888

Data Responses Cited in the Direct Testimony of Paul J. Alvarez from Case No. 9692

BGE Response to OPC Data Request 2-7, Attachment 1

BGE Response to OPC Data Request 12-58

BGE Response to Staff Data Request 6-16, Attachment 1

Conduit Agreement Impact on Annual Revenue Requirement During the MYP

	Prior O&M Only Conduit Fee	**2023**	**2024**	**2025**	**2026**
A	O&M conduit fee costs revenue requirement (1)		$ 32,310,000	$ 32,310,000	$ 32,310,000

	New Conduit Amendment	**2023**	**2024**	**2025**	**2026**
B	Average Investment (see below) (2)	$ 4,900,000	$ 27,634,000	$ 62,519,000	$ 96,819,000
C	Rate of Return		9.5%	9.5%	9.5%
D=B*C	Required Income		$ 2,625,230	$ 5,939,305	$ 9,197,805
E	Property Tax		$ 71,500	$ 404,690	$ 928,785
F	Depreciation Expense (3)		$ 932,000	$ 932,000	$ 2,200,000
G	O&M Conduit Fee Costs		$ 5,625,000	$ 5,625,000	$ 5,625,000
H=D+E+F+G	Revenue requirement		$ 9,253,730	$ 12,900,995	$ 17,951,590
					Revenue Requirement Reduction

(1) Lease payments from prior agreement assuming an increase in 2024
(2) Assumes 1/2 of annual Capital Investment is placed in-service in annually
(3) Assumes a 2% depreciation rate

	2023	**2024**	**2025**	**2026**
Capital Investments	$ 10,000,000	$ 36,600,000	$ 36,700,000	$ 36,700,000
Depreciation Expense	$ (200,000)	$ (732,000)	$ (734,000)	$ (734,000)
Terminal Rate Base	$ 9,800,000	$ 35,868,000	$ 35,966,000	$ 35,966,000

Capital Investments	$ 10,000,000
Depreciation Expense	$ (200,000)
Average Rate Base	$ 4,900,000

BOY Plant 2023	$ 10,000,000		
Depreciation Expense	$ (200,000)		
Cap Ex	$ 36,400,000		
Depreciation Expense	$ (732,000)		
Average Rate Base	$ 27,634,000		
BOY Plant 2023		$ 9,800,000	
Depreciation Expense		$ (200,000)	
BOY Plant 2024		$ 35,668,000	
Depreciation Expense		$ (732,000)	
2025 CapEx		$ 36,700,000	
Depreciation Expense		$ (734,000)	
Average Rate Base		$ 62,519,000	
BOY Plant 23			$ 9,600,000
Depreciation Expense			$ (200,000)
BOY Plant 24			$ 34,936,000
Depreciation Expense			$ (732,000)
BOY Plant 25			$ 35,966,000
Depreciation Expense			$ (734,000)
2026 Cap Ex			$ 36,700,000
Depreciation Expense			$ (734,000)
Average Rate Base			$ 96,819,000

Case No. 9692
OPC Data Request 2
Item 7
Attachment 1

Total	
$	96,930,000
$	40,106,315
$	(56,823,685)

Case No. 9692
Baltimore Gas and Electric Co.
Response to OPC Data Request 12
Request Received: April 18, 2023
Response Date: May 02, 2023
Sponsor(s): David M. Vahos

Item No.: OPCDR12-58

Directed to Witness Vahos

Refer to Exhibit DMV-6E, page 41, project 87472 (Conduit Capital).

a. Provide a list of projects the Company will complete and the capital cost of each by year for 2023–2026. If unavailable, please provide descriptions of the primary types of infrastructure improvements the Company will likely make as part of this project, and the likely capital cost by type, by year for 2023–2026.
b. Confirm that the Company's downtown Baltimore underground network is operating safely and reliably today. If not confirmed, please explain.
c. Refer to the responses to subparts (a) and (b) above. For each project or infrastructure improvement type listed in response to subpart (a), explain why each is necessary for safe and reliable service given the response to subpart (b).
d. Provide (or estimate) a count of customers served by the Company's downtown Baltimore underground network as of December 31, 2022.
e. Provide a list of service interruptions, with date and network identifier (as employed in the Company's response to OPC DR 6-02), occurring on the Company's downtown Baltimore underground network from January 1, 2013 to December 31, 2022.
f. Provide a list of safety incidents, with dates and descriptions, resulting from the existing state of the Baltimore City conduit system from January 1, 2013 to December 31, 2022.
g. Provide a description of how the Company's $120 million investment will benefit its customers, particularly given the list of service interruptions provided in response to subpart (e) above, the inherent redundancies designed into the Company's downtown Baltimore underground network, and the short list of safety incidents provided in response to subpart (f) above.
h. Refer to the Company's response to subpart (g) above. Provide any benefit-cost analyses the Company completed indicating that the benefits to customers of the $120 million investment will exceed the costs (revenue requirements) to customers. If the Company did not complete any such analysis, please explain why not.
i. Refer to StaffDR06-16 Attachment 1, which is the executed Amendment to the Company's Settlement Agreement with Baltimore City regarding the use of the City's conduit system 2023-2027. Confirm that to the extent the Commission rejects the Company's proposal to invest $120 million in the City's conduit system, the Company's shareholders, and not the Company's customers, will fulfill the Company's obligations to the City as described in the Amendment.
j. Provide a copy of the Company's long-term strategy for investing in conduit system capital improvement projects, including the date on which this strategy was

