2014-02-15 SB 548 (Support).pdf
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OFFICE OF THE ATTORNEY GENERAL

February 15, 2024

TO: The Honorable Brian Feldman
Chair, Education, Energy, and the Environment Committee

FROM: Tiffany Johnson Clark
Chief Counsel, Legislative Affairs, Office of the Attorney General

RE: Senate Bill 548 – Natural Gas – Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act) - **Support**

The Office of the Attorney General supports Senate Bill 548, sponsored by Senator Charles Sydnor. Senate Bill 548 will help protect Maryland's gas utility consumers and align gas infrastructure replacement with the State's climate goals.

Senate Bill 548 would modify the Strategic Infrastructure Development and Enhancement ("STRIDE") law to require that Maryland's gas utilities prioritize program spending based on risk to the public and to consider cost-effective alternatives to pipe replacement, including leak detection and repair and targeted abandonment in connection with electrification. The bill would also require gas companies to provide advance notice to customers so that customers who want to electrify have time to do so before costly work is done to replace the gas equipment serving their buildings. These requirements, which are not in the existing law, are modest but important improvements to the STRIDE statute that will benefit Maryland utility customers and help advance State policy.

The General Assembly enacted the STRIDE law in 2013 with the purpose of providing gas utilities financial incentives to accelerate their infrastructure replacement programs. The 2013 STRIDE law presumed that it made sense for the gas utilities to replace their entire legacy gas distribution systems with brand new systems that would be less likely to leak, providing safer service and reducing greenhouse gas emissions. Since that time, the State's major gas utilities have

completed about one-third of their STRIDE work. While the full costs of that work will be recovered over many decades through customer rates, gas customers already have seen substantial increases in the distribution portion of their gas bills in recent years, much of it driven by spending under the STRIDE program.

While maintaining safe gas service and reducing gas leaks remain priorities, it makes sense to update the STRIDE law to ensure that future STRIDE spending accomplishes the state's goals while minimizing its impact on utility customers. With roughly two-thirds of the utilities' gas distribution systems still to be replaced, at a cost of billions of dollars, the evaluation of cost-effective alternatives could result in substantial bill savings for utility customers over the coming years. Further, evaluation of alternatives to replacement could help avoid infrastructure investments that become obsolete long before they are fully paid for. That potential for obsolescence adds additional risks for utility customers.

It also makes sense to modify the STRIDE statute to ensure its consistency with State climate goals. The Maryland Department of Environment's recently released Climate Pollution Reduction Plan commits to "transition[ing] the state from the fossil fuel era of the past to a clean energy future." It recommends requiring gas utilities to "plan their gas system investments and operations for a net-zero emissions future" and calls on the state to accelerate the transition to electric appliances for heating buildings and water and for cooking. Consistent with MDE's report, the Maryland Commission on Climate Change recommended modifications to the STRIDE statute to align gas utility spending with State climate policy.

Senate Bill 548 simply codifies the modest recommendations of the climate commission. It would continue to allow gas utilities to receive accelerated cost recovery for gas replacement work when it is cost effective, while prioritizing public safety. The bill thus advances important state objectives and protects utility customers from unnecessary costs while balancing the purposes of the original STRIDE law.

For the foregoing reasons, the Office of the Attorney General respectfully requests a favorable report on Senate Bill 548.

ABELL REPORT-TROUBLE WITH STRIDE.pdf

Uploaded by: Arjun Makhijani

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ABELL
FOUNDATION

DECEMBER 2023

By Arjun Makhijani, Ph.D.

The Trouble with STRIDE:

Meeting climate goals and addressing natural gas system stranded costs

The Abell Foundation
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Table of Contents

Preface

This report is concerned with two things: (i) the need to drastically reduce natural gas consumption to meet the climate targets set in the 2022 Maryland law called the Climate Solutions Now Act, including the associated problem of stranded costs; and (ii) the impact of continued investments in existing natural gas system on rates especially, but not only, as they concern low- and moderate-income households.

It builds on a comprehensive report, *Energy Affordability in Maryland: Integrating Public Health, Equity, and Climate*, published by the Institute for Energy and Environmental Research and PSE Healthy Energy in February 2023.[1] That report was funded by the Town Creek Foundation and the Abell Foundation. Part of IEER's agreement with the Abell Foundation was to produce a more detailed report focused on the problem of natural gas rates and stranded costs in the residential sector, given the magnitude of the energy cost burdens and inequities that are emerging due to continuing investments in existing natural gas infrastructure authorized by a 2013 law called the Strategic Infrastructure Development and Enhancement Act (STRIDE). While STRIDE is the focus of this report (which draws heavily on the larger February 2023 report), I want to note that the actual problem of stranded costs is much bigger since investments in new natural gas infrastructure continue, despite the imperative dictated by the Climate Solutions Now Act of 2022 for Maryland to achieve net zero greenhouse gas emissions by 2045.

I would like to thank Abell Foundation for funding this effort. I especially want to thank its Senior Program Officer, Beth Harber for supporting this work from its inception, including reviewing Energy Affordability in Maryland, and sharing her insights with me on a variety of issues. Andrew Green, Vice-President of Abell Foundation, also reviewed the report and provided many useful substantive and editorial suggestions. I am also grateful for important insights from David Lapp, Maryland's People's Counsel. As is clear from the contents of this report, I have found the analysis in the reports of the Office of People's Counsel very useful, insightful, and vigilant in the interests of residential ratepayers. I have benefited from reviews of a draft of this report by Paula Carmody, Joseph Cullen, Laurel Peltier, Emily Scarr, and representatives of Baltimore Gas & Electric. They have all helped improve this report. As is always the case, as the author, I alone am fully responsible for any errors and omissions as well as the contents of this report, including its findings and recommendations.

ARJUN MAKHIJANI
President,
Institute for Energy and Environmental Research

Executive Summary

Baltimore Gas and Electric's replacement of its natural gas infrastructure became a public flashpoint this summer as some Baltimore residents raised loud objections to the installation of regulators on the outside of their homes. The debate about safety, historic preservation, and aesthetics led to threats to cut off gas supplies, litigation, and even the arrest of three protesters in Federal Hill before the Public Service Commission stepped in.

But questions about the replacement of gas lines extend far beyond the dispute between BGE and a few neighborhoods. Rather, it and the state's other major regulated gas suppliers are engaged in a decades-long, state-sanctioned gas infrastructure spending spree that directly contradicts Maryland's legislatively-mandated climate goals and threatens to saddle a dwindling number of ratepayers with billions in costs for decades to come, with the impacts likely disproportionately felt by those least able to afford them.

The replacement of natural gas infrastructure in the name of preventing leaks and promoting safety has been a public policy issue for decades, and in the 2000s and early 2010s, Maryland utilities made several attempts through the Public Service Commission and the General Assembly to follow other states in adopting customer surcharges to expedite such efforts. In 2013, they succeeded with the passage of the Strategic Infrastructure Development and Enhancement ("STRIDE") Act. Although climate change had been a concern of the General Assembly for years prior to that law, the legislature's debate over the STRIDE Act did not contemplate the possibility that Maryland's greenhouse gas emission reduction goals would require a substantial transition away from the use of natural gas for heating, cooking and other purposes in residential and commercial buildings. Subsequent climate-related legislation—including a 2021 law requiring the Public Service Commission to take climate change into account in its decisions and the 2022 Climate Solutions Now Act, mandating a 60% reduction in greenhouse gas emissions by 2031 and net-zero emissions by 2045—did not repeal or alter the terms of STRIDE. Thus, despite Maryland's stated need to reduce natural gas use in buildings by 90% by 2050 in order to achieve its climate goal, the state's gas utilities continue to spend billions on new and replacement natural gas infrastructure, with customers on the hook to repay those investments plus a rate of return, potentially over the next six decades. Continuing those investments at a time of declining gas use will cause skyrocketing rates by the mid-2030s, threatening the health, well-being, and security of tens of thousands (or more) of Maryland's low- and moderate-income families.

Main findings

- **Maryland is on a course of huge natural gas stranded costs:** More than $2 billion in STRIDE authorized investments have already set a course for significant stranded costs, assuming achievement of the state's legally mandated climate goals. More than $4 billion in additional spending is proposed well into the 2040s, whether through the STRIDE provisions or rate cases. If allowed, ratepayers will be paying for these investments for another six decades.
- **There is no evidence that STRIDE has improved the safety of Maryland's natural gas system:** There were no deaths due to material and aging related causes and one serious injury in the nine years before STRIDE; the data show the same in the nine years after STRIDE. State as well as national data show that material and aging-related issues cause a small fraction of serious natural gas-related accidents. The number of serious injuries and deaths from natural gas accidents related to other causes has actually gone up in Maryland since STRIDE—no deaths and four serious injuries in the nine years before STRIDE compared to nine deaths and 58 serious injuries in the nine years since.
- **A 2023 proposal by the state's largest gas utility, BGE, to condition heat pump rebates on customers continuing to maintain natural gas heating as backup is unsound technically and economically:** BGE's proposal would keep customers tied to the natural gas system and saddle residential consumers with high costs. It is based on technically deficient analysis and an approach that was rejected for residential customers by the Building Energy Transition report of the Maryland Commission on Climate Change in favor of essentially complete electrification of that sector.
- **Low-income households, especially low-income renters, would bear the brunt of the skyrocketing rates** because they are the most likely to be stuck with natural gas—and the ill-health and indoor air pollution that often go with it—compounding the inequities they already suffer.
- **Allowing continued investments in the natural gas system will result in a completely unsustainable economic and social situation for all Marylanders**, including non-low-income ones, while natural gas utilities continue to profit handsomely—unless countervailing action is taken.

