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Senate Finance
03/30/2021

House Bill 890 – Natural Gas – Strategic Infrastructure Development and Enhancement – Surcharge and Plans

POSITION: SUPPORT

Washington Gas supports House Bill 890, which modifies the Strategic Infrastructure Development and Enhancement (STRIDE) Program to efficiently operate within multi-year rate plans. STRIDE is an important program that ensures Maryland’s natural gas infrastructure remains safe and modern.

As you know, STRIDE enables gas utilities to accelerate pipeline replacement projects designed to improve public safety and system reliability. Utilities recover these costs through customer surcharges in “real-time” as the projects are completed throughout the year.

In 2020, the PSC approved a process allowing utilities to request multiyear rate plans.

HB 890 aligns the STRIDE program with the new multiyear rate plan design.

How?

The bill allows eligible project costs to be incorporated into base rates when those rates are adjusted during a multi-year rate plan.

This has the effect of “making room” in the surcharge to add new eligible projects, since existing projects will be moved to base rates as part of the adjustment.

Over time, this will increase overall investments, and further accelerate replacement.

HB 890 would not authorize utilities to increase the monthly cap or charge customers twice.

At our current pace, without this legislation, Washington Gas anticipates completion of our current STRIDE work by 2035.

For these reasons, Washington Gas respectfully requests a favorable report from the Committee.

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BGE STRIDE EIS Report 2021-02-01.pdf

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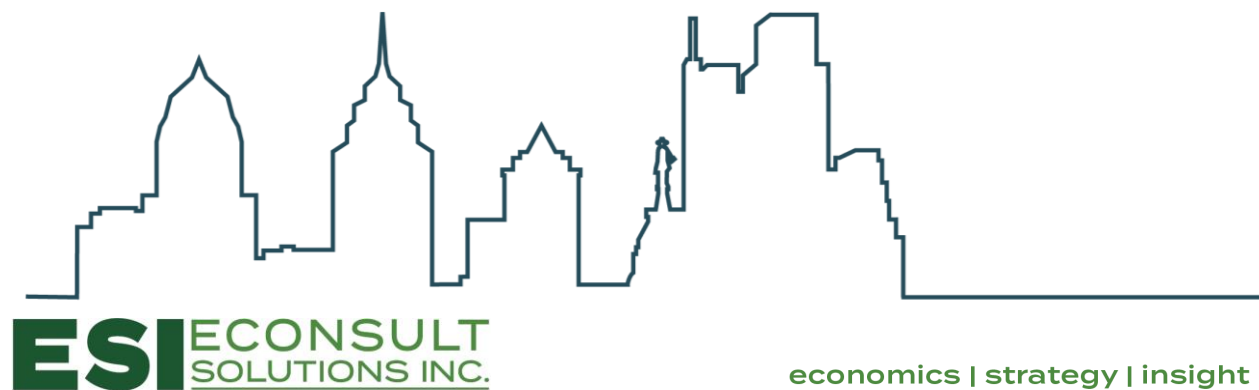
Position: FAV

Economic Impact of Baltimore Gas and Electric Company's (BGE) Strategic Infrastructure Development and Enhancement (STRIDE) Program

Evaluation of the Current 2042 Plan and Accelerated Investment Options

Date: February 1, 2021

Submitted to: Baltimore Gas and Electric Company



Executive Summary

Since the passage of Maryland's Strategic Infrastructure Development and Enhancement (STRIDE) Law in 2013, Baltimore Gas and Electric Company (BGE) has accelerated the modernization of its natural gas system, benefitting customers with safer, more reliable gas service, reducing greenhouse gas emissions, and supporting job growth. Strategic investments in public infrastructure such as BGE's STRIDE program are an essential component of the region's economic vitality as well as the health and well-being of local communities.

BGE commissioned Econsult Solutions, Inc (ESI) to perform a study to measure the economic and environmental impacts of BGE's current approved STRIDE program – projected to be complete in 2042 – as well as three scenarios where the STRIDE program investments are further accelerated to be complete in 2032, 2035, or 2037.

The STRIDE program investments represent a significant boost to the local and state economies in Maryland, measured in terms of output, jobs, and labor income, as well as tax revenues. Direct construction activity puts construction workers and their professional service providers to work, who in turn spend a portion of their salaries and wages within the local and state economies. It also catalyzes the procurement of a wide range of goods and services, which translates into new economic opportunities for local and state vendors. Further, investments through the STRIDE program reduce emissions and pollutants into the region's environment.

Under the current (2042) STRIDE plan, the cumulative impact generated from the 22-year construction period going forward will produce a \$2.5 billion impact to the state of Maryland, supporting 14,780 full-time equivalent jobs and \$929 million in labor income. The STRIDE investments will also generate approximately \$94 million in income, sales, and business taxes to the State of Maryland over the same period.¹

If BGE were to accelerate the STRIDE program investments, the cumulative economic impacts are larger if the time period for completion is shortened to 2032, 2035, or 2037. For each of the acceleration scenarios, the cumulative economic and fiscal impacts are shown in the following figures.

¹ Analysis and metrics are shown in 2020 present value dollars throughout the report.

Figure ES.1: Cumulative Economic Impact from the STRIDE Program by Scenario within the State of Maryland

Impact Type	Accelerated Scenarios			Current Plan
	2032	2035	2037	2042
Total Impact (\$M)	\$3,019	\$2,897	\$2,785	\$2,498
Employment Supported (FTE) ²	15,340	14,590	13,420	14,780
Labor Income (\$M)	\$1,123	\$1,078	\$1,036	\$929
Total Tax Revenue Impact (\$M)	\$114	\$109	\$105	\$94

By modernizing natural gas infrastructure, the STRIDE program is improving environmental and health outcomes for communities both locally and globally. Replacing aged gas infrastructure reduces natural gas system leakages, which in turn prevents methane from entering the atmosphere. Methane directly contributes to global warming and serves as the main precursor to the harmful air pollutant, tropospheric ozone. Air pollution can disproportionately impact low-income communities, making health improvements in the BGE service area all the more crucial. BGE's investments in the STRIDE program will positively impact the health and well-being of Central Maryland residents for generations to come.

Under the current approved STRIDE plan, investments through 2042 will generate \$21 million in societal benefit within the United States and \$156 million globally from reduced greenhouse gas emissions.³ Due to the cumulative benefit from replacing gas mains, the accelerated STRIDE 2032 program will produce the greatest emissions reductions and overall value.

Figure ES.2: Social Value of CO₂ Emissions Reduction from STRIDE Programs by Scenario, Through 2050

	CO ₂ Emissions Reduction (Metric Tons)	Domestic Value of CO ₂ Emissions Reduction (\$M)	Global Value of CO ₂ Emissions Reduction (\$M)
New Plan 2032	2,591,710	\$24.9	\$185.3
New Plan 2035	2,451,350	\$23.7	\$176.6
New Plan 2037	2,392,940	\$23.2	\$172.7
Current Plan 2042	2,146,650	\$21.0	\$156.4

² IMPLAN generates job estimates based on the term "job-years", or how many jobs will be supported each year. For instance, if a construction project takes two years, and IMPLAN estimates there are 100 employees, or more correctly "job-years" supported, over two years, that represents 50 annual jobs. Additionally, there may be a mix of full and part-time employment. Consequently, job creation could feature more part-time jobs than full-time jobs. To account for this, IMPLAN has a multiplier to convert annual jobs to full-time equivalent jobs. Therefore, the Current plan scenario has five additional years than the last Accelerated Scenario. The additional years impacts the calculations that accounts for the additional jobs needed to complete the plan.

³ The social value of CO₂ equivalent reductions is valued using a social cost of carbon (SCC) estimate for each metric ton with a 3 percent discount rate; the measure has been estimated by the Environmental Protection Agency through 2050. The total value of CO₂ emissions reductions was calculated starting from 2021, with each year's pipeline improvements/reductions to emissions evaluated through year 2050.

In aggregate, the current approved STRIDE (2042) plan is expected to reduce 2.1 million CO₂ equivalent metric tons of greenhouse gases. To understand this number in more material terms, 2.1 million metric tons of CO₂ is equivalent to the following production measures:

- 464,000 million passenger vehicles driven in one year;
- 248,000 homes' energy use for one year;
- 363,000 homes' electricity use for one year.

Figure ES.3: CO₂ Emissions Equivalencies from STRIDE Programs

	CO2 Emissions Reduction (Metric Tons)	Passenger Vehicles Driven in One Year	Homes' Energy Use for One Year	Homes' Electricity Use for One Year
New Plan 2032	2,591,710	559,922	299,066	438,792
New Plan 2035	2,451,350	529,598	282,870	415,028
New Plan 2037	2,392,940	516,979	276,130	405,139
Current Plan 2042	2,146,650	463,770	247,709	363,441

Table of Contents

- 1. Introduction6
 - 1.1. Purpose of the Report6
 - 1.2. About Baltimore Gas and Electric Company6
 - 1.3. Scope and Methodology6
 - 1.4. Organization of the Report7
- 2. Overview of the STRIDE Program.....9
 - 2.1. About the STRIDE Program9
 - 2.2. Footprint of STRIDE Program’s Spending in Maryland.....10
 - 2.3. Geographic Distribution of STRIDE Program11
- 3. Economic Impact of the STRIDE 2042 Program14
 - 3.1. Direct Capital Investment for the Current STRIDE 2042 Plan14
 - 3.2. Potential Economic Impact from Capital Investments in STRIDE’s Current 2042 Plan15
 - 3.3. Industry Distribution of Economic Impact from Capital Investments15
 - 3.4. Potential Local and State Tax Revenue Impact Capital Investments in STRIDE’s Current 2042 Plan16
 - 3.5. Potential Spending Impact on Diverse Businesses17
- 4. Alternative STRIDE Program Scenario Analysis18
 - 4.1. Direct Capital Investment from Accelerated Investment Scenarios18
 - 4.2. Potential Economic Impact from Accelerated Investment Scenarios19
 - 4.3. Potential Local and State Tax Revenue Impact from Accelerated Investment Plans20
 - 4.4. Potential Spending Impact on Diverse Businesses21
- 5. Broader Impacts Associated with STRIDE Program Investments22
 - 5.1. Environmental Impacts22
 - 5.2. Health Impacts24
 - 5.3. Key Findings26
- 6. Appendix28
 - 6.1. About Econsult Solutions, Inc.28
 - 6.2. Appendix B: Methodology29
 - 6.3. Appendix C: County-Level Economic and Fiscal Impacts31

1. Introduction

1.1. Purpose of the Report

The purpose of this report is to articulate the impacts of Baltimore Gas and Electric Company's (BGE) Strategic Infrastructure Development and Enhancement (STRIDE) program at a local, regional, and statewide level. Through the comprehensive modernization plan, BGE will produce impacts through its upfront construction, which will create economic opportunities, support jobs, and generate tax revenues in addition to broader societal impacts on the environment and public health. Currently, the infrastructure improvement plan includes investments through 2042. The analysis will include a comparison of the impacts of scenarios in which the STRIDE plan is completed on quicker timetables.

1.2. About Baltimore Gas and Electric Company

BGE serves more than 1.3 million electric customers and more than 680,000 gas customers in a diverse, 2,300-square-mile area encompassing Baltimore City and all or part of 10 central Maryland counties.⁴ With a history of more than 200 years of service as the first gas utility in the U.S., BGE has a long-standing commitment to its customers and the community. BGE was established in 1816 when Rembrandt Peale lit the first gas lamp in Baltimore, and it continues two centuries later with BGE and its customers still leading the way in energy innovation. Today the company is one of the 25 largest private employers in Maryland.⁵

1.3. Scope and Methodology

Within this report, Econsult Solutions, Inc. (ESI) employs industry-standard modeling techniques to estimate the direct economic activity generated by BGE's STRIDE program within its service area and the state of Maryland. Those direct impacts are then translated into total economic output, employment, associated earnings, and tax revenue impact using industry-standard input-output modeling. The appendix of this report describes the approach and methodology in detail.

Data inputs on operating activity and capital investments were provided by BGE. ESI verified and supplemented these data with other public data sources and assumptions as needed. For each input, the most recent and appropriate dataset is used to show the annual and aggregate economic impact from the operating activity expected to be generated from the current approved STRIDE 2042 plan and further accelerated scenarios. A seven percent discount rate was applied to expenditures to ensure that

⁴ The ten central Maryland counties are Baltimore County, Anne Arundel County, Howard County, Harford County, Carroll County, Cecil County, Frederick County, Montgomery County, Prince George's County, and Calvert County.

⁵ Maryland Department of Labor, "Maryland Major Employer Lists," <https://www.dllr.state.md.us/lmi/emplists/maryland.shtml>.

the data remained consistent over time intervals. The discount rate is consistent with the Federal Rate set by The Office of Management & Budget.⁶

Figure 1.1: Economic Impact Methodology



Source: Econsult Solutions, Inc. (2020)

Economic impact results are calculated for the BGE service area and the state of Maryland. Key outputs include total economic output, employment supported, and earnings supported. In this report, the economic impacts are generated solely from STRIDE project investments and exclude broader impacts on the economy via surcharges and rate changes associated with the capital program.