approved/adopted. Estimate the capital spending on additional improvements the Company wishes to make beyond the 2027 end-date of the Amendment.

k. Refer to the Amendment cover letter, which indicates that 24% of the conduit is occupied by tenants other than BGE. Describe any attempts BGE has made, or plans BGE has, to secure compensation from such tenants in exchange for conduit enhancements. If the Company has made no such attempts or has no such plans, please explain why not.

l. Using the assumptions employed by the Company to determine revenue requirements in this case, estimate the revenue requirements by year over a 50-year depreciation period associated with the capital investment amounts specified in the Amendment 2023-2027.

RESPONSE:

a. The primary types of infrastructure improvements BGE will be making under the new agreement are the complete replacement of existing conduit spans and the complete rebuild of manholes. These projects will primarily focus on old and / or poor condition infrastructure. Only projects that benefit BGE's electric distribution system will be selected.

b. BGE's underground electrical network in Baltimore City is operating safely and reliably today. However, significant portions of Baltimore City's underground conduit system are comprised of old terracotta and orange burg materials and many manholes are in poor condition due to their age. The failure mode of the terracotta and orange burg materials is to collapse which leads to obstructions that need to either be cleared via rods if possible or in many cases the conduit obstruction needs to be excavated and repaired and these obstructions can disrupt electric service.

c. See the responses to subparts (a) and (b), above.

d. The Downtown AC Secondary Network located within downtown Baltimore supplies 1,905 customers. Please see OPCDR06-01-CONFIDENTIAL CEII Attachment (a) for details of the supply circuits. The Downtown AC Secondary Network is a highly reliable and specialized supply design to avoid outages, typically deployed in central business districts of cities. The AC Secondary Network contains multiple supply circuits, network transformers, and network protectors to enable the AC Secondary network customers to remain in service following the loss of one or more supply circuits. However, please note that the Baltimore City conduit system extends significantly beyond the Company's Downtown AC Secondary Network.

e. Please see OPCDR12-58-*Attachment 1* for a listing of interruption events on the AC Secondary Downtown Network supply circuits. Supply circuit loss to the AC Secondary Network rarely results in unplanned outages for network customers. However, please note that the Baltimore City conduit system extends significantly beyond the Company's Downtown AC Secondary Network.

f. Baltimore City owns and operates the conduit system and therefore BGE cannot provide a list of all safety incidents related to the Baltimore City conduit system. Furthermore, while BGE does track safety incidents for its employees, it does not track events discretely for the conduit system in isolation.

g. Please refer to OPCDR02-06- CONFIDENTIAL Attachment 1 and OPCDR02-07-Attachment 1.

h. Please refer to OPCDR02-06- CONFIDENTIAL Attachment 1 and OPCDR02-07-Attachment 1.

i. This amended agreement represents an arm’s length commercial transaction between two parties, and it provides BGE’s customers with improved and modernized infrastructure investments at a lower revenue requirement then the prior conduit agreement. Given how essential the conduit system is to delivering electric service to BGE’s customers the amended agreement is prudent and should be recovered through distribution rates.

j. Please see OPCDR02-06-CONFIDENTIAL Attachment 1. The Company has not estimated the appropriate capital spending beyond the term of the amended agreement.

k. Baltimore City owns and operates the conduit system. BGE has no contractual relationship with the other tenants regarding the conduit system.

l. The Company has not prepared the requested analysis.

TO: Board of Estimates, Office of the Comptroller

FROM: Corren Johnson, Interim Director

SUBMITTING AGENCY: Department of Transportation

DATE: January 31, 2023 for February 15, 2023 BOE

SUBJECT: Amendment to City's Settlement Agreement with BGE

CONTRACT/GRANT NUMBER:

ACTION REQUESTED OF B/E: Approval of contract amending City's settlement with BGE to require BGE to pay for Capital improvements to the City conduit.

PERIOD OF CONTRACT/AGREEMENT: Present through December 31, 2026.