Recommendations

1. The Public Service Commission should agree to the request of the Office of People's Counsel to initiate a comprehensive proceeding on natural gas so that:
   - The state's climate goals can be achieved equitably and as economically as possible so far as natural gas is concerned.
   - Maryland's expenses (not necessarily investments) made on the grounds of safety are actually reducing the risk of serious accidents.
   - The state's stranded costs are minimized.
2. The STRIDE program as it stands should be ended; so should attempts to continue it by other means—as for instance in the ongoing BGE multi-year rate case.
3. The Public Service Commission should order utilities to identify specific areas where there are material- and aging-related risks of serious accidents and ensure accountability that repairs and investments made actually reduce the rates and severity of such accidents—giving priority to the documented causes and risks.
4. Safety risks in the infrastructure should be specifically identified before investments that would be put in the rate case are authorized. The identified areas should be priorities for complete electrification.
5. A commitment to a fully electric residential sector by 2045 with complementary investments in efficiency, greatly expanded demand response capability, and community solar should be adopted.
6. All low-income homes should be fully electrified as early as possible—at the latest by the mid-2030s.
7. New buildings in the residential and commercial sector should be mandated to be all-electric—by 2025 for the residential sector.
8. It is essential to ensure that efficiency and electrification retrofits are of high quality. This will require contractor and workforce development to expand the state's capacity to properly install and maintain cold climate and geothermal heat pumps.
9. Early integration of demand response capabilities, and the capacity of customers to benefit financially from participation, would spur the energy transition and should be a priority.

The 2013 STRIDE Law on Natural Gas Investments

What is STRIDE?

Natural gas is a household fuel in about half the homes in Maryland; it is the main space heating fuel in about a million of them. The vast majority of them are supplied by three regulated, investor-owned utilities: Baltimore Gas and Electric, Washington Gas, and Columbia Gas; BGE is the largest, supplying almost 60% of gas customers in the state. The fuel itself is procured on the interstate wholesale market by the state's utilities, which then distribute in areas where they own the pipeline infrastructure. In return for the grant of a monopoly in their respective areas and the opportunity to earn a guaranteed rate of return, utilities are subject to regulatory oversight by the Maryland Public Services Commission (hereafter "the Commission").

Starting in the 2000s, Maryland's gas utilities made several attempts to gain permission to place a surcharge on customers' bills to help accelerate the replacement of natural gas pipes, particularly those made of materials now considered obsolete, such as cast iron. The Commission denied these requests, and the utilities turned to the General Assembly, which initially also rejected the idea. However, amid increasing urging from the National Transportation Safety Board (NTSB) for utilities to replace aging gas transmission and distribution infrastructure after high profile gas line explosions in 2010 in San Bruno, California (eight killed) and in 2011 in Allentown, Pennsylvania (five killed), the utilities' efforts succeeded. Then-Transportation Secretary Ray LaHood visited the San Bruno site in 2011; he promised to improve safety and "fix America's pipeline system," including advocating for new federal legislation.[2] That year, Mr. LaHood also urged "all parties to step up efforts to identify high-risk pipelines and ensure that they are repaired or replaced."[3] Investments in natural gas pipeline distribution infrastructure nationally accelerated in the years that followed, increasing from an average of $5.2 billion a year during 2002-2012 to $13.7 billion a year from 2013-2020; a doubling of the annual rate when adjusted for inflation.[4]

Specifically, the Maryland legislature enacted the 2013 Strategic Infrastructure Development and Enhancement Act, which goes by its acronym STRIDE.[5] An NTSB official testified in favor of the bill's passage in House and Senate committee hearings. In the Senate Finance Committee, she acknowledged that both rates and safety were at issue but said, "I am not here about rates; I am here about safety" and went on to urge the replacement of cast iron pipes.[6]

STRIDE permitted replacement of existing natural gas distribution pipelines and the recovery of the investments plus a rate of return without the utilities having to go through a normal rate case before the Commission. The initial recovery from ratepayers was to be via a surcharge capped at $2 per month for residential customers, and a proportionally higher surcharge for commercial customers, until the (adjusted) amount was folded into the rate base. The Commission did not oppose the law, but it testified that it already had the authority to allow investments in question to be made and recovered via rates. Indeed, the Commission had considered just such a case in 2011 and allowed the expenditure made to be recovered via rates but denied Washington Gas' request to recover future such investments via a surcharge prior to presenting them in a rate case.[7]

The Office of the People's Counsel, AARP and others objected to STRIDE on the grounds that it would upset Maryland's traditional rate-setting system, and lawmakers engaged in extended debate about it on the floor of both the House and the Senate, but no one raised the possibility that it could lead to stranded costs amid an eventual shift away from the use of natural gas for heating and cooking.

STRIDE has several features that are important in the context of safety, accountability, and climate:

- It incentivizes pipeline replacements that can be recovered with a profit via rates as distinct from smaller repairs whose costs are passed on to ratepayers and operating maintenance expenses without any return on investment.
- The law lists reducing pipeline leaks of greenhouse gases as a permissible goal for infrastructure replacement under STRIDE. However, no consideration of the eventual need to greatly reduce natural gas consumption is reflected in the law—despite the fact that climate change had been a concern of the state's legislature for many years prior to 2013.
- The commission could deny utilities' proposals on grounds that they were not "reasonable and prudent." Upon such a finding, the utilities would have to refund any collected revenues to ratepayers.

Table 1 shows the six tranches of STRIDE and the actual (for STRIDE I and II) and estimated future capital expenditures, based on an analysis commissioned by the Office of the People's Counsel. The amounts shown do not include the rate of return that the utilities would earn on the unamortized portion for much of the rest of the century. (Figures are in millions.) Anticipated future spending tranches are italicized.

Table 1: STRIDE investments—actual and projected (future tranches italicized).

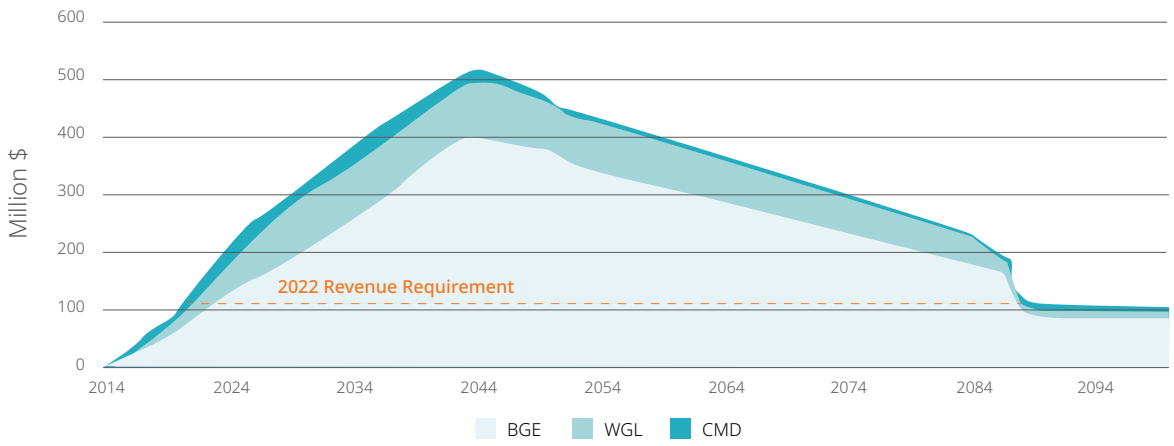
	BGE	WGL	Columbia
Actual STRIDE I, 2014-2018	$522.73	$218.50	$66.19
Actual/authorized, STRIDE II, 2019-2023	$827.28	$363.07	$87.22
Future: STRIDE III, 2024-2028	$693.39	$439.44	$57.38
Future: STRIDE IV, 2029-2033	$803.83	$194.82	$ -
Future: STRIDE V, 2034-2038	$931.86	$74.00	$ -
Future: STRIDE VI, 2039-2043	$1,034.00	$ -	$ -
Total, per utility	**$4,813.58**	**$1,302.19**	**$210.79**
Grand total all three utilities STRIDE I and II			**$2,084.99**
Grand total, all three utilities, all STRIDE tranches			**$6,326.56**

Source: Office of People's Counsel 2022.[8]

Even if no further investments are made under STRIDE, cost recovery and profits will continue into the 2060s. If the other four tranches are authorized, Maryland gas ratepayers will be paying for STRIDE expenditures and the associated profits until the 2080s.