Tax revenue impacts are expressed for the State of Maryland and the jurisdictions in the BGE service area. Fiscal modeling accounts for which types of economic activity are and are not subject to taxation specific to the taxing jurisdiction. STRIDE's economic activity generates taxable activity (for example, jobs and retail development) for the State of Maryland, as well as suburban municipalities, surrounding county governments, and other nearby state governments. These amounts are smaller and more diffuse than those calculated for the State, service area counties, and the City of Baltimore and are excluded from this analysis to be conservative.

1.4. Organization of the Report

BGE commissioned Econsult Solutions, Inc. (ESI) to complete an analysis of the potential economic and fiscal impacts of the BGE's current approved STRIDE program as well as comparing the impacts of scenarios in which the STRIDE plan is completed on quicker timetables.⁷ The purpose of this analysis is to estimate the direct economic footprint and the spillover activity related to capital investments from STRIDE plans and ongoing operations. In addition, this report describes the many ways in which

⁶Circular A-94, Guidelines and Discount Rates for Cost Benefits Analysis of Federal Programs. <https://www.wbdg.org/FFC/FED/OMB/OMB-Circular-A94.pdf>

⁷ Townson University completed an economic impact study for the Washington Gas Light Company's STRIDE program in 2018 to quantify the impacts of gas infrastructure replacements over two time periods, which has no bearing on the results of this study: Irani, Darius, et al. "Economic Impacts of Natural Gas Infrastructure Spending." Regional Economic Studies Institute Townson University, July 2018.

investments in public infrastructure support and enrich the local economy. The report is organized as follows:

- **Section 2: Overview of the STRIDE Program** contains information on the background of BGE's STRIDE program and its geographic footprint in the state of Maryland.
- **Section 3: Economic Impact of the STRIDE Program** quantifies the impact of capital investment and from the current STRIDE 2042 program, including an analysis of other industries that benefit economically from the activity as well as a fiscal analysis.
- **Section 4: Alternative Scenario Analysis** quantifies the impact of capital investment from the alternate STRIDE program timelines (2037, 2035, and 2032) including a fiscal analysis.
- **Section 5: Modeling Broader Impacts Associated with STRIDE** quantifies the potential environmental and health benefits associated with the overall reduction of greenhouse gas emission from STRIDE program infrastructure improvements.
- **Section 6: An Appendix** that provides additional methodology and analytical results at more granular geographies.

2. Overview of the STRIDE Program

Strategic investments in public infrastructure are an essential component of a region's economic vitality as well as the health and well-being of local communities. These investments can generate a significant upfront economic return in terms of output, jobs, and labor income, as well as tax revenues to local jurisdictions and the state. Further, investments through the STRIDE program will reduce emissions and pollutants into the region's environment; the value of these metrics can be quantified in economic and societal terms that are useful for stakeholders to understand their broader value. This report articulates the magnitude of the impact generated from this distinctive program and, where possible, quantifies those impacts locally, regionally, and statewide. These quantifications represent the impact of the STRIDE program's current and future investments as a force for good at the local and regional. As such, they demonstrate the upfront economic impacts generated by public infrastructure to local jurisdictions, to the Central Maryland region, and society as a whole.

2.1. About the STRIDE Program

The Strategic Infrastructure Development and Enhancement, or STRIDE plan is a multi-decade long agenda for natural gas system modernization and infrastructure improvement. The STRIDE program was made possible by legislation now codified in the Public Utilities Article, Annotated Code of Maryland (MD Pub Util Article § 4-210 (2013)) encouraging natural gas companies to accelerate infrastructure improvement by providing a mechanism for recovering the financial costs of systematic investments through a fixed annual surcharge.⁸ STRIDE aims to improve the safety and reliability of natural gas delivery for decades to come above and beyond the current standard of maintenance. The replacement of cast iron, bare steel, pre-1970 ¾" HP steel services, and other outmoded materials drastically decrease the leakage of natural gas and the need for repairs. A central component of STRIDE is the targeted approach to infrastructure improvements by upgrading all the natural gas main and pipes in an entire neighborhood, work that is done through BGE's Operation Pipeline, which is part of BGE's STRIDE program. Antiquated pipes and mains are replaced with durable equipment, designed to better serve thousands of customers throughout the Central Maryland region.

BGE completed its first STRIDE plan in 2018 and received permission from the Maryland Public Service Commission to begin a STRIDE 2 plan in 2019 to further accelerate infrastructure improvements.⁹ Currently, the comprehensive modernization plan includes investments through 2042. BGE has also considered internally three alternate plans with expedited investments concluding in 2037, 2035, and 2032. This report will seek to quantify the economic impact associated with the direct infrastructure investments for the current approved 2042 plan (Section 3) as well as alternative plans (Section 4).

⁸ 2013 Maryland Code PUBLIC UTILITIES § 4-210 - Infrastructure replacement surcharge. <https://law.justia.com/codes/maryland/2013/article-gpu/section-4-210/>

⁹ STRIDE Fact Sheet, Baltimore Gas & Electric Company. <https://www.bge.com/SafetyCommunity/Safety/Documents/STRIDE%20Fact%20Sheet%202-10-15.pdf>

2.2 Footprint of STRIDE Program's Spending in Maryland

The proposed STRIDE Program's investment timeframe would shift the value of these investments in 2020 dollars. Figures 2.1 and 2.2 outline each scenario's anticipated expenditures by labor and non-labor expenditures and then discounted based on the spending schedule during each scenario. Because of the time-value of money, upfront expenditures will be worth more than those that happen in the future; hence, the total expenditures for the current STRIDE Plan (2042) appears higher than the acceleration scenarios until discounted. The analysis completed in this report is only evaluating the economic impacts of this spending activity and does not further analyze or weigh in on the tradeoffs of spending sooner on these investments or their potential costs on the regional economy in the form of customer surcharges or rate increases.

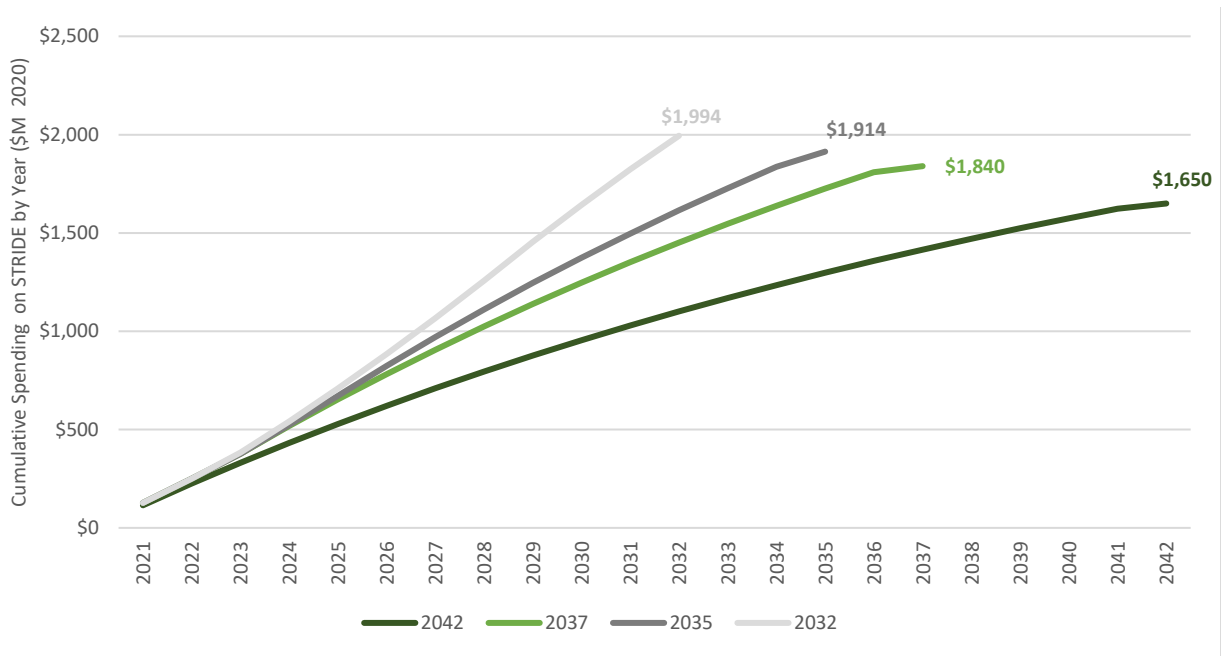
Figure 2.1: STRIDE Program Expenditures Depending on Planned Timeframe, in 2020 Present Value Dollars

	2032 Scenario	2035 Scenario	2037 Scenario	2042 Plan
Non-Labor Expenditures (\$M)	\$2,771	\$2,824	\$2,819	\$2,936
Labor Expenditures (\$M)	\$493	\$503	\$502	\$523
Total Expenditures (\$M)	\$3,265	\$3,327	\$3,321	\$3,458
Discount Rate ¹⁰	7%	7%	7%	7%
Total Expenditures in \$2020 (\$M)	\$1,994	\$1,914	\$1,840	\$1,650
Total Direct Jobs and Contractors	9,520	9,420	8,570	10,780

Source: Baltimore Gas & Electric (2020), Econsult Solutions, Inc. (2020)

¹⁰ A discount rate was used in order to keep the investment spending over time comparable by expressing it the value in present dollars. For a further methodology, see Circular A-94, Guidelines and Discount Rates for Cost Benefits Analysis of Federal Programs. <https://www.wbdg.org/FFC/FED/OMB/OMB-Circular-A94.pdf> and <https://www.epa.gov/sites/production/files/2017-09/documents/ee-0568-06.pdf>

Figure 2.2: Cumulative STRIDE Program Expenditures Current and Accelerated Plans, in Nominal Dollars

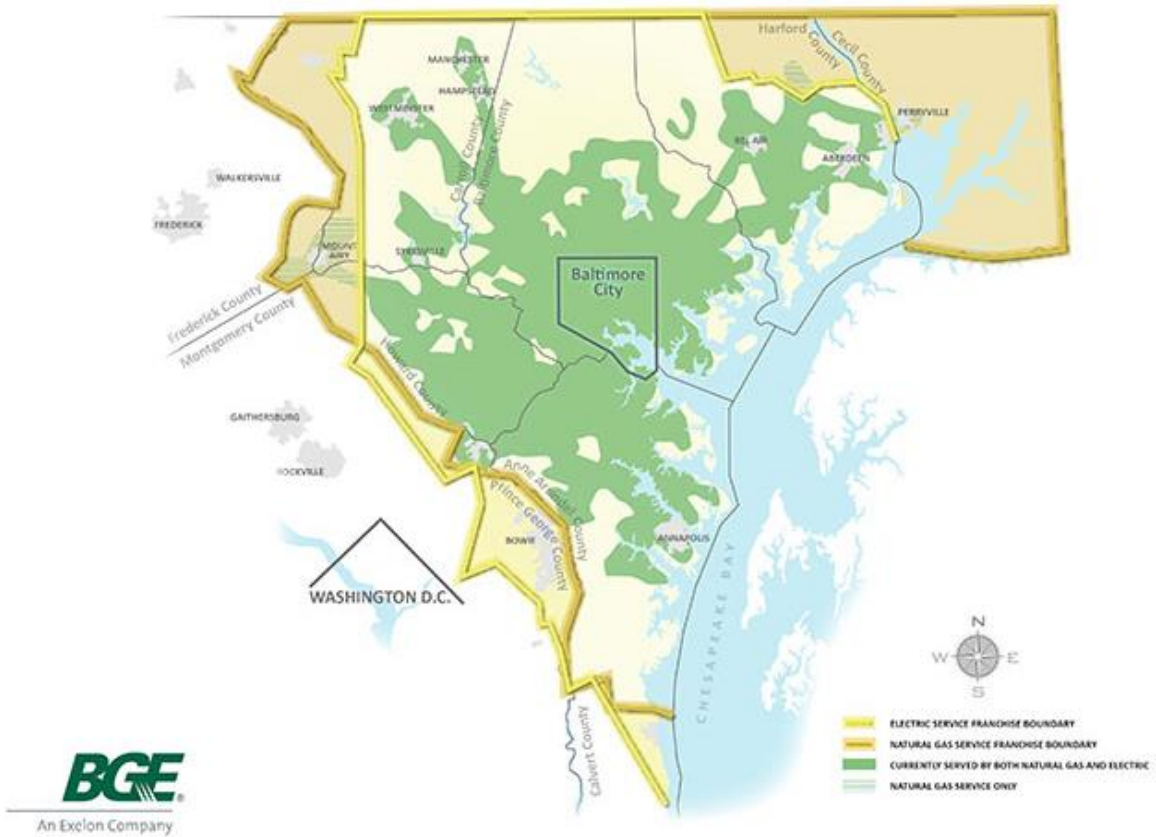


Source: Baltimore Gas and Electric Company (2020), Econsult Solutions, Inc. (2020)

2.3 Geographic Distribution of STRIDE Program

The economic impacts in this report are discussed at two different levels: the BGE service area and the state of Maryland. The BGE service area includes parts of Baltimore City and ten central Maryland counties including Baltimore County, Anne Arundel County, Howard County, Harford County, Carroll County, Cecil County, Frederick County, Montgomery County, Prince George’s County, and Calvert County (see Figure 2.5). For the purpose of this analysis, the analysis of economic impacts on the BGE service area includes the spillover activity occurring in each county, even if the BGE only provides service to a portion of the county.