AMOUNT AND SOURCE OF FUNDS: The City will receive **[$14,000,000]** from BGE for the calendar year ending December 31, 2023, for maintenance of the conduit system. The City will then receive **[$1,500,000]** in 2024, 2025, and 2026 from BGE for maintenance of the conduit system. In addition, BGE agrees to pay **[$120,000,000]** by December 31, 2026 on capital improvements to the conduit system. This is a total of $138,500,000 investment from BGE into the City's conduit over the next four years, or an average of $34,625,000 per year. By comparison, the City received approximately $28,000,000 per year in lease payments from BGE under the previous agreement.

BACKGROUND/EXPLANATION: Baltimore City's conduit is a system of tubes and pipes that contain electric, telephone, fiber optic and other types of wires and cables. The system was originally built in the 19th century and is owned entirely by the City. However, the City allows others to run their own wires and cables through the system. BGE, the largest utility in Baltimore, occupies approximately 76% of the conduit with gas and electric lines for the City's residents.

BGE is the successor entity to an 1881 Franchise that gives BGE the right to install electrical lines in the City in perpetuity. This original franchise had no reference to lease cost, so starting in 1903, the City entered a lease with BGE for building and occupancy of conduit at a rate of 7 cents per duct foot per annum. The City and BGE made subsequent agreements in 1931, 1934, 1936, 1939, 1957, 1982, 2004, 2008 and 2014 to determine the rate that BGE paid the City for use of the conduit. A central tenet of these agreements was that the City's charge to BGE must be compensation for the maintenance of the conduit and not compensation for capital improvements, other costs or to make a profit.

In 2016, the City and BGE agreed to an increase in the rental rate in the City's conduit system. The 2016 agreement followed litigation brought by BGE and a group of telecommunication providers in Federal and State Courts challenging the City's ability to increase the conduit lease rate. That settlement agreement terminated on July 1, 2022.
Since that time, the City and BGE have been negotiating over new rates for BGE's use of the City's conduit. During the course of these negotiations, the parties discussed that instead of continuing to make lease payments for the use of the conduit, BGE would make an historic investment in capital improvements to the conduit that would benefit the City, BGE, and the remaining users of the conduit. Doing so would solidify BGE's financial responsibilities for the use of the conduit, while ensuring that the City retains 100% ownership of an important City asset.

DOT has now finalized these negotiations and requests that the Board of Estimates approve the Agreement. BGE has agreed to take on the cost, administrative burden and liability of capital improvements to the conduit in the amount of **$ 120 Million**. This is a guaranteed spend over the 4 years of the contract. The City retains the ownership of the conduit and all improvements. In addition to the influx of **over 100 Million** in improved capital, BGE has agreed to pay **$14 Million** in a lump sum to pay for the City's existing contractual obligations for current conduit construction. The City will also receive **$ 1.5 Million** in annual rent for occupancy.

The increased improvement to the capital structure of the conduit is anticipated to reduce needed repairs and the annual rent payments needed to pay for such repairs. And while there is no M/WBE requirements in this agreement, BGE is obligated under a separate agreement with Maryland's Public Service Commission to utilize approximately 25% of minority and women owned businesses, thereby obviating the need for such a term in this Agreement.

MBE/WBE PARTICIPATION:

COUNCIL DISTRICT: N/A

EMPLOY BALTIMORE: N/A

LIVING WAGE: N/A

LOCAL HIRING: N/A

1% FOR PUBLIC ART: N/A

The headers below are for use by reviewing departments ONLY. Please leave them as blank spaces for official endorsements and signatures.

FINANCE HAS REVIEWED: Robert Cenname, Deputy Finance Director

LAW DEPARTMENT HAS REVIEWED: Elena Thompson

MWBOO HAS REVIEWED:

AUDITS HAS REVIEWED:

APPROVED BY THE BOARD OF ESTIMATES:

AMENDMENT
TO SETTLEMENT AGREEMENT

THIS AMENDMENT TO SETTLEMENT AGREEMENT (this "**Amendment**"), as of February 15th, 2023, is entered into by and between Baltimore Gas and Electric Company, a Maryland corporation ("**BGE**"), and the Mayor and City Council of Baltimore, a municipal corporation of the State of Maryland (the "**City**"), as an amendment to that certain Settlement Agreement by and between BGE and the City approved on November 30, 2016 (the "**2016 Settlement Agreement**"). BGE and the City shall be referred to collectively as the "**Parties**" and individually as a "**Party**." Any capitalized term used in this Amendment but not defined hereunder shall have the meaning ascribed to such term in the 2016 Settlement Agreement.