The Office of People's Counsel (OPC) has estimated how STRIDE would impact revenue requirements in the coming decades if the remaining four tranches are also approved. Figure 1 is reproduced from the 2022 OPC report.

Figure 1: Revenue requirements if all six STRIDE tranches are approved by the Maryland Public Service Commission.



Source: OPC 2022

Those revenue requirements will translate directly to higher gas rates for consumers, with energy cost burdens eventually reaching extreme levels for low-income households. Table 2 shows energy bills in 2021 and 2035 assuming the same usage (since low-income households may not be able to make significant investments to reduce usage) for a family of three at 50% and 100% of the 2021 poverty level using an estimated rate for 2035 for BGE (See page 18).

Table 2: Estimated energy costs in 2021 and 2035 for Maryland low-income households.

	Annual energy bill		Energy cost burden 50% of 2021 poverty level		Energy cost burden at 100% of 2021 poverty level	
Year	2021	2035	2021	2035	2021	2035
Natural gas (Notes 1 and 2)	$950	$2,430	8.7%	22.1%	4.3%	11.1%
Electricity (Note 2)	$890	$890	8.1%	8.1%	4.1%	4.1%
Total energy cost burden	$1,840	$3,320	16.8%	30.2%	8.4%	15.1%

Notes:

1. Using the estimated average for the year 2035 for BGE natural gas customers (see Figure 5).

2. Natural gas use taken as the average per household using that fuel in 2021 in all cases. Average natural gas use in a low-income households (at roughly 100% of the poverty level) is estimated to be slightly higher than the overall average. Electricity use for natural gas heated low-income households estimated at 6,800 kWh/year (rounded), about one-fourth lower than the average (adjusted downward using Makhijani, Mills, and Makhijani 2015, Table III-19). The average household size in Maryland is about 7% smaller than the three-person household assumed in this table. Electricity rates are assumed to be stable in constant 2021 dollars. Rates in constant dollars declined from 2012 to 2022 (including the sudden increase in 2022) but declined slightly over the period since the year 2000.[10]

By 2035, natural gas cost burdens alone would increase to extreme levels at 50% of the 2021 poverty level to 22.1%—about two-and-half times the 2021 burden. The total energy burden, including electricity, would increase to more than 30%. At 100% of the poverty level, many households would go from being energy cost burdened to highly cost burdened (defined as burdens greater than 10% of income).

At the high end of natural gas rates in 2050, as estimated by the Office of People's Counsel, the natural gas bill alone would be 94% of the entire income of a family of three living at 50% of the poverty level;[i] the total energy cost would be about 108% of income. The situation will become intolerable for tens of thousands of Maryland families well before that time; it will also place unsustainable pressures on the rest of society in terms of added emergency room health care, housing support, energy bill payment assistance, and other expenditures.

STRIDE has not measurably improved safety

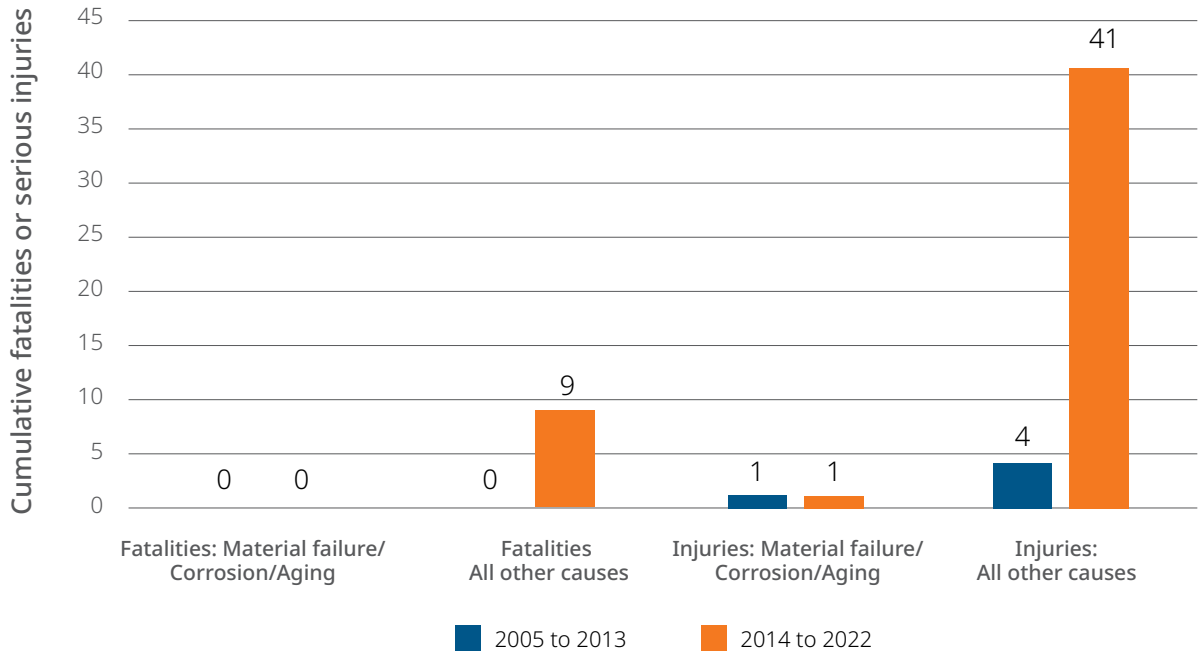
The federal government continues to urge states to replace aging gas infrastructure for safety reasons, and utility officials testified at the time of STRIDE's enactment that Maryland had a larger share of cast iron pipes as part of its system than most other states. Since safety is the ostensible purpose for STRIDE investments, one fundamental question to ask, especially given the scale of the expenditures, is whether there has been a measurable decline in serious accidents and their consequences as a result of the law. A "serious accident" is defined as one that involves a death or serious injury. We use the number of fatalities and serious injuries to assess the impact.

Data from the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) of the U.S. Department of Transportation indicate that about two thirds of serious accidents between 2005 and 2021 (inclusive) nationally were due to "other outside force damage" (26.6%), "excavation damage" (25%), and "incorrect operation" (14.8%). Approximately 18% were due to "natural force" damage or miscellaneous causes listed as "other causes." In the most frequent category—"other outside force damage"—69% of the accidents were due to vehicular damage to the infrastructure. Only about one-seventh of the accidents had a material-related cause such as defective welds or corrosion—not necessarily related to aging.

Maryland data from 2005 to 2022 provide insights into whether large STRIDE investments already authorized—$2.1 billion, or about $1,750 per gas customer—have made a difference to safety. This period is appropriate since it includes nine years after STRIDE's enactment (2014-2022, inclusive) and nine years before STRIDE (2005-2013, inclusive). Both periods are long enough to allow a comparison.

[i] Both poverty level values and rates are in constant dollars and so have not been escalated for inflation.

Figure 2: Fatalities and injuries due to natural gas distribution system accidents in Maryland before (up to and including 2013) and after the STRIDE law (2014-2022 inclusive).



Sources: Data extracted from PHMSA[11]

Figure 2 shows accidents in each of these two periods classified into material-related causes (whether due to aging or not) and all other causes.

There were no fatalities due to material-related causes, including aging pipelines, between 2005 and 2022, and only two serious injuries—one before STRIDE and one after. By this measure the system was safe in terms of material defects before the STRIDE law and remained so after it. **Hence, investments under the STRIDE law, which is aimed at addressing material-related issues, have had no demonstrable impact on the frequency of severe accidents.**

All nine fatalities were due to other causes—*and all were in the period after the STRIDE law was passed*. Seven of the nine fatalities occurred in a single accident, a 2016 explosion in an apartment building in Silver Spring (Montgomery County). The accident did not involve the distribution pipeline system. Rather it was due to "the failure of an indoor mercury service regulator with an unconnected vent line...."[12] The other fatalities were also not due to material-related causes. The one in 2014 was due to a gas explosion in a building;[13] the one in 2021 was due to an excavation accident—one of the most common types of natural gas-related accidents. A worker was killed in that case.

We also considered PHMSA's broader category of "significant incidents," which includes not only incidents involving fatalities and serious injuries but also incidents causing damage in excess of $50,000. We considered costs of all significant pipeline incidents, including gas and liquid fuel pipelines, and also considered only significant incidents related to the natural gas system. Table 3 shows the results in constant 2017 dollars. It is clear that STRIDE, besides not reducing serious accidents, has also not reduced the costs of significant incidents. On the contrary, costs of all significant events almost doubled in the post-STRIDE period. The cost of significant natural gas distribution system incidents increased by 50%.

Table 3: Frequency, total cost, and annual average cost of significant pipeline incidents—all significant incidents and natural gas distribution system significant incidents only.