Figure 2.3: Baltimore Gas and Electric Company Service Area



Source: Baltimore Gas and Electric Company (2020)

While most Operation Pipeline projects occur within Baltimore City, STRIDE has a significant economic presence throughout the BGE service area (see Figure 2.4). The majority of main mile replacement for STRIDE's current approved 2042 plan happens in Baltimore City, Baltimore County, and Anne Arundel County.

Figure 2.4: STRIDE 2042 Miles of Mains to be Replaced by Geography

County	Percentage of Total Main Miles
Baltimore City	72.2%
Baltimore County	23.9%
Anne Arundel County	3.4%
Balance of Service Territory	0.5%
Total	100%

Source: Baltimore Gas and Electric Company (2020)

However, labor and procurement spending is further distributed throughout the service area and the state of Maryland. This direct spending also further circulates throughout these economies through spillover waves of spending on goods and services. This report will seek to quantify the economic impacts of STRIDE at these geographic levels.

3. Economic Impact of the STRIDE 2042 Program

The direct capital investments made through the STRIDE Program represent a significant boost to the local and state economies. Direct construction activity puts construction workers and their professional service providers to work, who in turn spend a portion of their salaries and wages within the local and state economies. It also catalyzes the procurement of a wide range of goods and services, which translates into new economic opportunities for local and state vendors.

The aggregate impact generated during the 22-year construction period will produce a \$2.5 billion impact to the state of Maryland, supporting 14,780 full-time equivalent jobs and \$929 million in labor income.

3.1 Direct Capital Investment for the Current STRIDE 2042 Plan

The upfront construction of the natural gas system modernization and infrastructure improvements is anticipated to be \$3.5 billion.

However, an adjustment needs to be made to represent the current economic impact from the capital investments in 2020 present value. The \$3.5 billion was adjusted using a seven percent discount rate across the 22-year time period of construction, which results in \$1.6 billion in 2020 present value dollars. Since not all spending is directly occurring in the state, the modeled capital expenditures are \$1.4 billion in 2020 present value dollar (see Figure 3.1).

Figure 3.1: Cumulative Direct Capital Investments Made by the STRIDE Program, 2042 Program

	2042 Capital Investments
Non-Labor Expenditures (\$M)	\$2,936
Labor Expenditures (\$M)	\$523
Total Expenditures (\$M)	\$3,458
Discount Rate ¹¹	7%
Total Expenditures in \$2020 (\$M)	\$1,650
Total Expenditures made out of State in \$2020 (\$M)	\$235
Modeled Expenditures (\$M)	\$1,415
Total Direct Jobs and Contractors	10,780
Out of State Jobs and Contractors	1,190
Modeled Direct Jobs and Contractors (in state)	9,590

Source: Baltimore Gas and Electric Company (2020), Econsult Solutions, Inc. (2020)

¹¹ A discount rate was used in order to keep the investment spending over time comparable by expressing it the value in present dollars. For a further methodology, see: <https://www.epa.gov/sites/production/files/2017-09/documents/ee-0568-06.pdf>.

3.2 Potential Economic Impact from Capital Investments in STRIDE's Current 2042 Plan

The capital investments made by the STRIDE program will have a significant impact on the local and state economies. Within the BGE service area, the cumulative economic impact will be \$2.47 billion, supporting 14,670 jobs, and \$926 million in labor income. Within the state, the cumulative economic impact will be \$2.5 billion i, supporting 14,780 jobs, and \$929 million in labor income.¹² See the Appendix for detailed economic impacts by county in the BGE service area.

Figure 3.2: Potential Economic Impact of the STRIDE Program, Current 2042 Plan in BGE Service Area and the Maryland

Impact Type	BGE Service Area	Maryland
Direct Output (\$M)	\$1,415	\$1,415
Indirect and Indirect Impact (\$M)	\$1,054	\$1,083
Total Impact (\$M)	\$2,470	\$2,498
Employment Supported (FTE)	14,670	14,780
Labor Income (\$M)	\$926	\$929

Source: Baltimore Gas and Electric Company (2020), Econsult Solutions, Inc. (2020), IMPLAN

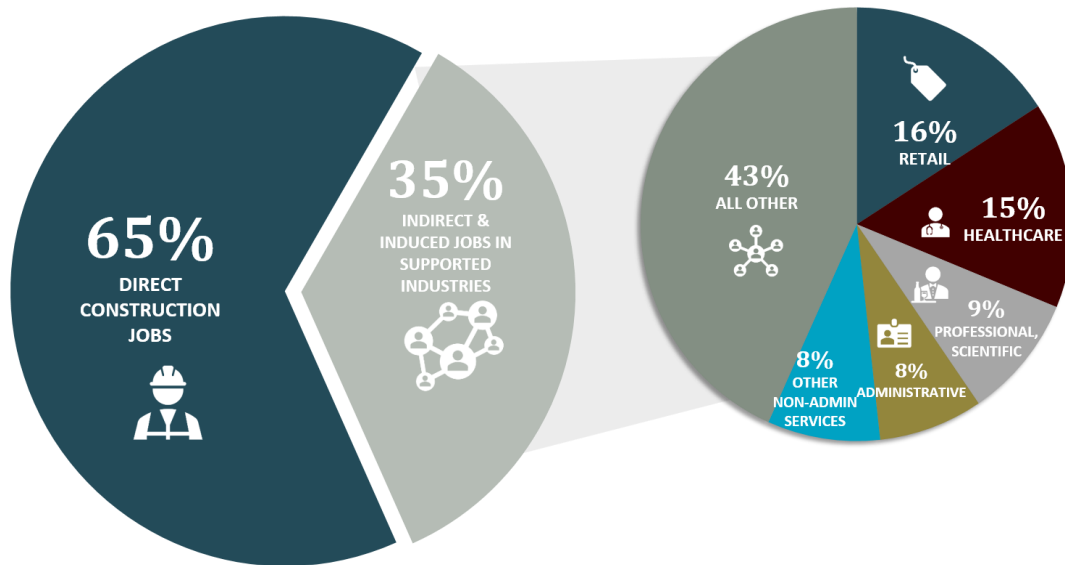
3.3 Industry Distribution of Economic Impact from Capital Investments

The economic impacts associated with the upfront capital investment affect a wide range of industries, far beyond the construction sector. While the construction industry is the largest individual beneficiary from these investments, other industries including retail, healthcare, and other professional services also see significant benefits from the indirect (supply chain) and induced (labor income) impacts of the capital activity. In other words, the economic activity supports various industries such as health care through the purchase of employee benefits, or the accommodation and food industry when a construction worker goes out and spend their earnings on lunch at nearby restaurants (see Figure 3.3).

Note that because the spending patterns for each of the STRIDE program scenarios are similar (aside from time frame) the industry impacts articulated in the figure below are consistent across the four scenarios.

¹² See Appendix 6.3 for county level economic impacts of the STRIDE program.

Figure 3.3: Industry Distribution of Employment Generated from the STRIDE 2042 Program within Maryland



Source: Baltimore Gas and Electric Company (2020), Econsult Solutions, Inc. (2020), IMPLAN

3.4 Potential Local and State Tax Revenue Impact from Capital Investments in STRIDE's Current 2042 Plan

The cumulative capital investments also generate State tax revenues during the period of construction. The direct activity from the STRIDE program's current plan and its indirect and induced economic impacts would generate approximately \$94.3 million in income, sales, and business taxes to the State of Maryland over the 22-year construction period. At the county level, this activity would generate approximately \$11.3 million in income tax across all counties in the BGE service area. See the Appendix for detailed tax impacts by county in the BGE service area.

Figure 3.4: Potential Tax Revenue Impact from the STRIDE Program, Current 2042 Plan to Counties in the BGE Service Area and to the State of Maryland

Tax Type	All Counties	Maryland
Income	\$11.3	\$35.9
Sales	-	\$17.5
Business	-	\$40.9
Total (\$M)	\$11.3	\$94.3

Source: Baltimore Gas and Electric Company (2020), Econsult Solutions, Inc. (2020), State of Maryland CAFR (2019)

3.5 Potential Spending Impact on Diverse Businesses

BGE has displayed a commitment to diversity, equity, and inclusion goals and objectives, most notably through the launch of *Focus Forward*, a strategic, small business development program in 2013. This program helps educate smaller, diversity certified businesses about how to navigate large business processes and better compete for contract opportunities. Focus Forward provides a unique educational opportunity to diversity-certified suppliers to learn from key BGE decision-makers about how to better to compete for sourcing opportunities and ultimately grow their business. As of FY 2019, BGE has reported that 42 percent of spending on procurement has been to Diverse Certified Businesses.

As a major capital investment program, STRIDE represents a key opportunity to further direct spending with local, diverse businesses. In the past few years, BGE has reached approximately 25 percent of program spending with local, diverse businesses, and endeavors to work towards 35 percent.

Figure 3.5 demonstrates potential spending scenarios by examining the purchasing component of the STRIDE program's budget, adjusting to 2020 dollars. If BGE meets those procurement targets (which BGE has in fact exceeded in recent years) STRIDE's spending could result in \$350 million or more in spending specifically with Diverse Certified Businesses (in the current 2042 spending scenario).

Figure 3.5: Potential Spending (\$2020) to Diverse Certified Businesses from the STRIDE Program, Current 2042 Plan

	Total Non-Labor Spending	Potential Spending with Diverse Businesses	
		25% Participation Target	35% Participation Target
Non-Labor Spending (\$M)	\$1,400	\$350	\$490

Source: Baltimore Gas and Electric Company (2020), Econsult Solutions, Inc. (2020)

4 Alternative STRIDE Program Scenario Analysis

The prior section showed the economic impact from the STRIDE program at its current plan, with construction activities anticipated to occur from 2021 to 2042. In this section, three, alternate scenarios and their economic impacts are shown if the STRIDE program timeline was accelerated and completion of the infrastructure improvements occurred faster.

In the aggregate, the cumulative economic impacts from construction are larger if the time period for completion is shortened. The cumulative economic impacts to the state of Maryland are shown by scenario below:

- If completed by 2032, the cumulative economic impacts will be \$3.02 billion impact to the state of Maryland, supporting 15,340 full-time equivalent jobs.
- If completed by 2035, the cumulative economic impacts will be \$2.90 billion impact, supporting 14,590 full-time equivalent jobs.
- If completed by 2037, the cumulative economic impacts will be \$2.78 billion, supporting 13,420 full-time equivalent jobs.

4.1 Direct Capital Investment from Accelerated Investment Scenarios

As mentioned in the prior section, data provided by BGE illustrated three alternate scenarios if the capital investments were accelerated to these respective years: 2032, 2035, or 2037. Because the capital investments are not in 2020 dollars, a discount rate of seven percent was applied for these alternate scenarios to show the economic impact in 2020 dollars. Not all spending is occurring within the state; therefore, the modeled capital expenditures were adjusted for each scenario, \$1.71 billion in cumulative modeled spending by 2032, \$1.64 billion in cumulative modeled spending by 2035, and \$1.58 billion in cumulative modeled spending by 2037.

Figure 4.1: Cumulative Direct Capital Investments made by the STRIDE Programs by Alternate Scenario

	Accelerated Scenarios			Current Plan
	2032	2035	2037	2042
Non-Labor Expenditures (\$M)	\$2,771	\$2,824	\$2,819	\$2,936
Labor Expenditures (\$M)	\$493	\$503	\$502	\$523
Total Expenditures (\$M)	\$3,265	\$3,327	\$3,321	\$3,458
Discount Rate	7%	7%	7%	7%
Total Expenditures in \$2020 (\$M)	\$1,994	\$1,914	\$1,840	\$1,650
Total Expenditures made of out of State in \$2020 (\$M)	\$284	\$272	\$262	\$235
Modeled Expenditures (\$M)	\$1,711	\$1,641	\$1,578	\$1,415
Total Direct Jobs and Contractors	9,520	9,420	8,570	10,780
Out of State Jobs and Contractors	1,050	1,040	940	1,190
Modeled Direct Jobs and Contractors (in state)	8,470	8,380	7,630	9,590

Source: Baltimore Gas and Electric Company (2020), Econsult Solutions, Inc. (2020)

4.2 Potential Economic Impact from Accelerated Investment Scenarios

The capital investments made in each alternate STRIDE program will have significant cumulative impacts on the local and state economies. Within the BGE service area, the cumulative economic impacts by scenario are as follows:

- If completed by 2032, the cumulative economic impact will be \$2.98 billion in the BGE service area, supporting 15,200 full-time equivalent jobs, and \$1.12 billion in labor income. The capital investments will produce a \$3.02 billion impact to the state of Maryland, supporting 15,340 full-time equivalent jobs and \$1.12 billion in labor income.
- If completed by 2035, the cumulative economic impact will be \$2.9 billion in the BGE service area, supporting 14,460 full-time equivalent jobs, and \$1.08 billion in labor income. The capital investments will produce a \$2.90 billion impact to the state of Maryland, supporting 14,590 full-time equivalent jobs and \$1.08 billion in labor income.
- If completed by 2037, the cumulative economic impact will be \$2.75 billion in the BGE service area, supporting 13,300 full-time equivalent jobs, and \$1.03 billion in labor income. The capital investments will produce a \$2.78 billion impact to the state of Maryland, supporting 13,420 full-time equivalent jobs and \$1.04 billion in labor income.