Recitals

WHEREAS, the Parties entered into the 2016 Settlement Agreement regarding, in part, BGE's use of the Conduit System and the City's maintenance of the Conduit System; and

WHEREAS, the Parties desire to amend the 2016 Settlement Agreement to provide that BGE shall be responsible for capital expenditures related to Conduit System capital improvement projects pursuant to the terms set forth in this Amendment;

NOW, THEREFORE, in consideration of the mutual covenants, terms, and conditions set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby covenant and agree, as follows:

1. Effective Date. This Amendment shall be subject to the approval of the Board of Estimates of Baltimore City and, following receipt of such approval and being executed by both Parties, shall be effective as of the date of such approval (the "**Effective Date**").

2. Definitions. The following terms shall have such meanings as are set forth in this Section 2:

   a. "**Capital Improvements**" shall mean any construction, restoration, alteration, addition, improvement, renovation, or other physical changes or modifications of any nature (excluding Maintenance) in, on, or to the Conduit System, including, without limitation, structural alterations, modifications or improvements to any expansion of the Conduit System, in each case, to the extent that the costs of such activity are or would be capitalized in accordance with Generally Accepted Accounting Principles (GAAP).

   b. "**Maintenance**" shall mean all maintenance, repairs, non-capital replacements, and related inspections necessary to maintain the Conduit System in good order and proper working condition and suitable for BGE's provision of safe, reliable, and efficient electric service to customers throughout its service territory.

3. Initial Term; Responsibility for Conduit System Capital Improvement Projects. Beginning on the Effective Date and continuing for a term ending on December 31, 2026 (the "**Initial Term**"), and subject to the terms and conditions of this Amendment, BGE shall be responsible for, and undertake itself and through its contractors, capital expenditures related to Capital Improvements ("**Capital Improvement Projects**"), up to an aggregate cost of One Hundred Twenty Million Dollars ($120,000,000) during the Initial Term ("**BGE's Initial Term CIP Obligation**"). The City, in its discretion, may undertake additional Capital Improvements and may continue Capital Improvements that the City began prior to the Effective Date.

4. Maintenance Payments. BGE shall pay (i) an annual fee of Fourteen Million Dollars ($14,000,000) for the calendar year ending December 31, 2023 and (ii) an annual fee of One Million Five Hundred Thousand Dollars ($1,500,000) for each subsequent calendar year during the Initial Term (each such annual fee payment, a "**Maintenance Payment**"), to the City for Maintenance of the Conduit System to be performed by the City and which Maintenance Payments shall be used in accordance with Section 10 of the 2016 Settlement Agreement. The Maintenance Payment shall be an annual, non-refundable payment made to the City within ten (10) days following the Effective Date and within ten (10) days following the first day of each of the subsequent three (3) calendar years. The need for Maintenance and the means and methods of performing Maintenance work shall be determined solely by the City in a manner consistent with the City's past practices in determining the need for Maintenance and the means and methods of performing Maintenance, and the City will consider in good faith any reasonable request by BGE for the performance of Maintenance.

   In the event that BGE does not spend the entire amount of either BGE's Initial Term CIP Obligation or BGE's Extended Term CIP Obligation (as defined in Section 5 below), all amounts not expended, or not otherwise earmarked and committed for Capital Improvement Projects then under construction, shall be paid to the City by BGE as an additional Maintenance Payment or an additional Extended Term Maintenance Payment (as defined in Section 5 below), as applicable, and in each case shall be expended by the City for the benefit of the Conduit System as determined by the City; provided, that all such amounts shall be expended by the City to perform Maintenance or Capital Improvements to the Conduit System; and provided, further, that any such payments under this paragraph shall not reduce the amount of the Maintenance Payment or Extended Term Maintenance Payment, as applicable, required under this Section 4. Unspent funds may be considered earmarked only if a contract has already been awarded by BGE for such work and such work has commenced as of the expiration of the Term or the Extended Term, as the case may be. Any such funds not expended by the City in any year shall be carried over to the next year and committed to the payment for Maintenance of the Conduit System or for City-funded Capital Improvements.

5. Extended Term. This Amendment shall automatically renew for a succeeding term of three (3) years (such succeeding term referred to herein as the "**Extended Term**") unless either Party delivers written notice of its intent not to renew to the other Party at least one hundred eighty (180) days prior to the expiration of the Initial Term. During the Extended Term,

and subject to the terms and conditions of this Amendment, BGE shall (a) be responsible for, and undertake itself and through its contractors, Capital Improvement Projects up to an aggregate cost of Ninety-Two Million Dollars ($92,000,000) (**"BGE's Extended Term CIP Obligation"**) and (b) pay an annual fee of One Million Five Hundred Thousand Dollars ($1,500,000) for each subsequent calendar year during the Extended Term (each such annual fee payment, an **"Extended Term Maintenance Payment"**) to the City for Maintenance of the Conduit System to be performed by the City and which Maintenance Payments shall be used in accordance with Section 10 of the 2016 Settlement Agreement. Any Capital Improvement Project begun before the expiration of the Initial Term or the Extended Term must be completed regardless of when the Initial Term or the Extended Term expires, which obligation survives the expiration of this Amendment. At the request of the City at least two hundred seventy (270) days prior to the expiration of the Initial Term, the City may propose and the Parties shall thereupon discuss potential changes in BGE's Extended Term CIP Obligation or the Extended Term Maintenance Payment.