Significant incidents included	Number of significant incidents		Cumulative cost, 2017 dollars		Annual average cost, 2017 dollars	
	2005-2013	2014-2022	2005-2013	2014-2022	2005-2013	2014-2022
All pipeline	19	18	$9,202,814	$17,276,025	$1,022,535	$1,969,757
Natural gas distribution only	15	10	$8,477,173	$13,031,775	$941,908	$1,447,975

Note: St. Louis Federal Reserve GDP deflators[14] were used to convert current dollars reported in PHMSA's data to constant 2017 dollars.

The STRIDE law says the Commission may approve a surcharge if it determines that the proposed costs are "reasonable and prudent" and that the proposal is "designed to improve public safety or infrastructure reliability over the short term and long term." The term "safety" is not defined in the law. No metric for the improvement of public safety as a result of the investments is set forth as a marker that would indicate that the billions that ratepayers would be required to pay have measurably yielded a safety return. The term "reliability" is not defined, nor were there any metrics for measuring it set forth in the law. The Commission has the power to "review a previously approved plan," and, if it finds that the investment "no longer meets the requirements" of improving public safety or infrastructure reliability, it could "alter or rescind approval of that part of the plan."[15] To date, the Commission has not significantly altered or rescinded any gas utility plan it had approved under STRIDE.

The law requires either safety or infrastructure reliability improvements in the short-term and long-term. Safety as measured by serious accidents and their outcomes has, if anything, deteriorated in the nine years since STRIDE went into effect. Costs of significant natural gas distribution system incidents have gone up by about 50%. Is everything to be ascribed to infrastructure reliability without any metrics? What customer benefits correspond to the billions that ratepayers will pay?

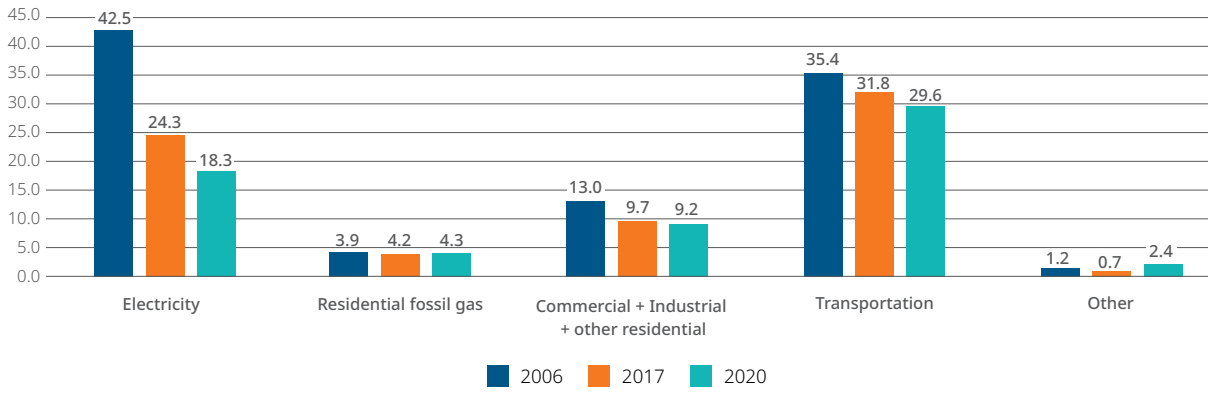
Maryland Climate Goals and STRIDE

Two laws have been passed since 2013 that are material to revisiting STRIDE. The first is a law passed in 2021 that requires the Public Service Commission to take climate change into account in its proceedings and decisions according to the most recent scientific evaluation of the matter by the Intergovernmental Panel on Climate Change.[16] That science indicates that limiting average global temperature rise to 1.5° C is essential; this indicates global net-zero greenhouse gas emissions by about 2050. Having contributed most to the problem, wealthy countries like the United States have greater responsibilities in meeting that target under the foundational treaty on climate—the 1992 United Nations Framework Convention on Climate Change.

Maryland's Climate Solutions Now Act of 2022 sets goals that are consistent with recent science. It sets a goal of net-zero greenhouse gas emissions by 2045 and an intermediate term goal of 60% reduction of emissions relative to 2006 by the year 2031.[17]

Figure 3 shows the evolution of CO_2 emissions from the energy sector as estimated by the Maryland Department of Environment. It is notable that emissions have been declining in the major sectors of emissions except the residential uses of natural gas.

Figure 3: Maryland energy sector CO_2 emissions by consuming sector for the years 2006 (baseline), 2017, and 2020.

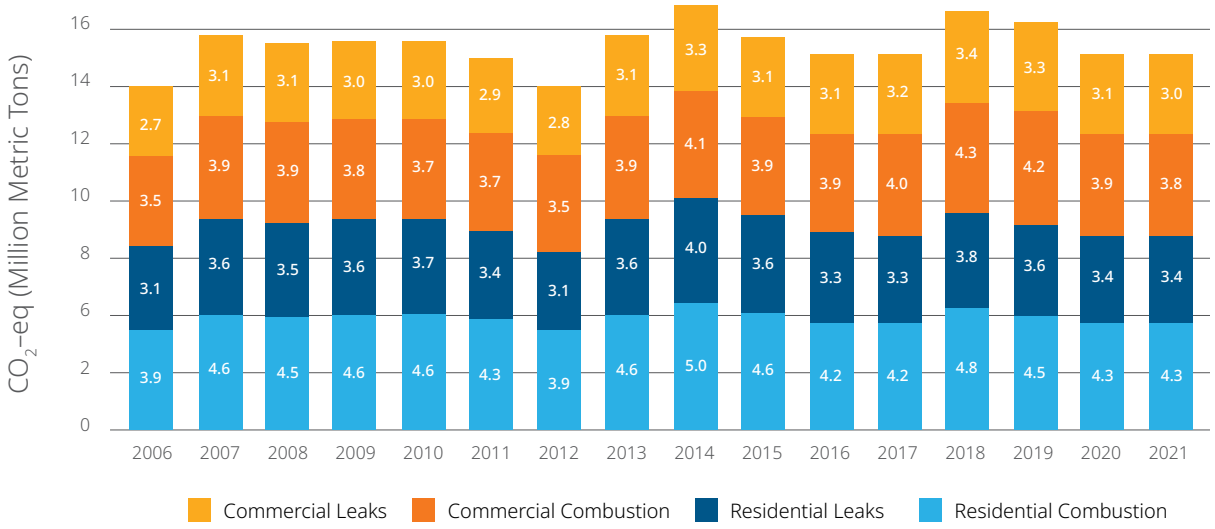


Note: While labeled CO2-eq in the official inventory, natural gas leaks are accounted for in a separate category called "natural gas industry" not shown in Figure 3.

Source: Maryland Department of Environment greenhouse gas inventories.[18]

The emissions shown in Figure 3 do not include the impact of natural gas system (methane) leaks. Figure 4 shows greenhouse gas emissions from residential and commercial buildings when leaks are factored in using a 20-year global warming potential (GWP) for methane, as required by the 2022 Climate Solutions Now Act.

Figure 4: Residential and commercial sector emissions due to natural gas use. Overall leak rate for natural gas taken as 2.7%.



Source: Reproduced from Makhijani et al., 2023, Figure 4-2, p. 100. Leak rate based on natural gas sold and calculated from the Alvarez et al. 2018[19] rate of 2.3% based on natural gas production.

The STRIDE law includes the reduction of greenhouse gas leaks as one of its goals. BGE has claimed in its recent natural gas rate case before the Commission that STRIDE pipe replacements between 2017 and 2021 reduced natural gas leaks by nearly 47,000 tons of CO_2-equivalent annually.[20] This estimate was not based on measurements, but rather calculated based on formulas provided by the EPA for national averages of leaks from different types of pipes, as allowed by federal regulation.[21] But even taking it at face value, it is a meager return on the vast sums invested.

The 2017-2021 period was a mix of STRIDE I and II—with BGE capital expenditures about $750 million total in this period.[22] Over time, ratepayers would pay roughly $2.2 billion, including BGE's profit. The cost of achieving this carbon reduction via leak reduction would depend on how long the gas pipelines were in use. If natural gas or other forms of methane (such as the so-called "renewable natural gas") were to enable continued use of these pipelines, the 47,000 tons per year might extend for as long as 50 years (assuming no deterioration in the replaced pipes). But if pipelines

become stranded costs, as is more likely if the Climate Solutions Now Act is rigorously implemented, it might be as little as 25 years, possibly less depending on the geography and pace of distribution system retirement.[ii] Using this range, the cost to ratepayers of avoiding CO_2-equivalent emissions would be between $1,000 and $1,900 per ton (rounded). This is extremely expensive greenhouse gas mitigation. For instance, the cost of one of the most expensive methods—capture from the air (known as direct air capture)—is estimated to be in the range $250 to $600 per metric ton.[23] Far cheaper methods of mitigation are widely available. Thus, even by the leak mitigation metric, STRIDE investments cannot be said to be successful—much greater carbon reductions could be had for the same investment.