See the Appendix for detailed economic impacts by county in the BGE service area.

Figure 4.2: Potential Economic Impact of the STRIDE Programs, by Scenario in the BGE Service Area

Impact Type	Accelerated Scenarios			Current Plan
	2032	2035	2037	2042
Direct Output (\$M)	\$1,711	\$1,641	\$1,578	\$1,415
Indirect and Induced Impact (\$M)	\$1,275	\$1,223	\$1,176	\$1,054
Total Impact (\$M)	\$2,985	\$2,864	\$2,754	\$2,470
Employment Supported (FTE)¹³	15,200	14,460	13,300	14,670
Labor Income (\$M)	\$1,032	\$1,074	\$1,032	\$926

Source: Baltimore Gas and Electric Company (2020), Econsult Solutions, Inc. (2020), IMPLAN

Figure 4.3: Potential Economic Impact of the STRIDE Programs by Scenario in Maryland

Impact Type	Accelerated Scenarios			Current Plan
	2032	2035	2037	2042
Direct Output (\$M)	\$1,711	\$1,641	\$1,578	\$1,415
Indirect and Induced Impact (\$M)	\$1,309	\$1,256	\$1,207	\$1,083
Total Impact (\$M)	\$3,019	\$2,897	\$2,785	\$2,498
Employment Supported (FTE)¹⁴	15,340	14,590	13,420	14,780
Labor Income (\$M)	\$1,123	\$1,078	\$1,036	\$929

Source: Baltimore Gas & Electric (2020), Econsult Solutions, Inc. (2020), IMPLAN

4.3 Potential Local and State Tax Revenue Impact from Accelerated Investment Plans

The cumulative capital investments also generate state tax revenues during the period of construction. The following tables show the fiscal impact by scenario/investment plan. See the Appendix for detailed tax impacts by county in the BGE service area.

- If completed by 2032, economic activity from the STRIDE program would generate approximately \$113.9 million in income, sales, and business taxes to the State of Maryland and \$12.7 million in taxes to all the counties in the BGE service area.

¹³ IMPLAN generates job estimates based on the term "job-years", or how many jobs will be supported each year. For instance, if a construction project takes two years, and IMPLAN estimates there are 100 employees, or more correctly "job-years" supported, over two years, that represents 50 annual jobs. Additionally, there may be a mix of full and part-time employment. Consequently, job creation could feature more part-time jobs than full-time jobs. To account for this, IMPLAN has a multiplier to convert annual jobs to full-time equivalent jobs.

¹⁴ IMPLAN generates job estimates based on the term "job-years", or how many jobs will be supported each year. For instance, if a construction project takes two years, and IMPLAN estimates there are 100 employees, or more correctly "job-years" supported, over two years, that represents 50 annual jobs. Additionally, there may be a mix of full and part-time employment. Consequently, job creation could feature more part-time jobs than full-time jobs. To account for this, IMPLAN has a multiplier to convert annual jobs to full-time equivalent jobs.

- If completed by 2035, economic activity from the STRIDE program would generate approximately \$109.3 million in income, sales, and business taxes to the State of Maryland and \$12.7 million in taxes to all the counties in the BGE service area.
- If completed by 2037, economic activity from the STRIDE program would generate approximately \$105.1 million in income, sales, and business taxes to the State of Maryland and \$11.7 million to all the counties in the BGE service area.

Figure 4.4: Potential Tax Revenue Impact from the STRIDE Program by Alternate Scenario to All Counties in BGE Service Area and the State of Maryland

	Accelerated Scenarios			Current Plan
	2032	2035	2037	2042
Total Tax Revenue Impact (\$M)				
State of Maryland Total	\$113.9	\$109.3	\$105.1	\$94.3
Income	\$43.4	\$41.6	\$40.0	\$35.9
Sales	\$21.1	\$20.3	\$19.5	\$17.5
Business	\$49.4	\$47.4	\$45.6	\$40.9
All Counties in BGE Service Area¹⁵	\$12.7	\$12.7	\$11.7	\$11.3

Source: Baltimore Gas and Electric Company (2020), Econsult Solutions, Inc. (2020), State of Maryland CAFR (2019), Various Counties CAFRs (2019)

4.4 Potential Spending Impact on Diverse Businesses

Similar to Section 3.5, the following figure highlights the potential spending to Diverse Certified Businesses based on various STRIDE acceleration scenarios, using 2020 dollars and assuming various participation goals demonstrates potential spending scenarios by examining the purchasing component of the STRIDE program's budget, adjusting to 2020 dollars and assuming different participation goals.

Figure 4.5: Potential Spending (2020 dollars) to Diverse Certified Businesses from the STRIDE Program, Alternative Scenarios

	Accelerated Scenarios			Current Plan
	2032	2035	2037	2042
Non-Labor Expenditures (\$M)	1692	\$1,624	\$1,562	\$1,400
Potential Spending, 25% Target (\$M)	\$423	\$406	\$390	\$350
Potential Spending, 35% Target (\$M)	\$592	\$589	\$547	\$490

Source: Baltimore Gas and Electric Company (2020), Econsult Solutions, Inc. (2020)

¹⁵ Potential County taxes calculated for wage taxes within each county where STRIDE improvements were analyzed. See Appendix for more detailed breakdown by County.

5 Broader Impacts Associated with STRIDE Program Investments

BGE's current approved STRIDE 2042 plan produces direct economic impacts through its operations, capital investments, and employment. Further accelerated STRIDE scenarios increase the scope and economic impact of infrastructure investments. This section explores yet another gain to the regional and state economies – the value of reductions in greenhouse gas emissions. The continued reduction of methane and carbon dioxide emission from BGE's gas distribution system has significant impacts on, not only the environment but the health and well-being of the local and global population.

5.1 Environmental Impacts

The prevention of natural gas leakages reduces the overall presence of greenhouse gases in the atmosphere and generates significant societal benefits. This subsection analyzes conversion of greenhouse gas emissions to CO₂ equivalencies, common units for the monetizing of greenhouse gases, to determine the appropriate estimate of the social cost of carbon to calculate the economic impacts of reducing leakages.

Natural gas is composed of several hydrocarbon gases such as ethane, propane, butane, carbon dioxide, oxygen, nitrogen, hydrogen sulfide, but is formed primarily of methane (CH₄). Methane is the second most abundant greenhouse gas originating from human activity, after carbon dioxide. Methane directly contributes to global warming, and while it is a short-lived pollutant, it is 25 times as potent as carbon dioxide in terms of trapping heat in the atmosphere.¹⁶

Various studies quantify the effects of greenhouse gas emissions in economic terms by estimating a numeric value for the social cost of carbon (SCC). SCC is an estimate of the economic damages incurred from the addition of one marginal ton of carbon dioxide in the atmosphere. **SCC is a comprehensive estimate of cost including agricultural productivity, fluctuations in energy, property damages from flood risks, and human health. Estimates of SCC vary based on the assumptions made when creating the model such as geographic scope and future cost discount rates.** The discount rate used to estimate SCC, similar to that used in a present value calculation, converts the cost of future pollution into present-day value. SCC is highly sensitive to discount rates, as the total damages from greenhouse gas emissions are calculated as far out as the year 2300.¹⁷

The Interagency Working Group on the Social Cost of Greenhouse Gases (IWG), formed to establish a federal government standard for SCC estimates in regulatory analysis, developed the methodology used to estimate the global and domestic SCC.¹⁸ Although there is no universal consensus on the appropriate

¹⁶ "Importance of Methane." United States Environmental Protection Agency, <https://www.epa.gov/gmi/importance-methane>

¹⁷ EPA Fact Sheet: Social Cost of Carbon, U.S. Environmental Protection Agency, December 2016, https://www.epa.gov/sites/production/files/2016-12/documents/social_cost_of_carbon_fact_sheet.pdf

¹⁸ The IWG was disbanded in 2017 by Executive Order 13783 (E.O. 13783 of Mar 28, 2017). <https://www.federalregister.gov/documents/2017/03/31/2017-06576/promoting-energy-independence-and-economic-growth>

rate, a 3 percent discount rate is used as the central value by the IWG to reflect the rate that society discounts future consumption.¹⁹ SCC estimates grow over time as physical and economic systems become more stressed in response to environmental changes, producing larger incremental damage. The social value of reducing a metric ton of greenhouse gas emissions in 2020 is \$53 globally and \$8 domestically (see Figure 5.1).

Figure 5.1: Global and Domestic Social Cost of CO₂ per Metric Ton, 2015 – 2050 (2020 dollars)

<u>Year</u>	<u>Global SCC</u>	<u>Domestic SCC</u>
2015	\$45	\$6
2020	\$53	\$8
2025	\$58	\$8
2030	\$63	\$9
2035	\$69	\$10
2040	\$76	\$10
2045	\$81	\$11
2050	\$87	\$12

Source: Interagency Working Group on Social Cost of Greenhouse Gases (2016), U.S. Environmental Protection Agency (2019)

Comparison of STRIDE Plan Scenarios

Although the environmental impact of the STRIDE scenarios is felt at both a national and international level, the reduction of gas emissions originates from counties in the BGE service area based on infrastructure replacement activity. Each mile of gas main replaced avoids additional leakages in the subsequent year for the entire lifespan of the updated equipment, creating a cumulative benefit of reducing CO₂ equivalent tons of greenhouse gas emissions.²⁰ Given that the value of the global and domestic SCC is only projected through 2050, ESI only estimates the costs associated with emissions through that time. Under the current approved STRIDE plan, investments through 2042 will generate \$21 million in societal benefit within the United States and \$156 million globally from reduced greenhouse gas emissions.²¹ Due to the cumulative benefit from replacing gas mains, the accelerated STRIDE 2032 program will produce the greatest emissions reductions and overall value.

The reduction of greenhouse gas emissions from the STRIDE scenarios is estimated to generate the following impacts through 2050 (see Figure 5.2):

- \$25 million domestically and \$185 million in international benefit under the STRIDE 2032 scenario;

¹⁹ Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis, Interagency Working Group on Social Cost of Greenhouse Gases, United States Government, 2016,

https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc_tsd_final_clean_8_26_16.pdf

²⁰ The calculation of greenhouse gas emissions reductions assumes that every 10 miles of gas infrastructure replacement avoid 1,100 metric tons CO₂ in each subsequent year. The total value of CO₂ emissions reductions includes impacts from 2021 through 2050.

- \$24 million domestically and \$177 million in international benefit under the STRIDE 2035 scenario;
- \$23 million domestically and \$173 million in international benefit under the STRIDE 2037 scenario; and
- \$21 million domestically and \$156 million in international benefit under the STRIDE 2042 scenario.

Figure 5.2: Social Value of CO₂ Emissions Reduction from STRIDE Programs by Scenario, Through 2050

	CO2 Emissions Reduction (Metric Tons)	Domestic Value of CO₂ Emissions Reduction (\$M)	Global Value of CO₂ Emissions Reduction (\$M)
New Plan 2032	2,591,710	\$24.9	\$185.3
New Plan 2035	2,451,350	\$23.7	\$176.6
New Plan 2037	2,392,940	\$23.2	\$172.7
Current Plan 2042	2,146,650	\$21.0	\$156.4

Source: Baltimore Gas and Electric Company, Econsult Solutions, Inc (2020)

5.2 Health Impacts

A robust body of literature highlights the societal impacts of greenhouse gas emissions on a community, particularly on human health. Methane, the primary component of natural gas, does not directly harm human health but is a key contributor to the rise in tropospheric ozone which is harmful to humans.