6. Prioritization and Scope of Conduit System Capital Improvement Projects. BGE and the City shall work in good faith to prioritize and define the scope of work of potential Capital Improvement Projects, including those programs set forth in the Department of Transportation, Conduit Division's FY 2023-2027 Conduit Capital Improvements Program. All such projects undertaken by BGE shall be designed to enhance the Conduit System in a manner that will help improve its safety, efficiency, and reliability for all users of the Conduit System. The Parties recognize that BGE occupies space throughout the entire Conduit System, and thus, as a general proposition, any Capital Improvement Project will help improve the safety, efficiency, and reliability of BGE's electric distribution system. Notwithstanding the foregoing, (a) the Capital Improvement Projects shall be in support of and connected with the Facilities and (b) BGE shall determine in its reasonable judgment whether to pursue any specific Capital Improvement Project.

   Upon the completion of each Capital Improvement Project by BGE, BGE shall provide the City with "as-built" plans prepared in adherence to City requirements. BGE will submit its inspection results to the City for its review and approval. BGE's work shall not be deemed to have been accepted until such plans have been received and approved and all inspections have been satisfactorily completed (such plan approvals and inspections not to be unreasonably withheld by the City).

7. Blanket Permit; Expedited Permitting. On the Effective Date, BGE has authorization to conduct any work in the Conduit System permitted by this Amendment. To the extent any additional City permits are required, the City shall make all reasonable efforts to prioritize, escalate and expedite the process for any such permits and shall endeavor to grant any such permit no later than fifteen (15) business days after the date of application or written request from BGE (provided that the permit application is in material compliance with the City's published written instructions and procedures that are in place as of the Effective Date). If any such permit is delayed, withheld, or withdrawn by the City, BGE's failure to perform the work for which such permit is required shall not be deemed a breach or derogation of its obligations under this Amendment. The terms and conditions of any blanket permit and any other permits or approvals issued to BGE (including, without limitation, any cure

periods therein) shall not be less favorable to BGE than the City's standard terms and conditions applicable to such permits and approvals. The City shall implement a usual and customary capital inspection fee (the "**Capital Inspection Fee**") to be assessed annually under BGE's blanket permit pursuant to this Section 7; provided, however, that the annual Capital Inspection Fee shall be funded solely by BGE's Initial Term CIP Obligation or BGE's Extended Term CIP Obligation, as the case may be.

8. Review of Capital Improvement Programs. At least one hundred twenty (120) calendar days prior to the start of each City Fiscal Year, the City shall submit to BGE a plan of potential Capital Improvements ("**City Capital Improvement Programs**") that BGE shall consider in good faith for construction during the upcoming City Fiscal Year. Notwithstanding the foregoing, BGE shall determine in its sole discretion whether to pursue any City Capital Improvement Programs and will notify the City regarding same. BGE and the City shall continue to meet monthly and discuss BGE's Capital Improvement Projects, as they have done in accordance with Section 13 of the 2016 Settlement Agreement.

9. Emergency. BGE and the City shall coordinate and cooperate with each other in the event that emergency repairs to the conduit system are necessary. Generally, the City, in furtherance of its Maintenance obligations, shall undertake all emergency repairs. In the event, however, of an emergency that requires Capital Improvement(s) to the City's conduit system involving Facilities, BGE, in furtherance of its obligations related to Capital Improvement(s) pursuant to this Amendment, shall undertake said emergency repairs; provided, however, that all costs associated with any such emergency repairs shall be funded solely by BGE's Initial Term CIP Obligation or BGE's Extended Term CIP Obligation, as the case may be. Notwithstanding the foregoing, if BGE believes that an emergency poses a threat of imminent harm or to any of its Facilities or is necessary to promptly address a BGE customer service request, upon timely notice to the City, under its blanket permit (subject to Section 7 above), and to the extent not prohibited by law, BGE may access the Conduit System to ameliorate the threatened harm. In addressing such BGE customer complaints, BGE shall prioritize service calls based upon its assessments of emergencies and in accordance with its customer service protocols. Notwithstanding anything to the contrary in this Amendment, in connection with BGE's performance of any actions under this Section 9, BGE shall not be liable for any Losses arising as a result of any act or omission of the City, its elected or appointed officials, employees, and agents, whether such Losses are based upon contract, warranty, tort, strict liability, or otherwise.