The relatively constant, or even slightly rising emissions due to natural gas use since 2006 in the buildings sector present a contrast with the other major sectors, where there have been moderate to large reductions in emissions since 2006. Given that there are difficult sectors for emissions reduction, such as cement production, high temperature industrial heat, and aircraft fuel, the elimination of natural-gas-related emissions from the buildings sector will have to be nearly if not entirely complete to meet the requirements of the 2022 Climate Solutions Now Act. Reinforcing that case is the stark fact that phasing out natural gas will occur as an economic imperative in the medium term—well before 2045—as discussed below.

The need to reduce natural gas-related emissions from the buildings sector almost completely has been recognized as a climate imperative in the most recent study commissioned by the Maryland Department of Environment. Maryland's Climate Pathway,[24] published in 2023, estimates that the Climate Solutions Now Act will require actions in the buildings sector such as replacing appliances that use natural gas with those that use electricity and electrifying heating, in addition to making efficiency improvements for these end uses. The study estimates that to meet the targets of the Climate Solutions Now Act, natural gas-related greenhouse gas emissions in the buildings sector would decline by about 90% between 2006 and 2050, with the corresponding declines in natural gas use in commercial buildings estimated to be close to 100% and that in the residential sector estimated to be about 80%.[25,iii]

[ii] As discussed below, retirement of gas infrastructure is and should be an option. For instance, that is the purpose of a pilot project proposed by Public Service Company of Colorado in a commercial area in Boulder.

[iii] The analysis in this report shows that retaining any significant natural gas use, much less 20%, would result in serious negative economic and social impact, so that essentially complete electrification of the residential sector is essential.

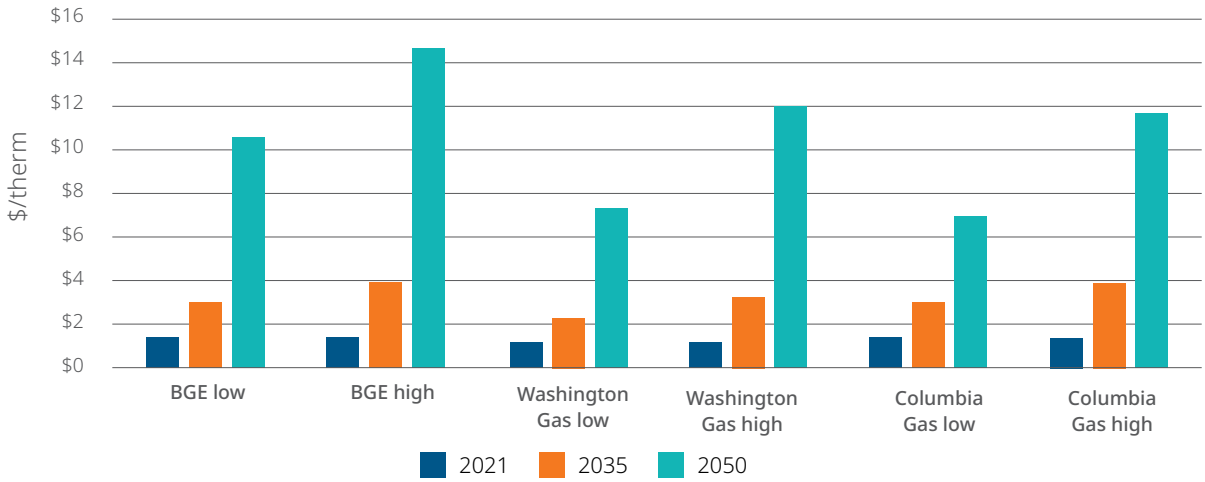
Natural gas rates

In the absence of affirmative policy action, declines on the order of 90% in residential natural gas use in the next 25 years or so will entail significant stranded costs, skyrocketing rates, or both. For instance, Figure 1 above shows that if STRIDE investments continue, natural gas ratepayers will be paying for them for another six decades. The same dynamic applies to new pipelines and new natural gas connections. Maryland's Climate Pathway, commissioned by the Department of Environment to inform the state's "thinking and next steps to confront the climate crisis" recognized the problem in a section entitled "System Fragility Under Rapidly Declining Usage" of natural gas. But the study did not substantively address how to solve the problem; it only called for future research:

> *A rapid decline in natural gas consumption means that natural gas customers remaining in the system would likely experience higher utility bills due to infrastructure costs being spread over a smaller customer base. This would have a disproportionate impact on LMI [low- and moderate-income] consumers and renters who are unable to switch to alternative energy sources because they don't own their own equipment or can't afford to electrify their equipment.*
>
> *Mitigation of cost impacts for LMI customers will become essential in these circumstances to ensure an equitable transition. Research on methane leak detection and prevention strategies has also highlighted the challenges faced in pursuing these strategies as the system loses customers and has limited capital resources. However, continuously expanding natural gas infrastructure would delay the inevitable transition to clean energy and could cause major economic losses from stranded assets. Further research is needed on mid-transition system dynamics to address these issues effectively and determine the rate impacts on customers of lower system throughput.*[26]

This is an excellent problem statement—with one important omission. It does not mention the vast STRIDE investments in existing infrastructure; since these are recoverable through rates with a return on investment until fully depreciated, the impact on rates will be compounded, as has been demonstrated in a 2022 study by the Office of People's Counsel (OPC). Figure 5 shows the impact on rates as estimated by OPC's modeling of natural gas use reduction compatible with the Climate Solutions law.

Figure 5: Natural gas residential rate changes with continued STRIDE investments between 2021 and 2050.



Note: $/therm calculated in constant 2020 dollars

Source: OPC 2022[27] p. 19

Makhijani et al. (2023) found very similar results when they analyzed the problem in a comprehensive study examining the policies needed to achieve equity in the energy transition for low- and moderate-income households—and the severe increases in energy cost burden of a failure to achieve equity. The study also found that "renewable natural gas" and other fuels claimed to be low-emissions replacements for natural gas would result in an even worse problem because these fuels are more expensive than natural gas.[28]

STRIDE is not the only mechanism through which customers are threatened with long-term costs associated with replacing natural gas infrastructure that Maryland's climate goals will render obsolete. BGE has now shifted its pipeline replacement program to its 2023 long-term rate case where that activity is mixed up with a range of other investments, including the replacement of regulators. BGE's pipeline replacement program includes supply of gas at higher pressures. As a result, BGE is now replacing gas regulators to match the pressure changes on the grounds of safety, reliability, and reducing leaks. The regulators alone have cost about $81 million in the period 2020-2022 (inclusive)—an average of $27 million per year, or more than $6,000 per residence.[29] Like the STRIDE pipeline replacements, the regulator replacement costs would be added to the rate base, adding to the already huge stranded cost risks of the STRIDE program.[30] It is not that replacement of specific regulators (or pipe sections for that matter) does not have the potential to increase safety. But the failure of STRIDE investments to improve safety generally shows that risk should be identified in the specific instance where the replacements are made.

Despite the above, gas utilities are proposing to increase the pace of investments in replacing natural gas infrastructure relative to the STRIDE

proposals previously filed with the Commission, according to a report by the Office of People's Counsel. For instance, Washington Gas's updated STRIDE proposals indicate a 33% increase in revenue requirements compared to the prior plan.[31] These utility plans have not yet been approved by the Commission and have therefore not been analyzed in this report.

Energy cost burdens

The average use of natural gas in households that have natural gas in Maryland is about 710 therms (71 million Btu) per year. This means that an average natural gas bill for a BGE customer in 2021 would have been about $950 per year. The bill would increase to about $2,100 per year by 2035 and $7,500 per year by 2050 in the absence of countervailing action(s) as per the OPC "low" estimate of BGE rates. At the "high" end, the corresponding bills in 2035 and 2050 would be about $2,800 and $10,300, respectively (in constant 2020 dollars).[iv] At the high end the estimated natural gas bill in 2050 would be almost equal to half the federal poverty level for a family of three in 2021. In other words, for tens of thousands of Maryland families with very low incomes, natural gas bills alone would equal or exceed their entire income (see below for details). Electricity bills would be on top of that.