Studies have shown that methane is responsible for half of the observed rise in tropospheric ozone globally.²² Because of its atmospheric formation, tropospheric ozone travels with the wind and migrates across national and continental borders (hence why the costs of these emissions are calculated from a domestic or societal perspective). Tropospheric ozone exposure has been associated with a wide variety of health risks. Recent evidence supports the effects of both long and short-term exposure to ozone on respiratory health, including worsened asthma, exacerbated chronic obstructive pulmonary disease (COPD), and respiratory infections.²³ An article in the *Journal of Environmental Health Perspectives* estimated that long-term exposure to ozone was attributed to the premature respiratory death of over one million adults globally in 2010.²⁴ Other studies suggest that exposure to ozone is likely to produce metabolic effects. Additionally, there exists suggestive evidence that exposure to ozone can affect the

²² "Near-term Climate Protection and Clean Air Benefits: Actions for Controlling Short-Lived Climate Forcers." United Nations Environment Programme (UNEP), November 2011, page 4

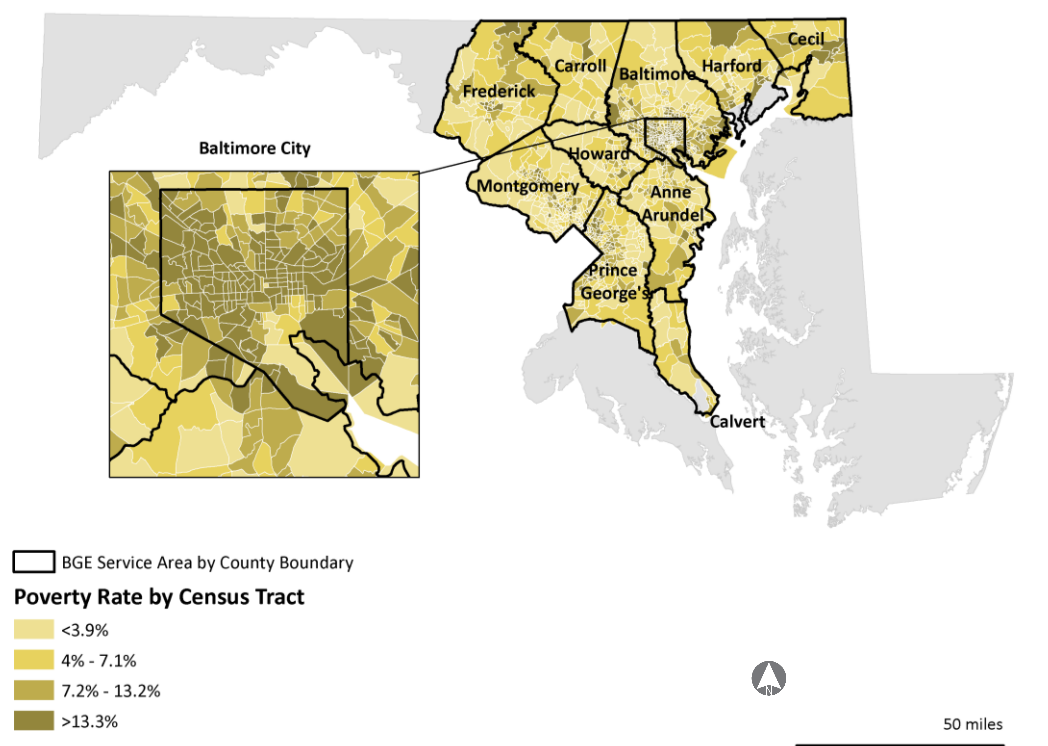
²³ U.S. EPA. Integrated Science Assessment (ISA) for Ozone and Related Photochemical Oxidants (Final Report, Apr 2020). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-20/012, 2020. ES-8.

²⁴ Malley, Christopher S, et al. "Updated Global Estimates of Respiratory Mortality in Adults ≥ 30 Years of Age Attributable to Long-Term Ozone Exposure." National Institute of Environmental Health Sciences, U.S. Department of Health and Human Services, ehp.niehs.nih.gov/doi/10.1289/ehp1390.

cardiovascular and central nervous system and poses a potential threat to reproduction, development, and mortality.²⁵

The localized impact of STRIDE infrastructure replacement work is positively impacting the communities in which it occurs, including low-income communities and communities of color (see Figures 5.3 and 5.4). Various studies document the impacts of income on health, hypothesizing that both the inaccessibility of healthcare for low-income families and the place-based health benefits experienced by more affluent families, such as decreased exposure to environmental pollution, drive the disparities in health outcomes.²⁶ Researchers found that non-Hispanic Black residents experience an increased likelihood of living in areas of worse ozone air quality.²⁷ Challenges related to environmental justice are particularly relevant to BGE since the majority of the Stride Program projects occur in Baltimore City, a predominantly-Black municipality with a poverty rate more than twice that of the nation.²⁸

Figure 5.3: Poverty Rate by Census Tract in BGE Service Area



Source: US Census Bureau American Community Survey (2019), ESRI ArcMap (2020), Econsult Solutions, Inc. (2020)

²⁵ U.S. EPA. Integrated Science Assessment (ISA) for Ozone and Related Photochemical Oxidants (Final Report, Apr 2020). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-20/012, 2020. ES-7.

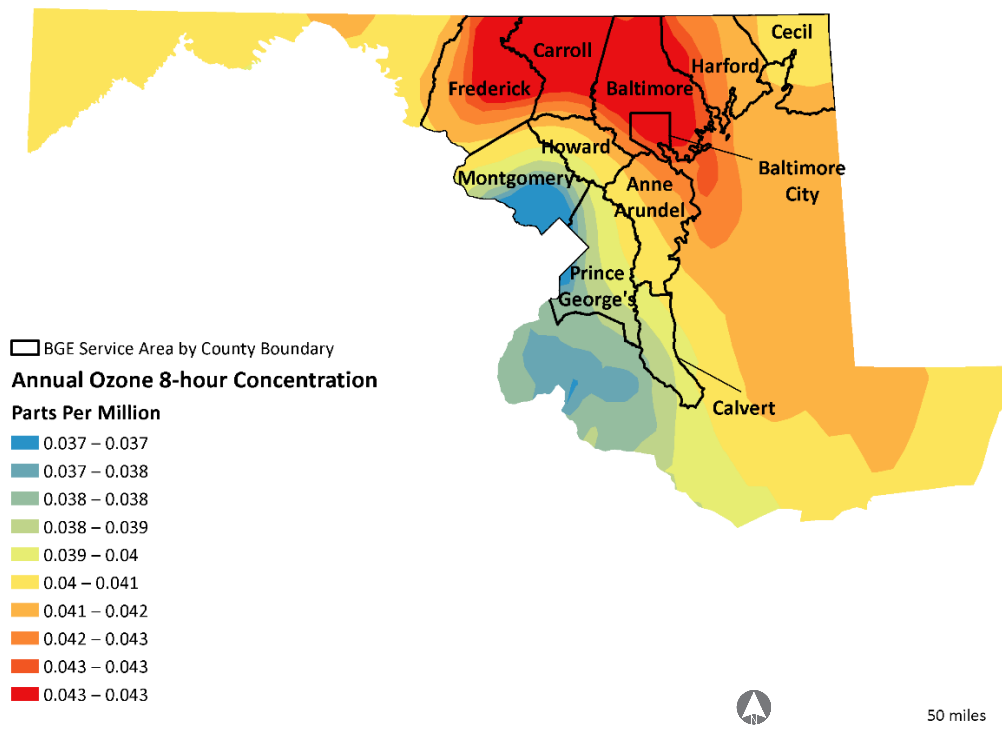
²⁶ "How are Income and Wealth Linked to Health and Longevity". The Urban Institute, April 2015.

<https://www.urban.org/sites/default/files/publication/49116/2000178-How-are-Income-and-Wealth-Linked-to-Health-and-Longevity.pdf>

²⁷ Miranda, Marie Lynn, et al. "Making the Environmental Justice Grade: The Relative Burden of Air Pollution Exposure in the United States." International Journal of Environmental Research and Public Health, June 2011

²⁸ U.S. Census Bureau, American Community Survey, 2019

Figure 5.4: Existing Standard Ozone Concentrations Across Maryland



Source: EPA (2020), ESRI ArcMap (2020), Econsult Solutions, Inc. (2020)

By modernizing natural gas infrastructure, the STRIDE program is improving health outcomes for communities both locally and globally. Replacing aged gas infrastructure reduces natural gas system leakages, which in turn prevents methane from entering the atmosphere that causes the formation of the harmful air pollutant, tropospheric ozone. Exposure to ozone poses many serious health risks ranging from respiratory health to disparities to premature death. The existing disparities in the impact of air pollution make health improvements in the BGE service area all the more crucial. BGE’s investments in the STRIDE program will directly impact the health and well-being of Central Maryland residents for generations to come.

5.3 Key Findings

In aggregate, the current approved STRIDE (2042) plan is expected to reduce 2.1 million CO₂ equivalent metric tons of greenhouse gases. To understand this number in more material terms, 2.1 million metric tons of CO₂ is equivalent to the following production measures:

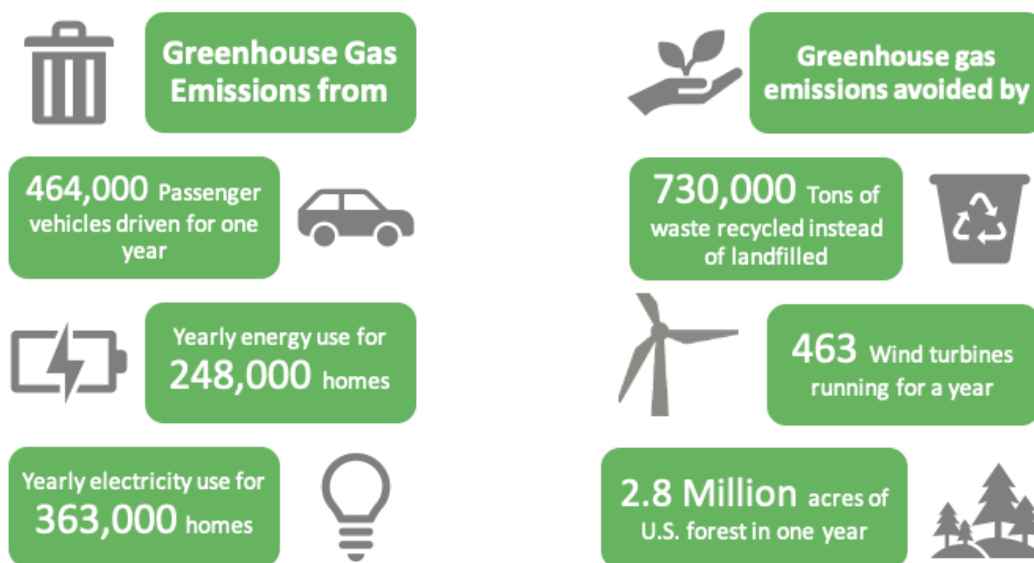


Figure 5.5: CO₂ Emission Equivalencies from STRIDE Programs by Scenario

	CO2 Emissions Reduction (Metric Tons)	Passenger Vehicles Driven in One Year	Homes' Energy Use for One Year	Homes' Electricity Use for One Year
New Plan 2032	2,591,710	559,922	299,066	438,792
New Plan 2035	2,451,350	529,598	282,870	415,028
New Plan 2037	2,392,940	516,979	276,130	405,139
Current Plan 2042	2,146,650	463,770	247,709	363,441

Source: Greenhouse Gas Equivalencies Calculator, U.S. Environmental Protection Agency (2020)

Figure 5.6: CO₂ Reduction Equivalencies from STRIDE Programs by Scenario

	CO2 Emissions Reduction (Metric Tons)	Tons of Waste Recycled Instead of Landfilled	Wind Turbines Running for a Year	Acres of U.S. Forests in One Year
New Plan 2032	2,591,710	881,534	560	3,384,653
New Plan 2035	2,451,350	833,793	529	3,201,349
New Plan 2037	2,392,940	813,925	517	3,125,069
Current Plan 2042	2,146,650	730,153	463	2,803,425

Source: Greenhouse Gas Equivalencies Calculator, U.S. Environmental Protection Agency (2020)

6 Appendix

6.1 About Econsult Solutions, Inc.

This report was produced by Econsult Solutions, Inc. ("ESI"). ESI is a Philadelphia-based economic consulting firm that provides businesses and public policy makers with economic consulting services in urban economics, real estate economics, transportation, public infrastructure, development, public policy and finance, community and neighborhood development, planning, as well as expert witness services for litigation support. Its principals are nationally recognized experts in urban development, real estate, government and public policy, planning, transportation, non-profit management, business strategy and administration, as well as litigation and commercial damages. Staff members have outstanding professional and academic credentials, including active positions at the university level, wide experience at the highest levels of the public policy process and extensive consulting experience.

6.2 Appendix B: Methodology

Economic impact estimates are generated by utilizing input-output models to translate an initial amount of direct economic activity into the total amount of economic activity that it supports, which includes multiple waves of spillover impacts generated by spending on goods and services and by spending of labor income by employees. This section summarizes the methodologies and tools used to construct, use, and interpret the input-output models needed to estimate this project's economic impact.