10. Operation and Maintenance. The City shall continue to be responsible for the operation and Maintenance of the Conduit System as set forth in this Amendment and in the 2016 Settlement Agreement.

11. Conduit System Rental Fee. BGE shall not be assessed any rental or other fees for BGE's use of the Conduit System during this Amendment and any Extended Term. BGE shall be obligated to pay its rental fee for July 1, 2022 through December 31, 2022 of fiscal year 2023.

12. Portions of Conduit System Used by other Users. Except as otherwise contemplated in this Amendment, BGE shall not enter or otherwise access any duct within the Conduit System that is used by other users (and is not used by BGE) without prior written consent from the City which shall not be unreasonably withheld (and, if and as required by the City, the other user).

13. Indemnification. BGE shall indemnify, defend and hold harmless the City, its elected and appointed officials, employees, and agents (the "**Indemnified Parties**") from any and all claims, demands, liabilities, losses, damages, fines, fees, penalties, costs, expenses, suits, and actions (including reasonable attorneys' fees and court costs incurred in connection therewith) by a third party, to the extent attributable to bodily injury, death, or destruction of property (collectively, "**Losses**"), brought against the Indemnified Parties, arising as a result of any act or omission of BGE, its officers, directors, employees, or agents in connection with the performance of this Amendment that constitutes negligence, willful misconduct, or gross negligence, whether such Losses are based upon contract, warranty, tort, strict liability, or otherwise; provided, however, that BGE shall not be required to indemnify the Indemnified Parties for any Losses arising out of any act or omission of the Indemnified Parties that constitutes negligence, willful misconduct, or gross negligence, whether such Losses are based upon contract, warranty, tort, strict liability, or otherwise.

    BGE shall have the right to control the defense of all such claims, lawsuits, and other proceedings and, upon written request from the City, shall provide the City with status updates regarding such proceedings. In no event shall BGE settle any such claim, lawsuit, or proceeding without the City's prior written approval (not to be unreasonably withheld, delayed, or conditioned); provided, however, that the City's prior written approval shall not be required if the settlement (i) contains no finding or admission of liability with respect to the City, (ii) involves only monetary relief which BGE has agreed to pay, and (iii) includes an unconditional release of the City. In the event of any claim for Losses against BGE, its officials, employees and agents, BGE shall not seek to join the Indemnified Parties in such action or hold such persons responsible in any way, except to the extent the Losses arise out of any act or omission of the Indemnified Parties that constitutes negligence, willful misconduct, or gross negligence, whether such Losses are based upon contract, warranty, tort, strict liability, or otherwise. The obligations of this section shall survive the expiration or earlier termination of this Amendment.

14. Warranty. BGE warrants to the City as set forth below in this Section 14 with respect to all work by BGE on any Capital Improvement Project completed by BGE during the Term, for a period of two (2) years after the date of acceptance of the work by the City or such longer warranty period as may be provided by a BGE contractor, (such period, the "Warranty Period"):

    a. That all materials and equipment installed to construct the Conduit will be new, unless otherwise specified and all work performed by BGE will be of good quality and free from faults and material defects.

b. That all work shall be performed, in all material respects, in accordance with the requirements of all required permits, plans, specifications, the City of Baltimore, Department of Public Works, Specifications for Material, Highways, Bridges, Utilities and Incidental Structures, Issue of 2006, and any and all Amendments thereto, the City of Baltimore, Department of Public Works, Book of Standards, and any and all Amendments thereto, and all other applicable codes, rules and regulations in effect at the beginning of the Effective Date of this agreement (collectively, the "Applicable Standards").

c. That all equipment and systems and each and every part thereof, shall operate in a satisfactory and efficient manner, and in accordance with the Applicable Standards.

d. That every component and structure shall be watertight and leak proof, as specified in the Applicable Standards.

e. That BGE shall, upon receipt within the Warranty Period of written notice from the City, replace with proper workmanship and materials, and re-execute, correct, or repair, without cost to the City, all work which may be finally determined.

f. That no use by the City of any work by BGE or any part thereof, nor any failure to use the same, nor any repairs, adjustments or corrections made by the City in accordance with Section 14(g) due to BGE's failure to comply with any of its obligations under this Amendment and the Applicable Standards, shall impair in any way the warranty obligations assumed by BGE under this Amendment.

g. If BGE refuses to make such repairs as are reasonably necessary to bring any Capital Improvement in compliance with the Applicable Standards upon written demand delivered by the City to BGE during the Warranty Period, the City may undertake such repairs as are reasonably necessary to cause such Capital Improvement to comply with the Applicable Standards at the cost and expense of BGE, including reasonable compensation if required for additional professional services, to the extent finally determined that such Capital Improvement was not in accordance with Applicable Standards. BGE shall also bear the expense of making good all work of others destroyed or damaged by BGE's correction, removal, repair, or replacement of any defective work.