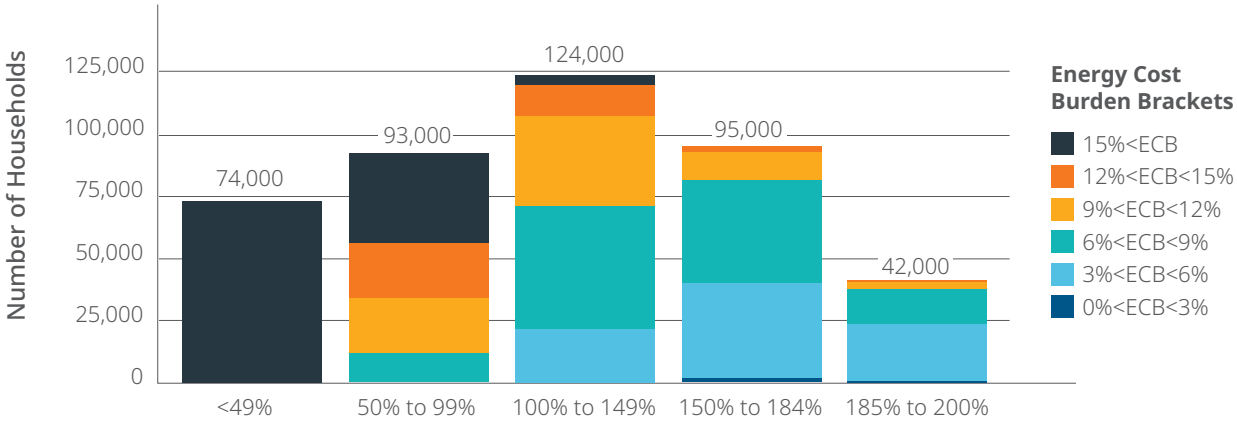
Rising costs would—as is generally recognized, and as was noted in the Maryland's Climate Pathway study quoted above—spur a conversion to electricity. Initial costs of heat pumps for space heating and water heating are estimated to be somewhat lower than comparable natural gas systems for both new housing and retrofits. At the 2020 rates used in the study, the energy cost of electricity would typically be a few dollars per month higher in case of heat pump retrofits ($600 over the life of the system).[32] These small cost differences would be quickly overwhelmed by rising natural gas rates in the 2030s. This would likely cause a mass exodus from the gas system for homeowners who could afford it. Renters, especially low- and moderate-income renters, would be left facing bills they could not afford because they would not be in a position to make the shift to electrification or even to invest heavily in improving building envelope performance. The classic "split incentive" problem in which the landlord has no incentive to invest because the renter benefits from efficiency investments would become a gaping inequity; large numbers of households would fall into economic distress, ill-health, and all too often homelessness.[v]

Figure 6 shows energy cost burdens of low- and moderate-income households in Maryland as estimated in Makhijani et al. 2023.

[iv] All values are rounded to the nearest $100. The calculations assume no efficiency improvements in natural gas use and no deterioration of equipment relative to 2021. Since the poverty level is adjusted for inflation, no adjustment in the 2021 dollar levels are necessary since all calculations are in constant dollars.

[v] The severe damage to families from unaffordable energy bills is discussed at length in Makhijani, Mills, and Makhijani 2015 and also in Makhijani et al. 2023.

Figure 6: Energy cost burdens of households with incomes below 200% of the federal poverty level.



Note: About 50,000 households with burdens >6% and income >200% FPL not shown.

Source: Makhijani et al. 2023, Chapter 2.

Tens of thousands—and potentially hundreds of thousands—of Maryland households could fall into energy poverty in the 2030s in the face of rising heating bills. By 2035, energy cost burdens for a family of three at the poverty level would increase by seven percentage points if they had average natural gas use.[vi] As a result natural gas bill increases alone would cause the energy affordability threshold of 6% of income to be exceeded for tens of thousands of families before 2035.

Another way to look at it is that a rise of about $1,500 in typical natural gas bills[vii] would more than wipe out the entire benefit of energy assistance programs.[33] The rise in natural gas costs would effectively mean some combination of a downward economic spiral for low-income and many moderate-income families, increasing need for energy assistance (with corresponding burdens for other ratepayers and/or taxpayers), or some combination of the two. In contrast, gas companies, guaranteed a return on investments approved by regulatory authorities, would, in theory, continue to be made whole.

This is an unsustainable scenario in which almost the entire society suffers serious adverse consequences for the sake of maintaining the profits of a line of business that state law and sound science require to be retired and replaced with cleaner fuel.

[vi] Using the average of low and high estimates for BGE shown in Figure 5.

[vii] Using the average of the low and high estimates of rates in 2035 cited above.

Indoor air pollution and natural gas health risks

Low-income communities and communities of color tend to be disproportionately impacted by, and are more susceptible to, environmental risk factors and adverse health outcomes. Because Maryland has a higher proportion of people of color than the national average, and Baltimore City has a higher poverty rate than the state or national average, its residents may be particularly vulnerable to degraded indoor air quality. Additionally, those with underlying respiratory or cardiovascular conditions may also be particularly vulnerable to indoor air pollution. The issue is illustrated by the fact that Baltimore low-income homes have a considerable problem of indoor carbon monoxide (CO) pollution due to natural gas use.

The Maryland Department of Housing and Community Development (DHCD) performed combustion appliance safety inspections for vented appliances in households by measuring indoor CO concentrations near combustion appliances. Combustion appliances are a significant source of CO indoors. CO is an odorless, colorless, toxic gas. Exposure to CO can be fatal at high concentrations over short durations; it is associated with various adverse health effects at lower levels according to the Agency for Toxic Substances and Disease Registry of the Centers for Disease Control and Prevention, including:[34]

- Miscarriage at higher levels.
- Permanent harm to the heart and brain even at lower levels.
- Harm to children's mental development when breathed in during pregnancy even at lower levels.

CO is also one of the criteria air pollutants for which the U.S. EPA establishes air quality standards—but only for outdoor air. Thus the public is unprotected by any government regulation or standard from indoor air pollution, including from among the most serious air pollutants like carbon monoxide.

Outdoor air standards nonetheless provide metrics for the levels that could produce harm:

- Nine parts per million of CO should not be exceeded for eight hours more than once a year.
- Thirty-five parts per million should not be exceeded for an hour more than once a year.
- Seventy parts per million requires evacuation.

All of these levels have been exceeded in some low-income Maryland homes. Table 4 shows the data from low-income homes in Baltimore that were retrofitted. The measurements were taken as part of the retrofit procedure; the retrofit would, among other things, remediate the high CO problems.

Table 4: Carbon monoxide pollution frequency (and percentage) in low-income Baltimore homes being retrofitted.

Appliance Type	> 9 ppm (%)	> 35 ppm (%)	> 70 ppm (%)	Maximum
Cook stove	39 (5.4%)	27 (3.7%)	19 (2.6%)	91.9
Furnace	26 (1.8%)	23 (1.6%)	14 (1.0%)	90.1
Gas oven	23 (5.6%)	1 (0.2%)	1 (0.2%)	80.6
Hot water tank	9 (0.7%)	8 (0.6%)	6 (5.4%)	87.9
Gas fireplace	1 (4.5%)	0 (0.0%)	0 (0.0%)	18
Total	98 (2.1%)	59 (1.3%)	40 (0.9%)	-

Source: Maryland DHCD data as compiled by and analyzed in Makhijani et al. 2023, op. cit., Chapter 3.

These are high frequencies of a problem that may well be causing many serious adverse health outcomes in Baltimore City. Perpetuating natural gas use will tend to perpetuate these problems, which would be aggravated by the disproportionate and severe adverse economic impact of rising natural gas rates on low-income households and renters.

Retaining back-up residential natural gas heating is unnecessary

BGE, by far Maryland's largest natural gas company, recently filed a multi-year rate case that includes a proposal to help households with natural gas heating convert to electric heat pumps. The company proposes to provide rebates—up to $7,500 per household—for converting natural gas to heat pump heating. There is general agreement that such conversions are necessary to fulfill climate goals. But BGE's proposal has a catch: the customer would have to keep their natural gas heating system as a supplemental source of heat for the coldest hours. BGE's reason: Relying only on air-source heat pumps would require electrical resistance supplemental heat, which would aggravate electric peak loads and require costly investments.

The full text and context of BGE's testimony is worth quoting because it flies in the face of concerns about this very approach raised by the Mitigation Working Group of the Maryland Commission on Climate Change, which is the state's official advisory body on climate-related matters. BGE's rationale in its rate case for

requiring natural gas heating in the context of electrification is as follows:

> *It is important to note, however, that today's ASHP [air-source heat pump] technology is limited in home heating effectiveness below certain temperatures. ASHPs operate less efficiently at low temperatures, i.e., using significantly more electricity per degree of heating as they attempt to provide heat required for a home at those extreme temperatures. Thus, in our region ASHPs typically require a backup heat source to ensure customers' winter safety and comfort, which backup may be either electric—in the form of more inefficient electric resistance heating—or gas. The State's ambitious CSNA [Climate Solutions Now Act] goals will require broad deployment of ASHPs throughout Maryland and BGE's territory, specifically, so inefficient backup electric-sourced heating with ASHPs threaten to significantly impact our electric grid during winter peaking periods. In order to avoid more expensive grid infrastructure upgrades and overall higher costs to our customers, BGE therefore proposes that customers supplementing natural gas furnaces with ASHPs must maintain a natural gas furnace as the backup heating system to receive BGE's BE Program rebates.*[35]

The technical reference for this reasoning is a report commissioned by BGE that was published in October 2022.[36] A similar study published a year before, commissioned by the Maryland Department of Environment from the same company ("E3")—with the same two principal authors—had recommended the same approach for the same reasons; that study also concluded hybrid heat pump-natural gas heating would be the lowest cost approach.[37] The Mitigation Working Group (MWG) of the Maryland Commission on Climate Change concluded that such a policy would be complicated to implement and raised equity concerns; in response E3 developed a new "MWG Policy scenario" in which essentially all residential buildings would be electrified by 2045 while commercial buildings would retain some flexibility. The scenario was described in the Building Energy Transition report of the Maryland Commission on Climate Change as the lowest cost scenario.