Input-Output Model Theory

In an inter-connected economy, every dollar spent generates two spillover impacts:

- First, some amount of the proportion of that expenditure that goes to the purchase of goods and services gets circulated back into an economy when those goods and services are purchased from local vendors. This represents what is called the "indirect effect," and reflects the fact that local purchases of goods and services support local vendors, who in turn require additional purchasing with their own set of vendors.
- Second, some amount of the proportion of that expenditure that goes to labor income gets circulated back into an economy when those employees spend some of their earnings on various goods and services. This represents what is called the "induced effect," and reflects the fact that some of those goods and services will be purchased from local vendors, further stimulating a local economy.

The role of input-output models is to determine the linkages across industries in order to model out the magnitude and composition of spillover impact to all industries of a dollar spent in any one industry. Thus, the total economic impact is the sum of its own direct economic footprint plus the indirect and induced effects generated by that direct footprint.

Input-Output Model Mechanics

To model the impacts resulting from the direct expenditures, Econsult Solutions, Inc. developed a customized economic impact model using the IMPLAN input/output modeling system. IMPLAN represents an industry standard approach to assess the economic and job creation impacts of economic development projects, the creation of new businesses, and public policy changes within its surrounding area. IMPLAN has developed a social accounting matrix (SAM) that accounts for the flow of commodities through economics. From this matrix, IMPLAN also determines the regional purchase coefficient (RPC), the proportion of local supply that satisfies local demand. These values not only establish the types of goods and services supported by an industry or institution, but also the level in which they are acquired locally. This assessment determines the multiplier basis for the local and regional models created in the IMPLAN modeling system. IMPLAN takes the multipliers and divides them into 536 industry categories in accordance to the North American Industrial Classification System (NAICS) codes.

The IMPLAN modeling system also allows for customization of its inputs which alters multiplier outputs. Where necessary, certain institutions may have different levels of demand for commodities. When this occurs, an "analysis-by-parts" (ABP) approach is taken. This allows the user to model the impacts of

direct economic activity related to an institution or industry with greater accuracy. Where inputs are unknown, IMPLAN is able to estimate other inputs based on the level of employment, earnings, or output by an industry or institution.

Employment and Labor Income Supported

IMPLAN generates job estimates based on the term "job-years", or how many jobs will be supported each year. For instance, if a construction project takes two years, and IMPLAN estimates there are 100 employees, or more correctly "job-years" supported, over two years, that represents 50 annual jobs. Additionally, these can be a mix of a full and part-time employment. Consequently, job creation could feature more part-time jobs than full-time jobs. To account for this, IMPLAN has a multiplier to convert annual jobs to full-time equivalent jobs.

Income to direct, indirect, and induced jobs is calculated as labor income. This includes wage and salary, all benefits (e.g., health, retirement) and payroll taxes (both sides of social security, unemployment taxes, etc.). Therefore, IMPLAN's measure of income estimates gross pay opposed to just strictly wages.

Tax Revenue Impact

The economic impacts in turn produce one-time or ongoing increases in various tax bases, which yield temporary or permanent increases in various tax revenues. To estimate these increases, ESI created a tax revenue impact model to translate total economic impacts into their commensurate tax revenue gains. These tax revenue gains only account for a subset of the total tax revenue generation that an institution or industry may have on the economy. ESI estimated the income and business tax revenue generated using data from Maryland's FY2020 Comprehensive Annual Financial Report (CAFR). The effective income tax rate was used from the CAFR, along with historical business tax revenue generated in the State to arrive at estimated tax revenue impacts.

6.3 Appendix C: County-Level Economic and Fiscal Impacts

The following tables show the county level impact of the STRIDE program by scenario, for only counties where spending of non-labor expenditures is occurring: 1) Anne Arundel County, 2) Baltimore County, 3) Baltimore City, and 4) Howard County. A discount rate of seven percent to the expenditures by county were applied to show the economic impacts in \$2020.

Figure C.1: Economic Impact from the STRIDE Program in Anne Arundel County

Impact Type	2032	2035	2037	2042
Direct Output (\$M)	\$457.0	\$438.5	\$421.5	\$378.1
Indirect and Induced Impact (\$M)	\$272.6	\$261.6	\$251.5	\$225.5
Total Impact (\$M)	\$729.6	\$700.0	\$673.0	\$603.6
Employment Supported (FTE)	2,730	2,550	2,350	2,500
Labor Income (\$M)	\$251.8	\$241.6	\$232.3	\$208.3

Source: Baltimore Gas and Electric Company (2020), Econsult Solutions, Inc. (2020), IMPLAN

Figure C.2: Economic Impact from the STRIDE Program in Baltimore County

Impact Type	2032	2035	2037	2042
Direct Output (\$M)	\$537.2	\$515.4	\$495.5	\$444.4
Indirect and Induced Impact (\$M)	\$321.1	\$308.1	\$296.2	\$265.7
Total Impact (\$M)	\$858.3	\$823.6	\$791.7	\$710.1
Employment Supported (FTE)	5,130	4,910	4,515	5,105
Labor Income (\$M)	\$348.9	\$334.8	\$321.8	\$288.6

Source: Baltimore Gas and Electric Company (2020), Econsult Solutions, Inc. (2020), IMPLAN

Figure C.3: Economic Impact from the STRIDE Program in Baltimore City

Impact Type	2032	2035	2037	2042
Direct Output (\$M)	\$468.0	\$449.1	\$431.7	\$387.2
Indirect and Induced Impact (\$M)	\$173.4	\$166.3	\$159.9	\$143.4
Total Impact (\$M)	\$641.4	\$615.4	\$591.7	\$530.6
Employment Supported (FTE)	2,075	1,975	1,810	2,040
Labor Income (\$M)	\$234.5	\$225.0	\$216.3	\$194.0

Source: Baltimore Gas and Electric Company (2020), Econsult Solutions, Inc. (2020), IMPLAN

Figure C.4: Economic Impact from the STRIDE Program in Howard County

Impact Type	2032	2035	2037	2042
Direct Output (\$M)	\$170.7	\$163.8	\$157.4	\$141.2
Indirect and Induced Impact (\$M)	\$101.7	\$97.5	\$93.8	\$84.1
Total Impact (\$M)	\$272.3	\$261.3	\$251.2	\$225.3
Employment Supported (FTE)	930	870	800	860
Labor Income (\$M)	\$101.4	\$97.3	\$93.5	\$83.9

Source: Baltimore Gas and Electric Company (2020), Econsult Solutions, Inc. (2020), IMPLAN

Figure C.5: Income Tax Impact by County from the STRIDE Program by Scenario

County	2032	2035	2037	2042
Anne Arundel County	\$2.79	\$2.68	\$2.58	\$2.68
Baltimore County	\$4.31	\$4.67	\$3.98	\$3.57
Baltimore City	\$2.73	\$2.62	\$2.52	\$2.26
Calvert County	\$0.01	\$0.01	\$0.01	\$0.01
Carroll County	\$0.37	\$0.35	\$0.34	\$0.30
Cecil County	\$0.03	\$0.03	\$0.03	\$0.03
Frederick County	\$0.03	\$0.03	\$0.03	\$0.03
Harford County	\$0.78	\$0.75	\$0.72	\$0.64
Howard County	\$1.63	\$1.56	\$1.50	\$1.80
Montgomery County	\$0.04	\$0.03	\$0.03	\$0.03
	\$12.73	\$12.74	\$11.74	\$11.35

Source: Baltimore Gas and Electric Company (2020), Econsult Solutions, Inc. (2020), IMPLAN, Various City and County CAFRs (2019)

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An Exelon Company

BGE's STRIDE program

The proven pipeline to a safer, more efficient natural gas system and a more prosperous Maryland economy.

replaced more than **250 MILES** of gas mains and more than **60,000** service pipes

greenhouse gas emissions will be reduced by **210,000 METRIC TONS** per year compared to 2013

supporting more than **14,700 JOBS** and more than **\$900 MILLION** in labor income

What is STRIDE?

STRIDE stands for Strategic Infrastructure Development and Enhancement Plan. It provides incentives for accelerating the modernization of natural gas infrastructure. Replacing the system is vital to avoid critical failures, leaks and customer reliability impacts. The program was signed into law with overwhelming bipartisan support in 2013.

Why is STRIDE so important, and so urgent?

BGE is on pace to replace aging gas infrastructure through STRIDE by 2042. Without STRIDE, this work is estimated to take 80-140 years. By doing more work sooner and recovering investments as the work is performed, STRIDE works efficiently and transparently to get the job done for customers.

How is STRIDE working for BGE customers and Marylanders?

SAFETY AND RELIABILITY

Since 2014, BGE has replaced more than 250 miles of gas mains and more than 60,000 service pipes. Aging cast-iron, bare steel and copper infrastructure has a higher tendency to leak or cause other safety or reliability issues.

ENVIRONMENT

Since 2014, pipe replacements reduced the emission of about 3.9 million pounds of methane gas—a major greenhouse gas. When BGE's STRIDE plan is complete, greenhouse gas (GHG)

emissions will have been reduced by 210,000 metric tons per year compared to 2013. That's the equivalent of taking 44,000 cars off the road.

JOBS AND ECONOMIC DEVELOPMENT

- BGE has invested more than \$848 million in STRIDE projects since 2014, and will invest more than \$160 million in 2021 to modernize the gas system.
- BGE is partnering closely with minority- and women-owned vendors to achieve a 25 percent diverse spend target.
- BGE's planned STRIDE investments over the next 21 years are estimated to generate \$2.5 billion of total impact on Maryland's economy—while supporting more than 14,700 jobs and more than \$900 million in labor income.*

Would STRIDE be even more beneficial on a faster track?

ABSOLUTELY. HERE'S WHY

- If BGE completed STRIDE modernization plans seven years earlier (by 2035), those investments would create about \$400 million in additional economic impact and \$200 million in additional labor income.*
- BGE's investments would generate more jobs sooner, supporting the economic recovery in Maryland.*
- BGE's accelerated investments would reduce greenhouse gas emissions sooner.*

Visit MarylandStride.com for more information.

*Econsult study

HB 0890 STRIDE_SENATE_Final.pdf

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Position: FAV



An Exelon Company

Position Statement

SUPPORT

Senate Finance

03/26/2021

House Bill 890 – Natural Gas – Strategic Infrastructure Development and Enhancement – Surcharge and Plans

Baltimore Gas and Electric Company (BGE) supports *House Bill 890 – Natural Gas – Strategic Infrastructure Development and Enhancement – Surcharge and Plans*, which facilitates accelerated replacement of aging natural gas infrastructure by modifying the Strategic Infrastructure Development and Enhancement (STRIDE) mechanism to be compatible with a multi-year rate plan, as well as a traditional base rate case.

Since the Commission approved BGE's initial 5-year, \$400 million STRIDE plan in 2014, BGE has invested more than \$850 million in gas system infrastructure replacement and has retired over 300 miles of obsolete cast iron or bare steel gas pipeline. As part of these projects, BGE has retired over 250 miles of low-pressure pipeline. In addition, we have replaced over 50,000 metallic service lines. All of this work to date has required the support of 600 full-time equivalent jobs, including both BGE employees and contractors. These are not temporary jobs, but rather career jobs to support BGE's currently approved STRIDE plan.

While STRIDE is working for the Maryland natural gas customer, it can work even better. This legislation would position BGE to seek to further accelerate the replacement of obsolete, leak-prone pipes and the reduction of low-pressure infrastructure.

In 2021, BGE became the first Maryland utility to pilot a multi-year rate plan. While this innovative ratemaking model promises significant benefits to Maryland's utility customers, the STRIDE mechanism needs updating to reflect the fact that multi-year plans are replacing traditional rate cases for several Maryland utilities. HB 890 would alter the STRIDE mechanism, so that it operates with a multi-year rate plan consistent with how it operates under a traditional base rate case. This modification will facilitate BGE's accelerated gas replacement work through the company's multi-year rate plan period and beyond.

Completing a replacement and modernization program sooner will accelerate the reduction in the number of leaks on BGE's gas system, which will reduce BGE's pipeline operating and maintenance costs and result in direct savings to customers. In addition to direct customer savings through cost avoidance, an accelerated investment program delivers greenhouse gas emission reductions sooner and will result in greater demand for a skilled labor force that is currently in short supply.

As seen from the work to date, Maryland can expect increased job and economic benefits from the passage of House Bill 890. STRIDE has created a demand for these skilled, full-time, career jobs. Based on an impact study BGE commissioned by Econsult Solutions, Inc (ESI), under the current plan the total economic impact in the state of Maryland is projected to be approximately \$2.5 billion, supporting more than 14,700 jobs through 2042. If we accelerated the work by 10 years, the total economic impact is projected to be over \$3 billion, supporting more than 15,300 jobs through 2032. Modernizing the STRIDE mechanism to fit with evolving ratemaking policies will position Maryland to realize these additional benefits in a shorter period of time.

For these reasons, BGE respectfully requests a favorable report from the Committee.