h. All equipment, systems and other work performed by BGE shall be fully operational at the beginning of the warranty period. Upon determination by the City that an item of work is defective, the City will notify BGE in writing, prior to the expiration of the Warranty Period, of the existence and extent of such defect, and shall establish a reasonable time for BGE to inspect, renew or repair the item of work. If BGE satisfactorily renews or repairs the item within the stipulated time period, the Warranty Period will be unaffected. If BGE fails to satisfactorily renew or repair the defective item within the stipulated time period, the Warranty Period shall be extended by the amount of time beyond the stipulated time period until the item is fully and satisfactorily operational. The intent of this requirement is that the City receives full and satisfactory use of all items of work for the full Warranty Period.

Except as set forth in Section 14(h) above, all representations and warranties in this Section 14 will survive for the length of the Warranty Period, and will immediately thereafter terminate along with any associated right of indemnification and any associated remedies provided for in this Amendment.

15. Minority and Women's Business Opportunity Requirements. While the Parties acknowledge that the provisions of Article 5, Subtitle 28 of the Baltimore City Code do not apply to this Amendment because the work is being performed by BGE at its expense and no City funds are being expended, both the City and BGE acknowledge the importance of contractor diversity. BGE agrees that it shall make every good faith effort to equitably utilize the services of minority business enterprises ("MBE's") and women's business enterprises ("WBE's"). In identifying available MBE's and WBE's, BGE is encouraged to use the MBE/WBE Directory online at https://baltimorecity.diversitycompliance.com/. Notwithstanding anything in this Section 15, BGE shall continue to meet the diverse supplier goals set forth in its Memorandum of Understanding with the Public Service Commission.

16. Deletion of Specific Sections of the 2016 Settlement Agreement. The following provisions of the 2016 Settlement Agreement are hereby deleted in their entirety:

   a. Section 6 (Billing)

   b. Section 7 (True-up of Conduit System Rental Fees Paid by BGE)

   c. Section 8 (Future Conduit System Rental Fee)

   For avoidance of any doubt or misunderstanding, the Parties recognize that upon the expiration of the Initial Term or the Extended Term, as the case may be, this Amendment and the Settlement Agreement shall have been terminated except for any obligations surviving such termination.

17. Conflict of Terms. To the extent the provisions of this Amendment are inconsistent with the terms of the 2016 Settlement Agreement or to the "Current Agreements" to which the 2016 Settlement Agreement refers, the terms of this Amendment shall control. All other terms and conditions of the 2016 Settlement Agreement shall remain in full force and effect.

18. Binding Effect; Assignment. This Amendment shall be binding upon and shall inure to the benefit of the successors and permitted assigns of the Parties hereto. Neither Party shall assign any part of this Amendment without the prior written consent of the other Party, which may be withheld in such Party's sole discretion.

19. No Waiver. Unless otherwise stated in this Amendment, the Parties recognize, acknowledge, and agree that the failure by either Party to enforce any term of this Amendment shall not constitute a waiver of any rights or deprive either Party of the right to insist thereafter upon strict adherence to that or any other term of this Amendment, nor shall a waiver of any breach of this Amendment constitute a waiver of any proceeding or succeeding breach. No waiver of any of the provisions of this Amendment, unless expressly stated otherwise in this Amendment, shall be valid and binding unless it is in writing and signed by the Party against whom it is sought to be enforced.

20. Governing Law. The validity and construction of this Amendment or any of its terms or provisions shall be determined under the laws of the State of Maryland, regardless of any principles of conflicts of laws or choice of laws of any jurisdiction. The Parties further agree that the courts of the State of Maryland shall have exclusive jurisdiction to resolve disputes hereunder that may arise between the Parties.

21. Rules and Regulations. Subject to any limitations imposed by law or unless modified by this Amendment, BGE shall continue to abide by and adhere to the City's Rules and Regulations governing the use of the Conduit System, as amended from time to time, adopted pursuant to the Baltimore City Code. If BGE is not able to comply with any Rule or Regulation due to State or Federal law, BGE will give notice to the City and promptly confer with the City so that the Parties can make a good faith effort to address the City's concerns, as reflected in the new or amended Rule or Regulation, in a lawful manner.

22. Reservation of Rights. BGE reserves all rights and abilities that are necessary to its satisfactory compliance with any duties, requirements, obligations, or responsibilities that may exist under applicable law, including, but not limited to, any rule, regulation, or decision issued by the Commission. Notwithstanding anything in the foregoing to the contrary, BGE represents to the City that none of BGE's duties, requirements, obligations, or responsibilities under this Amendment are prohibited, conditioned, limited, or restricted by any applicable law any rule, regulation, or decision issued by the Commission, as such applicable law, rules, regulations, and decisions now stand. In this respect, BGE shall promptly advise the City of any proposed rule or regulation or pending case that could result in any rule, regulation, or decision that would prohibit condition, limit, or restrict BGE's duties, requirements, obligations, or responsibilities under this Amendment. Should any such rule, regulation, or decision frustrate the purpose of this Amendment or the ability of BGE to perform hereunder, the Parties agree to meet and confer in good faith on potential remedies and whether the City or BGE should be able to modify or terminate this Amendment, whereupon if no mutually acceptable accommodation or amendment is reached, the City may terminate this Amendment.