The "lowest cost" claim for the MWG Policy scenario is based in part on allowing substantial continued use of natural gas in the commercial sector and the purchase of offsets to supposedly compensate for those emissions—a dubious proposition at best and one that E3 did not model for other proposed net-zero scenarios to provide an apples-to-apples cost comparison. The analysis in this report shows clearly that the residential sector would confront a grave crisis of affordability and equity should natural gas infrastructure remain in place as most households electrify. The commercial sector would likely confront very similar issues due to inexorable arithmetic of drastically declining natural gas use. However, the commercial sector is beyond the scope of this report and deserves a much more detailed analysis in its own right. The Maryland's Climate Pathway report posited essentially a total phase out of natural gas in the commercial sector by 2050; it did not detail costs and acknowledged the challenges of converting old buildings.[38]

Maryland is not alone in confronting this issue. The Public Service Company of Colorado, which supplies gas and electricity (and can be regarded as a Colorado equivalent of BGE), evaluated natural gas infrastructure upgrades versus full electrification and elimination of the

gas infrastructure in a commercial section of Boulder, Colorado; it recommended the electrification option as a pilot project. The company also stated, in its regulatory filing justifying the expenditure, that the project was "scalable, and results are applicable to other customers with gas loads that are traditionally viewed as hard to electrify."[39]

The analysis in this report shows that electrification of the residential sector is the more economical option and also the more equitable one. It is in accord with the residential sector analysis of the MWG Policy scenario according to which natural gas use would end totally or nearly completely by 2045. Low-income households would be retrofitted and electrified with higher priority. Specifically the Buildings Energy Transition Plan recommended the following:[40]

- An all-electric construction code with "zero direct emissions" should be put in place for residential buildings by 2024.
- All existing homes should have "zero direct emissions" by 2045.
- All low-income homes should have "comprehensive retrofits" by 2030.
- "The state assist households with high energy burden to transition off the gas system before gas rates increase above current levels."

It is critical to note that the recommendations distinguish between "zero direct emissions"—that is zero emissions at the point of use—from "net-zero emissions" with considerable leeway for offsite offsets for onsite emissions. The recommendations include the possibility of "net-zero emissions" in existing commercial buildings but not in existing residential sector buildings. These findings were endorsed by the Maryland Climate Commission in its 2022 report to the state's legislature; the commission attached the Buildings Energy Transition Plan to its report.

The BGE proposal in its 2023 rate case is especially noteworthy—and problematic. BGE, in effect, rejected the residential recommendation of zero residential emissions and support for early full electrification and disconnection of natural gas from low-income homes. Rising costs, especially for low-income Marylanders, were a central concern that was reflected in the report's recommendations for existing buildings in the residential sector.

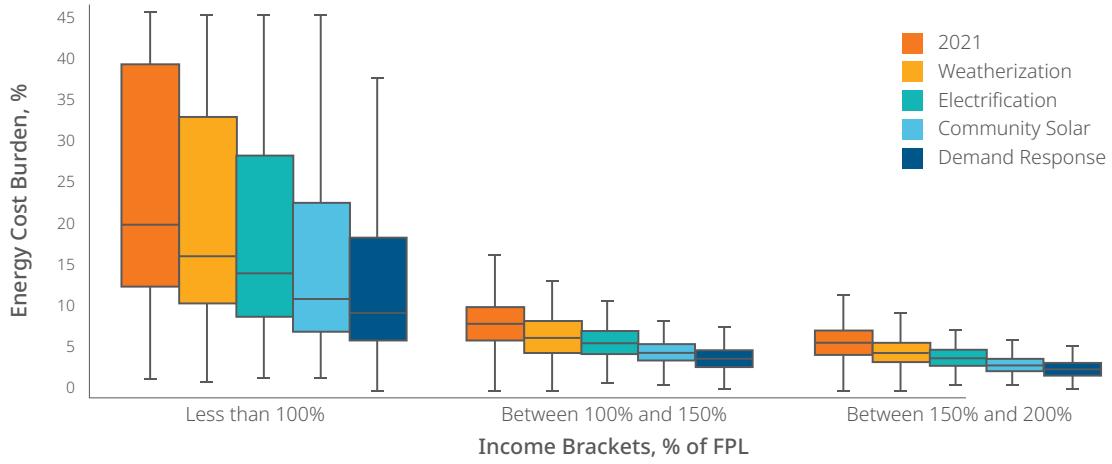
The BGE-commissioned E3 study has extensive discussion of the winter peak demand that would be created by electrification of heating. The BGE-commissioned study downplays the potential of demand response to further reduce peak electric demands, despite the fact that it is considered on a par with dispatchable electric generation resources by the Federal Energy Regulatory Commission.[41]

The issue of hybrid systems was also analyzed in Makhijani et. al. (2023) report, which concluded that it would be cheaper to install geothermal heat pumps than to use natural gas as supplementary heat to avoid utility system peaks. Even that is not necessary, given the advances in air-to-air heat pumps that are incorporated in what have come to be called "cold climate heat pumps." Energy Star has even developed certification or cold climate heat pumps optimized for winter performance.[42] They have been demonstrated to work *without auxiliary heat* in Minnesota and North Dakota at temperatures below -20° F[43]—far lower than anything that would be encountered in Maryland.

On a deficient and incomplete analysis, BGE proposed *requiring* households to have natural gas supplemental heat in return for rebates for heat pumps. Egregiously, BGE sought to add the rebate amounts to its rate base so that it could earn a profit on rebates and property that, in the vast majority of cases, would not be owned by BGE but by its customers. In all $272 million was proposed to be added for electrification rebates, of which 96%, or about $262 million, was in the buildings sector. The utility rebates in efficiency programs are recovered at cost from ratepayers as part of Maryland's EMPOWER program. Charges for arrears in recovery have been added, but as these mounted the commission ruled that recovery should occur in the same year. These facts were among the reasons that the Office of People's Counsel petitioned the commission to reject that part of BGE's rate case filing.[44] In deciding in the Office of People's Counsel's favor, the commission noted that the total amount would be large—about $400 million—and so in part for that reason should be taken up in a separate proceeding where stakeholders could present alternatives.[45]

Indeed, more economical, equitable, and environmentally responsible alternatives have already been identified. A comprehensive energy equity study analyzing the energy transition in the Maryland residential sector published by the Institute for Energy and Environmental Research and PSE Healthy Energy in 2023[46] showed that a combination of building envelope improvements, efficient electrification of space and water heating, community solar, and demand response coupled with energy assistance could fully address both climate and equity goals (Figure 7). A remarkable result is that even before the full transition is complete, the funds needed for energy assistance would be less than those available in 2021 while all households would have affordable energy. Only the lowest income households would need bill-payment assistance.

Figure 7: Components of achieving climate and equity goals for low- and moderate-income households in Maryland.



Source: Makhijani et al 2023

Conclusions

Declining natural gas use, skyrocketing rates, and stranded costs are poised to place enormous economic pressures on a dwindling number of natural gas customers. Without strong countervailing action, this problem is on course to become severe in the early to mid-2030s, especially for low- and moderate-income households unable to convert from natural gas to electricity because they cannot afford it or because they are renters.

An increase in bills of $1,000 to $2,000 per year by the mid-2030s would devastate tens of thousands of households and seriously increase financial stress for hundreds of thousands more. As it is, large percentages of energy burdened households suffer ill-health because they cannot afford to keep their homes warm enough, among other reasons. Nationally, about 5% of households who receive federal heating bill assistance lose their homes each year due to rent/utility bill payment conflicts. While there are no comparable statewide data for Maryland, there were about 6,400 evictions in Baltimore City alone in the year between July 2018 and June 2019, representing roughly one in 12 low-income renters.[47] While it is difficult to disentangle all the financial pressures that result in evictions, national data make it clear that rent payment conflicts with utility bills are among the major reasons.[48]

The middle estimate of natural gas rate increases (discussed on pp. 16-18) would increase the energy cost burden of a family of three at 50% of the poverty level by a devastating 13.5 percentage points. The cost to them in terms of economic and social dislocation and ill-health would be incalculable. The cost to society could run into tens of millions of dollars in the form of needs for housing support, more emergency room visits, and dislocation of families.[49]

The Maryland's Climate Pathways study (quoted on p. 16) called for research on and analysis of the problem of rising rates and stranded costs in the middle of the energy transition period—which would be the 2030s. *But the core of the needed research has already been done*. The Office of People's Counsel published two studies on the topic in October 2022 and November 2022; it was also addressed in detail in Makhijani et al. (2023).[50,viii]

The math is straightforward; so are the conclusions. It is an economic, social, and political imperative that natural gas use in the residential sector be phased out as early as possible and at the latest by Maryland's net-zero date of 2045. To insulate low-income households from catastrophic economic consequences of declining natural gas use, electrification with disconnection of gas should be completed before 2035 to the greatest extent possible.[ix]

[viii] Interestingly, Maryland's Climate Pathway also does not address the STRIDE law or the investments in it that are a principal part of the state's stranded cost problem.