HB 890 Strategic Infrastructure Development and E

Uploaded by: Bresnahan, Tammy

Position: UNF



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**House Bill 890 Natural Gas – Strategic Infrastructure Development and
Enhancement – Surcharge and Plans
Senate Finance Committee
UNFAVORABLE
March 30th, 2021**

Good Afternoon Chairwoman Kelley and Members of the Senate Finance Committee. I am Tammy Bresnahan, Director Advocacy AARP MD. AARP MD and its over 860,000 members opposes HB 890 Natural Gas Strategic Infrastructure Development and Enhancement Surcharge and Plans.

HB 890 also known as STRIDE requires eligible infrastructure project costs collected under a gas infrastructure replacement surcharge to be included in base rates as part of rate adjustments made during a multi-year rate plan, with the surcharge continuing for eligible future projects that are not included in base rates.

Home energy costs make up a sizable portion of household budgets. In recent years, volatile prices for natural gas, electricity, and fuel oil have significantly increased many consumers' costs. One group particularly vulnerable to rapid increases in energy prices are older consumers. Although they consume approximately as much energy as younger people do, older Americans devote a higher percentage of their total spending to residential energy costs. They spend a greater proportion of their income to heat their homes (this is true even after statistics are adjusted for weather and home size). Low-income older households spend an average of 10 percent of their income on residential energy. However, in about one out of four cases, low-income older households devote 15 percent or more of their income to home energy bills. Too often low-income older people must choose between cutting back on energy expenditures and reducing spending for other necessities, and may thus end up risking their health or comfort.

For many older people in low - and moderate - income households, high and unpredictable home energy prices jeopardize stable home heating and cooling. This increases the possibility of their homes being too hot in summer and too cold in winter. Such exposure can lead to a host of adverse health outcomes, ranging from the aggravation of chronic health conditions to food spoilage to premature death. According to the most recent statistics, exposure to heat and cold kills thousands of people prematurely in the US each year; it also causes many adverse health outcomes that do not prove fatal.

Real Possibilities

Historically in Maryland before allowing utilities to recover their costs, regulators traditionally required a rate case review. Once set, the rates remain in place until a new rate case is filed and approved. A rate case ensures scrutiny of a utility's costs. Regulators review costs, seeking decreases that might at least partially offset the need for a rate increase, thus reducing the overall price to consumers. This process also provides strong motivation for a utility to minimize its costs between rate cases.

Trackers adjust rates between rate cases based on actual increases or decreases in certain utility costs. The danger they pose for consumers is that such adjustments tend to limit regulators' ability to scrutinize and evaluate costs. This design also may lessen the utility's incentive to control its costs between rate cases.

AARP believes that:

- Regulators should ensure that utility rate changes occur within the context of a full rate case review and depart from this approach only when a utility can demonstrate that extraordinary circumstances jeopardize its financial condition and require emergency or interim action.
- Regulators should require full rate case reviews at intervals short enough to ensure that the utility remains accountable to its customers.

If policymakers allow a utility to recover a portion of its expenditures via a surcharge or tracker on a ratepayer's utility bill, AARP believes the following minimum consumer protections should be in place:

- A surcharge should recover only clearly defined costs, should expire in a reasonable period of time, and should undergo an audit or review (including public comment opportunities) to determine whether it achieved the intended result.
- The number of surcharges and trackers available to any one utility should be limited.
- A utility's authorized rate of return should be downwardly adjusted to reflect the reduced business risk that results from the guaranteed revenue stream that a surcharge or tracker provides.
- A surcharge or tracker should be designed so that cost overruns are absorbed by the utility and under spending is returned to ratepayers.
- The amount of a surcharge should be reduced to reflect utility cost savings when revenue from the surcharge funds' investments, such as upgrades in plant equipment, improves efficiency.

AARP also believes that as amended, HB 890 makes anti-consumer mechanisms even worse including:

- Multi-year rate plans are a problem since they lock in rate increases, limiting the ability of the Public Service Commission to alter rates as circumstances change

(i.e., failing to take into account lowered expenses to benefit consumers, or changes in tax laws, etc.).

- STRIDE is a separate infrastructure surcharge that harms consumers by allowing rates to increase on a piecemeal basis, even in situations where the utility's overall revenues are sufficient to cover all expenses, and can even allow over-earning at ratepayer expense.
- HB 890 would mandate that un-audited costs in the STRIDE surcharge be automatically placed in permanent multi-year rate.

This legislation would 1) reduce regulatory transparency, 2) limit due process by preventing consumer advocates from challenging questionable investments, and 3) it would reduce the ability of the Public Service Commission to protect consumers. This legislation would potentially allow rates to increase without proper scrutiny, potentially allowing excess earnings and unjustifiably high energy rates.

AARP is working hard to ensure that Marylanders can age in place without going broke. We respectfully request an unfavorable report on HB 890. If you have any additional questions please contact me at tbresnahan@aarp.org or by calling 410-302-8451. Thank you.

HB890 OPC Oppose - SF - Final -- 03302021.pdf

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Position: UNF

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BILL NO.: House Bill 890
Natural Gas
Strategic Infrastructure Development and Enhancement
Surcharge and Plans

COMMITTEE: Senate Finance

HEARING DATE: March 30, 2021

SPONSOR: Delegate Davis

POSITION: Oppose

House Bill (HB) 890, as amended, would result in a significant change to PUA § 4-210 (the STRIDE law). HB 890 would move “eligible infrastructure project costs collected previously under a surcharge” into base rates at the time of each annual rate change within a multi-year rate plan (“MRP”). This differs from the process described in the current version of the STRIDE law, which provides only that a utility may move “eligible infrastructure project costs” into base rates in a “base rate case.”

The Office of People’s Counsel (OPC) opposes this change to the STRIDE law. It would remove the ability of stakeholders to review STRIDE investments for prudence before they are moved into base rates. It would also weaken the consumer protection that the surcharge cap provides. Finally, HB 890 would reduce the transparency of STRIDE charges.

A. A Brief Overview of the STRIDE Law

Enacted in 2013, the STRIDE law permits Maryland’s gas distribution utilities to submit 5-year infrastructure replacement plans to the Maryland Public Service Commission (Commission). The STRIDE law is intended to incent the replacement of aging gas distribution infrastructure by providing utilities with advance recovery of the

costs of the replacement projects. Specifically, the STRIDE law allows utilities to include a monthly surcharge on customer bills to recover the estimated costs of such projects contemporaneously with, or even before, the execution of the projects. The amount of the monthly surcharge is determined shortly before the beginning of each calendar year and, with some limited exceptions, remains the same for each month in the following calendar year. The amount of the monthly surcharge for a given calendar year is based on the work planned in that year and its estimated cost.

An important feature of the STRIDE law is the transparency it provides to customers with respect to how much they are paying for the program. This transparency is promoted through the surcharge. Rather than simply tracking the expenditures and rolling them into total customer bills, the surcharge informs consumers of the utility's specific expenditures for gas distribution infrastructure replacements.

The STRIDE law provides that the surcharge may not exceed \$2.00/month on residential customer bills. While the STRIDE law does not provide a stated dollar amount for the cap on other customer classes' surcharges (for example, commercial and industrial customers), the law provides "[t]o create a surcharge cap for all customer classes, costs shall be allocated to nonresidential and residential customers consistent with the proportions of total distribution revenues that those classes bear in accordance with the most recent base rate proceeding for the gas company." PUA § 4-210(d)(4)(ii).

When a utility reaches the surcharge cap, that does not mean that the utility will be unable to recover the costs of its STRIDE investments. Rather, it means only that for those costs above the cap, the utility must wait until its next base rate case to begin recovering them.

The STRIDE law provides that within five years of the implementation of a STRIDE plan, a utility must file a base rate case. In a base rate case, all a utility's costs and expenses are adjusted to reflect recent historic cost data, with certain adjustments. When a utility with a STRIDE plan files a base rate case, all the STRIDE investments included in the STRIDE surcharge are reviewed for prudence. If the Commission determines that the investments were prudent, the costs are moved out of the surcharge and into the utility's rate base. This movement of costs from the surcharge to rate base has the effect of reducing the STRIDE surcharge, which makes it less likely that a STRIDE utility will hit the surcharge caps.

At present, three Maryland gas distribution utilities have gas infrastructure replacement plans under STRIDE – Baltimore Gas and Electric Company (BGE), Washington Gas Light Company, and Columbia Gas of Maryland, Inc. A fourth – Elkton Gas Company – presently has a STRIDE application pending before the Commission.

B. HB 890 Would Remove Stakeholders’ Ability to Review STRIDE Investments for Prudency Before They Move into Base Rates.

When the Commission approves a multi-year rate plan, it approves up to three years of rates, with the rate levels increasing after each year to reflect projected increased utility spending. HB 890 would automatically move all a utility’s STRIDE spending from the STRIDE surcharge to base rates whenever rates change within an MRP. This differs from the process described in the current version of the STRIDE law, which provides only that a utility may move “eligible infrastructure project costs” into base rates in a “base rate case.”

In this regard, HB 890 would significantly change the STRIDE regulatory review process. Under the current procedure, the base rate case presents the one opportunity for stakeholders and the Commission to review STRIDE investments for prudency before they move to base rates. HB 890 would automatically move STRIDE investments into base rates each year within an MRP without any quantitative or qualitative review of the spending. HB 890 thus would deprive stakeholders of their only opportunity to review STRIDE costs before they are included in a utility’s rate base.

C. HB 890 Would Weaken the Consumer Protection that the Surcharge Cap Provides.

The automatic movement of costs from the STRIDE surcharge to rate base within each year of an MRP would annually zero out the STRIDE surcharge. This makes it less likely that a utility will hit the surcharge caps. However, that does not mean that the cap will be protecting customers as intended under the initial STRIDE legislation.

While the STRIDE spending that remains in the surcharge will be subject to the cap, the STRIDE costs that HB 890 would automatically move to base rates – unreconciled and unreviewed spending – will not be subject to the cap because they will no longer be in the surcharge. The effect is that a utility will be able to collect STRIDE charges in excess of the cap from customers, through a combination of the surcharge and base rates.

D. HB 890 Would Reduce the Transparency of STRIDE Charges.

The Commission has cited “added transparency” as one of the drivers behind its adoption of MRPs. This aspect of HB 890 is inconsistent with that goal.

The Commission explained its transparency objective in BGE’s recent MRP case. BGE sought to include all STRIDE costs up to the cap in the surcharge, but then recover any amounts over the cap through base rates. BGE projected that this would be necessary in 2022 and 2023. The Commission rejected this proposal on the basis that it lacked transparency:

The Commission further finds that BGE’s proposal to place some or all of its STRIDE costs in the MRP lacks transparency. The General Assembly required that the surcharge be visible to customers. Placing STRIDE projects directly into the base rate circumvents that transparency by requiring the Commission to approve advanced recovery of STRIDE projects with no visibility to customers, instead mixing STRIDE costs inextricably with all the other elements of BGE’s rates.¹

Like BGE’s proposal in its MRP case, HB 890 is contrary to the goal of transparency. Throughout the course of an MRP, the customers of gas companies with STRIDE programs would have a line item on their bills showing the amount of the STRIDE surcharge. If “eligible infrastructure project costs collected previously under a surcharge” were annually moved to base rates by operation of law, that would mask the total amount of STRIDE costs in rates and prevent customers from knowing how much they were paying for STRIDE costs. In the words of the Commission, STRIDE costs would be mixed “inextricably with all the other elements of BGE’s rates.” HB 890 would remove the “visibility” that the STRIDE surcharge provides.

By amending the STRIDE law to move “eligible infrastructure project costs collected previously under a surcharge” into base rates at the time of each annual rate change within a multi-year rate plan, HB 890 is inconsistent with the Commission’s transparency goals and leaves customers less informed.

E. Conclusion

House Bill 890 is not in the interests of ratepayers. It will weaken consumer protections and reduce transparency. The Office of People’s Counsel opposes House Bill 890.

¹ Maryland Public Service Commission Order 89678 (Case No. 9645) *Application of Baltimore Gas and Electric Company for an Electric and Gas Multi-Year Plan* (December 16, 2020) p. 29, ¶ 60.

AOBA-HB 890- UNF.pdf

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Position: UNF



Bill No: HB 890— Natural Gas – Strategic Infrastructure Development and Enhancement – Surcharge and Plans

Committee: Finance

Date: March 30, 2021

Position: Oppose

The Apartment and Office Building Association of Metropolitan Washington (“AOBA”) submits this testimony on HB 890. AOBA’s members own or manage approximately 23 million square feet of commercial office space and over 133,000 apartment units in the State of Maryland and receive service from Washington Gas under its Group Metered Apartment, Commercial and Industrial and Interruptible rate schedules.

HB 890 would amend the current law on the accelerated replacement of aging natural gas infrastructure, how utility companies, including Washington Gas (“the Company”) recover their costs, and the regulatory oversight of the STRIDE program by the Public Service Commission (“PSC” or “the Commission”).