23. Conflicts of Interest. No member, official, representative, or employee of the City shall have any personal interest, direct or indirect, in this Amendment, nor shall any member, official, representative, or employee participate in any decision relating to this Amendment that affects such person's personal interest or the interests of any corporation, partnership, or association in which such person is, directly or indirectly, interested.

24. Interpretation. In the event of an ambiguity or question of intent or interpretation arises, this Amendment shall be construed as if drafted jointly by the Parties and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any provisions of this Amendment. Whenever the word "including" is used in this Amendment, it shall be deemed to be followed by the words "without limitation."

25. Severability. This Amendment shall be enforceable to the fullest extent allowed by law. If any provision of this Amendment shall be found to be null, unlawful, void, or inoperative for any reason, such provisions shall be struck from this Amendment and otherwise the Amendment shall continue in full force and effect.

26. Counterparts; Electronic Delivery. This Amendment may be executed in multiple counterparts, each of which when executed shall be deemed to be an original, but all of which together shall constitute one and the same agreement. Execution and delivery by facsimile or other electronic means shall be deemed to be, and shall have the same legal effect as, execution by an original signature and delivery in person.

27. Entire Agreement; Modification; Interpretation. This Amendment and the 2016 Settlement Agreement, together, with the "Current Agreements" to which the 2016 Settlement Agreement refers, constitute the entire agreement and understanding between the Parties and supersede all prior agreements, understandings, whether written or oral, relating to the subject matter of this Amendment. This Amendment may be amended or modified only by a written instrument executed by each Party and, in the case of the City, approved by its Board of Estimates. The language of all parts of this Amendment shall in all cases be construed as a whole, according to its fair meaning, and not strictly for or against either of the Parties, notwithstanding any statutory or common law provisions that would suggest otherwise.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, BGE and the City have caused this Amendment to Settlement Agreement to be executed by their respective officers as of the Effective Date.

WITNESS:

____

BALTIMORE GAS AND ELECTRIC COMPANY

By:______________________________

Name: David M. Vahos

Title: Chief Financial Officer, BGE

Date:______________________________

[SEAL]
ATTEST:

____
Custodian of the City Seal

MAYOR AND CITY COUNCIL OF BALTIMORE

By:______________________________

Name: Brandon Scott

Title: Mayor

APPROVED FOR FORM AND LEGAL SUFFICIENCY

____

Name: Ebony Thompson

Title: Acting City Solicitor

APPROVED BY THE BOARD OF ESTIMATES

____
Deputy Controller

Date: ______________________________

IN WITNESS WHEREOF, BGE and the City have caused this Amendment to Settlement Agreement to be executed by their respective officers as of the Effective Date.

WITNESS:

____

BALTIMORE GAS AND ELECTRIC COMPANY

By:______________________________

Name: David M. Vahos

Title: Chief Financial Officer, BGE

Date:______________________________

[SEAL]
ATTEST:

____
Custodian of the City Seal

MAYOR AND CITY COUNCIL OF BALTIMORE

By:______________________________

Name: Brandon Scott

Title: Mayor

APPROVED FOR FORM AND LEGAL SUFFICIENCY

____

Name: Ebony Thompson

Title: Acting City Solicitor

APPROVED BY THE BOARD OF ESTIMATES

Approved on February 15, 2023 Pursuant to Baltimore City Charter and BOE Rules

____

Deputy Controller

Date: ______________________________

IN WITNESS WHEREOF, BGE and the City have caused this Amendment to Settlement Agreement to be executed by their respective officers as of the Effective Date.

WITNESS:

BALTIMORE GAS AND ELECTRIC COMPANY

By:______________________

Name: David M. Vahos

Title: Chief Financial Officer, BGE

Date:______________________

[SEAL]
ATTEST:

Custodian of the City Seal

MAYOR AND CITY COUNCIL OF BALTIMORE

By:______________________

Name: Brandon Scott

Title: Mayor

APPROVED FOR FORM AND LEGAL SUFFICIENCY

Name: Ebony Thompson

Title: Acting City Solicitor

APPROVED BY THE BOARD OF ESTIMATES

Approved on February 15, 2023 Pursuant to Baltimore City Charter and BOE Rules

____
Deputy Controller

Date: ______________________