Under current law, the STRIDE Program provides several protections for ratepayers. First, the utility surcharge on customer bills is capped at \$2.00 per month as a separate line item on residential customer bills. The residential surcharge cap also limits the increases on all commercial and master-metered apartment customers, since the monthly charges are based on the proportions of total distribution revenues for those classes of customers as established in the last base rate case. In other words, the residential STRIDE surcharge cap impacts all commercial and master-metered apartment customers of Washington Gas by limiting and controlling the costs that Washington Gas recovers under the STRIDE program from these ratepayer classes by linking their cap on the STRIDE monthly surcharge to the \$2.00 monthly residential cap. The purpose of the cap is to ensure that ratepayers are not overwhelmed by the costs of utility services provided by Washington Gas, while the Company replaces aging pipeline and timely recovers costs without the need to file multiple rate cases. Secondly, STRIDE surcharge costs can only be placed into base rates after a reconciliation of estimated costs to actual costs and a prudence review by the Commission in a base rate case, important oversight protections for ratepayers.

HB 890 would require that during a multiyear rate plan (“MRP”) approved by the Commission, each time during the multiyear rate plan that a gas company’s rates are adjusted, eligible STRIDE project costs collected under a STRIDE surcharge shall be included in base rates and the surcharge reset. The surcharge then continues for the following year’s eligible infrastructure estimated projects costs. **The effect of HB 890 is to eviscerate the previously established cap for residential users, as well as all classes of customers, and eliminate previously established consumer protections.**

The purpose of an MRP is to permit a utility company to adjust rates within Commission established pre-approved limits without the need for a rate case over a period of three years, while ratepayers receive the benefit of rate certainty and transparency. BGE has a multiyear rate plan (Case No. 9645) in effect and Pepco’s proposed MRP is currently under consideration before the PSC in Case No. 9655. AOBA expects that Washington Gas may file a multiyear rate plan in the relatively near future.

Under HB 890, a gas company receives the benefits of an MRP while also being permitted to annually increase STRIDE rates without a Commission reconciliation of estimated costs to actual costs or a prudence review, both of which are now required and are reviewed annually. In short, the current STRIDE consumer protection provisions administered by the Commission, and the rate certainty and transparency under an MRP, would be eliminated. As a result, all ratepayers will experience significant STRIDE rate increases without the benefit of Commission oversight.

AOBA opposes HB 890 because the proposed legislation adversely impacts all Maryland natural gas ratepayers by:

- (1) increasing the cost of natural gas utility company replacement of aging infrastructure;
- (2) eliminating ratepayer transparency in knowing actual utility costs being recovered and placing estimated STRIDE costs in base rates before such costs are reconciled to actual costs by the Commission;
- (3) authorizing the gas utility company to transfer the cost recovery from the surcharge to inclusion in utility base rates during the period of an approved multiyear rate plan which eliminates the rate certainty and transparency ratepayers expect from such MRP plans;
- (4) virtually eliminating the STRIDE laws monthly cap on surcharges for all gas customers by authorizing the gas utility company to transfer cost recovery from the surcharge to inclusion in base rates automatically during the period of an approved multiyear rate plan before a reconciliation of the estimated costs by the PSC and before a PSC prudence review. Further, **when costs are removed from the surcharge and placed into rate base, the STRIDE surcharge is automatically reduced which makes it unlikely that the Company will hit the surcharge cap at anytime during an MRP;** and
- (5) exacerbating the adverse impact of the COVID-19 pandemic on residential ratepayers and businesses confronted by ongoing catastrophic health and economic devastation as mitigation and recovery efforts from the virus continue.

If HB 890 becomes law, natural gas rates for all customers will rise when rates are adjusted during a multiyear rate plan each time rates change, i.e., annually. Rates for all customers will increase when cost recovery for *estimated* STRIDE project costs are automatically transferred from the STRIDE surcharge and included in rate base without the benefit of a base rate case investigation, Commission reconciliation of estimated costs to actual costs or prudence review. And finally, rates will rise when costs are removed from the surcharge automatically each year and put into rate base, and the STRIDE surcharge is reset, it is unlikely that the Company will hit the surcharge cap at anytime during an MRP.

Background

PSC Decision in BGE Case No. 9645, Order No. 89678, issued December 16, 2021

HB 890 would require that when utility base rates are adjusted in a multiyear rate plan (“MRP”), the Public Service Commission (“PSC”) shall require costs recovered through the surcharge for completed projects be collected in base rates during the MRP period each time the Company’s base rates are adjusted during the MRP period and future costs be recovered through the surcharge. As detailed earlier in this testimony, AOBA believes that HB 890 is not in the best interests of natural gas ratepayers in Maryland and submits that the PSC’s December 16, 2020 Order No. 89678 in BGE Case No. 9645 effectively addresses these issues.

There is no evidence that existing STRIDE cost recovery, coupled with the framework adopted by the PSC for investigating an application submitted by a natural gas utility company for approval of a multi-year rate plan, are not sufficient to ensure reasonable and timely STRIDE cost recovery while also balancing the interests of ratepayers in just and reasonable rates.

The PSC has addressed the impact of BGE recovering the costs of complying with COVID-19 mitigation mandates. The PSC authorized BGE to create a regulatory asset to recover the actual incremental costs of compliance with Covid-19 based restrictions. This decision by the PSC ensures that the utility company will timely recover COVID-19 related expenses, net of government assistance, without recovering these costs through adjustments in rate base during the period when a utility company’s approved multi-year rate plan is operational. *Order No. 89678* at 20, ¶43.

As the first approved MRP pilot, the PSC’s BGE decision is to serve as a template for consideration of all-natural gas company utility MRP applications now and into the future. The PSC discussed the purpose of the STRIDE program and stated:

The STRIDE statute was enacted for the purpose of accelerating gas infrastructure improvements in Maryland by establishing a mechanism by which gas companies might promptly recover reasonable and prudent costs of investments in eligible infrastructure replacement projects separate from base rate proceedings. Participation in STRIDE requires a gas company to file a plan for infrastructure replacement that specifies the replacement work to be performed, the cost and

timeline for that replacement, and customer benefits under the plan. *Order No. 89678* at 26, ¶54.

The PSC determined that:

By law, the amount of the surcharge ‘may not exceed \$2 each month on each residential customer account’ or a comparable amount for nonresidential customer accounts. Completed STRIDE projects must be removed from the surcharge and transferred into rate base at least every five years, but may only be transferred into rate base during a base rate case.” *Order No. 98678* at 26-27, ¶56.

The Commission further found that:

...BGE’s proposal to place some or all of its STRIDE costs in the MRP lacks transparency. The General Assembly required that the surcharge be visible to customers. Placing STRIDE projects directly into the base rates circumvents that transparency by requiring the Commission to approve advanced recovery of STRIDE projects with no visibility to customers, instead mixing STRIDE costs inextricably with all the other elements of BGE’s rates. *Order No. 89678* at 29, ¶60.

AOBA Supports the Reasoning of the PSC in Rejecting the Argument that Including STRIDE Costs in Base Rates During a MRP is Necessary

AOBA supports the reasoning of the Commission in rejecting the BGE argument that including STRIDE project costs in base rates under a multi-year rate plan was necessary. The PSC concluded that the voluntary filing by BGE of an application for approval of a multi-year rate plan carried certain benefits and limitations that the utility can’t ignore. According to the PSC,

BGE’s arguments that its STRIDE projects will be worse off than other MRP investments unless it is allowed to account for the projects in its MRP base rates are unavailing. BGE chose to file the MRP and, accordingly, it was aware of the three-year stay out requirement contained in the MRP Pilot Order. The utility cannot take advantage of the benefits of the MRP while simultaneously disavowing its disadvantages. *Order No. 89678* at 30, ¶63.

AOBA submits that the three-year stay out provision of the multi-year rate plan discussed in the PSC *Order No. 89678* is intended to protect ratepayers from rate increases while ensuring accelerated cost recovery and predictable revenues for the utility company without the requirement of annual applications for rate increases. This tradeoff, which the utility company agrees to accept in return for approval of a multi-year rate plan, should not be eliminated. The predictability and certainty of rates, coupled with the transparency of utility costs during the effective period of a multi-year rate plan, are benefits ratepayers were promised and must continue to receive as benefits.

The Commission decision to Include STRIDE Cost Recovery from Completed Projects into Base Rates Prior to an Approved MRP Becoming Effective is Appropriate

In lieu of including STRIDE cost recovery from completed projects into base rates during the period of an approved multiyear rate plan, the PSC approved including STRIDE investments into BGE's rate base prior to an approved multi-year rate plan becoming effective. The PSC concluded that:

The Commission will, however, approve BGE's proposal to place into MRP rates all STRIDE investments through December 31, 2020. This will allow BGE to set the STRIDE surcharge to zero on the first day of its MRP and mitigate the risk that its infrastructure spending will exceed the \$2 cap before its next rate case. At a minimum, BGE will have time to make its case to the General Assembly that the cap should be raised before its MRP ends, should it choose to do so. Order No. 89678 at 30, ¶64.

The PSC's decision preserved the expectation of ratepayers for rate certainty and transparency during the term of an approved multi-year rate plan.

Conclusion

AOBA submits that HB 890 will simply exacerbate the concerns raised and addressed in the PSC's December 16, 2020 Order No. 89678. As the PSC acknowledged, any utility company, including a natural gas utility company, that seeks approval of a multi-year rate plan must accept the benefits and limitations of such plans. For the reasons stated by the PSC in Order No. 89678, and in this testimony, AOBA respectfully opposes the inclusion of STRIDE cost recovery from the surcharge into base rates during the period of time when an approved multi-year rate plan is in effect.

AOBA requests an unfavorable report on HB 890.

For further information contact Ryan Washington, AOBA Government Affairs Manager, Maryland, at 202 296-3390 Ext. 769 or RWashington@aoba-metro.org, or Frann Francis, AOBA Senior Vice President and General Counsel, at 202-296-3390 Ext. 766 or FFrancis@aoba-metro.org.

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Position: INFO

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CHAIRMAN

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PUBLIC SERVICE COMMISSION

March 30, 2021

Chair Delores Kelley
Senate Finance Committee
3 East, Miller Senate Office Building
Annapolis, MD 21401

RE: HB 890 – INFORMATION – Natural Gas – Strategic Infrastructure Development and Enhancement – Surcharge and Plans

Dear Chair Kelley and Committee Members:

I have reviewed House Bill 890 and provide the information below for the Committee's consideration. SB 8/HB 89 ("STRIDE," 2013) allowed gas companies to recover costs for infrastructure replacement projects through a separate surcharge on customer bills, with a cap of \$2.00 per month. Subsequently, three gas companies filed plans with the Maryland Public Service Commission for approval, Baltimore Gas and Electric Company, Washington Gas Light Company, and Columbia Gas of Maryland. Since the passage of this legislation, the Commission has approved two five-year plans for each utility; the second plans are ongoing.¹

In 2020, BGE filed the first Multi-Year Rate Plan as the pilot utility under the Commission's Alternative Forms of Ratemaking proceeding. In this case, the Commission had its first opportunity to consider the interaction of Maryland's laws governing STRIDE and alternative forms of regulation. The MRP Pilot Order contains a mandatory stay-out provision, which provides that any utility that files an MRP will be prohibited from filing another base rate case for the three-year duration of the plan. The Commission contemplated whether the intent of the STRIDE law was for the STRIDE surcharge to be a form of alternative ratemaking since historical test years were still the basis of most rate cases at the time the legislation was passed. Proposals in the case included several various approaches to shifting STRIDE spending during the five-year plan into rate base, including only at the beginning and end of the three-year rate plan, continuously throughout the plan, or only through base rates.

In interpreting the relevant statutes, the Commission authorized the shifting of STRIDE spending through the end of 2020 into rate base but left the STRIDE statute to continue controlling the existing filed spending plan that lasts for a total of five years. In doing this, the Commission respected STRIDE's statutory cap on recovery and the statutory requirement that spending can only be transferred to rate base during a full rate proceeding.² The Commission

¹ On March 2, 2021, Elkton Gas Company filed its first STRIDE application for approval.

² Order 89678, Paragraph 57, p. 27; *Public Utility Article*, § 4-210(g)(1)(ii)(2).

stated, “It is not clear that the General Assembly intended that a utility could put an unlimited amount of gas infrastructure costs on ratepayers through a forecasted, alternative ratemaking mechanism. Ultimately, when the General Assembly crafted such a mechanism—with STRIDE—it imposed a strict surcharge cap.”³ The Commission further found that the proposal to place STRIDE costs in the MRP could impact the transparency that the General Assembly required by making the surcharge visible to customers. HB 890 will provide clarity that costs from a five-year STRIDE plan can be shifted on an annual basis during a multi-year rate case, thereby reducing regulatory lag.

Thank you for the opportunity to provide informational testimony regarding HB 890. Please contact my Director of Legislative Affairs, Lisa Smith, at 410-336-6288 if you have any questions.

Sincerely,



Jason M. Stanek
Chairman

³ *Ibid.*, para. 58.