[ix] The Buildings Transition report of the Mitigation Working Group recommended completion by 2030. While this would be desirable, it also critical to ensure quality installation and educational efforts of both the contractor and consumer communities. In the latter case, demand response participation and education for that should be integrated into the installation process.

To achieve this, state policymakers need to take several steps:

- The STRIDE program must be repealed.
  - STRIDE investments have not prevented or mitigated natural gas system-related fatalities. Rather, all fatalities in 2005-2022 timeframe occurred in the post-STRIDE period. None were related to material causes such as aging, corrosion, or defective welds.
  - The STRIDE law creates an economic landscape in which continued large-scale use of natural gas would be necessary to avoid huge stranded costs and steep natural gas rate increases in the 2030s.
  - STRIDE law and other continued major investments in the regulated gas infrastructure are in serious conflict with state's climate and equity goals, which require a near total elimination of the use of natural gas in residential (and in some scenarios, commercial) buildings by 2045.
- Efforts to achieve the same ends as the STRIDE program through other means—for example, BGE's current rate case—should also be blocked.
- The PSC should order an urgent and detailed identification of specific geographic areas with clear safety issues, with actual field data and gas company records.
  - The most urgent specific safety problems should be addressed by appropriate combinations of repairs and investments.
  - At the same time these very areas would be targeted for priority electrification especially if there are investments with profits attached rather than repairs.
  - All low-income homes should be fully electrified as early as possible—at the latest by the mid-2030s.
  - Maryland should require new residential and commercial buildings to be all-electric by 2025. Electric technologies, especially for home heating, are now more cost-effective for customers, and new federal incentives can reduce costs further.
  - The Maryland Public Service Commission should agree to the February 2023 request of the Office of People's Counsel to initiate a broad proceeding on natural gas that includes economic and climate considerations and that considers both the steps needed in the short-term as well as the long-term climate and economic imperatives discussed above.[51]

It is now widely recognized that all-electric, efficient new residential construction as well as all-electric retrofits (along with efficiency improvements) are central to meeting climate goals efficiently, expeditiously, and economically. Yet Maryland follows a course set out by the General Assembly a decade ago that actually accelerates investment in gas infrastructure and directly conflicts with its more recently adopted climate goals, threatens consumers with exploding costs, and perpetuates health and economic disparities. With each passing year, this problem gets worse, both because of continued STRIDE-related investments and investments in expanding natural gas infrastructure with more long-term economic threats to consumers and a greater challenge to meet Maryland's climate goals. State policymakers must step in—and soon.

Endnotes

[1] Makhijani et al., Energy Affordability in Maryland: Integrating Public Health, Equity, and Climate, Institute for Energy and Environmental Research and PSE Healthy Energy, February 2023.

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[9] Arjun Makhijani, Christina Mills, and Annie Makhijani, Energy Justice in Maryland's Residential and Renewable Energy Sectors. Takoma Park Maryland: Institute for Energy and Environmental Research, 2015, at https://ieer.org/wp/wp-content/uploads/2015/10/RenMD-EnergyJustice-Report-Oct2015.pdf https://ieer.org/wp/wp-content/uploads/2015/10/RenMD-EnergyJustice-Report-Oct2015.pdf215, at Electricity use in Maryland's residential sector has stayed about the same overall. The per household decline in electricity use has been taken into account in the estimate of 6,800 kWh/year (rounded).

[10] Calculated using rates reported in the Maryland State Electricity Profile of the Energy Information Administration (at https://www.eia.gov/electricity/state/maryland/xls/md.xlsx) and the GDP deflator as reported by the St. Louis Federal Reserve at https://fred.stlouisfed.org/series/GDPDEF/

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[15] Ibid. , Sections J(1) and (2).

[16] Maryland Code, Public Utilities, § 2-113, Duty of Commission to supervise and regulate public service companies, Effective: October 1, 2021

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[41] Federal Energy Regulatory Commission, Participation of Distributed Energy Resource Aggregations in Markets Operated by Regional Transmission Organizations and Independent System Operators, FERC Order 2222, Final Rule, Department of Energy, published on 17 September 2020 at https://www.ferc.gov/sites/default/files/2020-09/E-1_0.pdf

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[43] A Minnesota video—"Heat Pump Extreme Cold: Tested" with thermal imaging and temperature data is at https://www.youtube.com/watch?v=wCZrBI3PFag ; a similar North Dakota video—"MrCool Heat Pump Heats at -24oF"—is at https://www.youtube.com/watch?v=_v8vizQXwss

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[45] Maryland Public Service Commission, Order No. 90755 Baltimore Gas and Electric Company's Application for an Electric and Gas Multi-Year Plan—Order on the Office of People's Counsel Motion to Strike, 9 August 2023 at https://webpsc.psc.state.md.us/DMS/case/9692 Listing No. 75 in the case number, file number 304507_14718.

[46] Makhijani et al. 2023, op. cit.

[47] Tim Thomas, Malcolm Drewery, Meredith Greif, Ian Kennedy, Alex Ramiller, Ott Toomet, and Jose Hernandez, Baltimore Eviction Map, The Eviction Study, 8 May 2020 at https://evictionresearch.net/maryland/report/baltimore.html

[48] Based on a federal survey as analyzed in Makhijani et al. 2023, Sections 5.2 and 5.3

[49] See Makhijani, Mills, and Makhijani 2015, op. cit., and Makhijani et al. 2023, for detailed explanation of the costs to non-low-income households as a result of dislocation of low-income families to utility bill and other financial stresses.

[50] OPC October 2022, op. cit. and OPC November 2023, op. cit. , and Makhijani et al. 2023, op. cit.

[51] Office of People's Counsel, Petition of the Office of People's Counsel for Near-Term, Priority Actions and Comprehensive, Long-term planning for Maryland's Gas Companies, 9 February 2023.

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SB548 _FAVORABLE_A. MAKHIJANI:MEAC.pdf
Uploaded by: Arjun Makhijani
Position: FAV

INSTITUTE FOR ENERGY AND ENVIRONMENTAL RESEARCH
Democratizing science to protect health and the environment

Arjun Makhijani testimony on Ratepayer Protection Act, SB548

Before the Senate Education, Energy, and Environment Committee, February 15, 2024

My name is Arjun Makhijani. I am president of the Institute for Energy and Environmental Research. I have a Ph.D. from the Department of Electrical Engineering and Computer Sciences of the University of California, Berkeley, where I specialized in controlled nuclear fusion. I have been doing scientific and technical work on energy and environmental issues for more than 50 years. I am testifying today in support of the Ratepayer Protection Act, SB548, on behalf of the Maryland Energy Advocates Coalition. I appreciate this opportunity to testify before you on this very important legislation.

My study, *The Trouble with STRIDE: Meeting climate goals and addressing natural gas system stranded costs*,[1] which was published in December 2023, is the basis of my testimony. I am submitting it as an Exhibit to provide with the extensive technical and economic detail that underlies my testimony.

The 2013 Strategic Infrastructure Development and Enhancement ("STRIDE") Act intended to improve the safety of Maryland's natural gas system by, among other things, incentivizing replacement of parts of the existing natural gas pipeline infrastructure.

However, the record since the law was passed shows that the $2.1 billion in STRIDE-related investments (about $1,750 per gas customer) already authorized did not materially improve natural gas distribution system safety in Maryland. The very small rate of material-, aging-, or corrosion-related serious accidents was the same in the period before STRIDE as in the period after it. Further, the rates of serious injuries and deaths due to all other causes were far greater in the nine-year post-STRIDE period (2014-2022, inclusive) due to compared to the nine-year period (2005-2013, inclusive) before it. Serious accident data for the two periods, categorized by broad causes, are shown in Figure 1 which is taken from my report.[2] Serious accidents are defined as those resulting in death or serious injury.

[1] Arjun Makhijani, *The Trouble with STRIDE: Meeting climate goals and addressing natural gas system stranded costs*, Abell Foundation, December 2023 on the Web at https://abell.org/wp-content/uploads/2023/12/2023_Abell-Foundation_Climate-Policy-report_1-7mm.pdf

[2] Makhijani 2023, op. cit., p. 11.

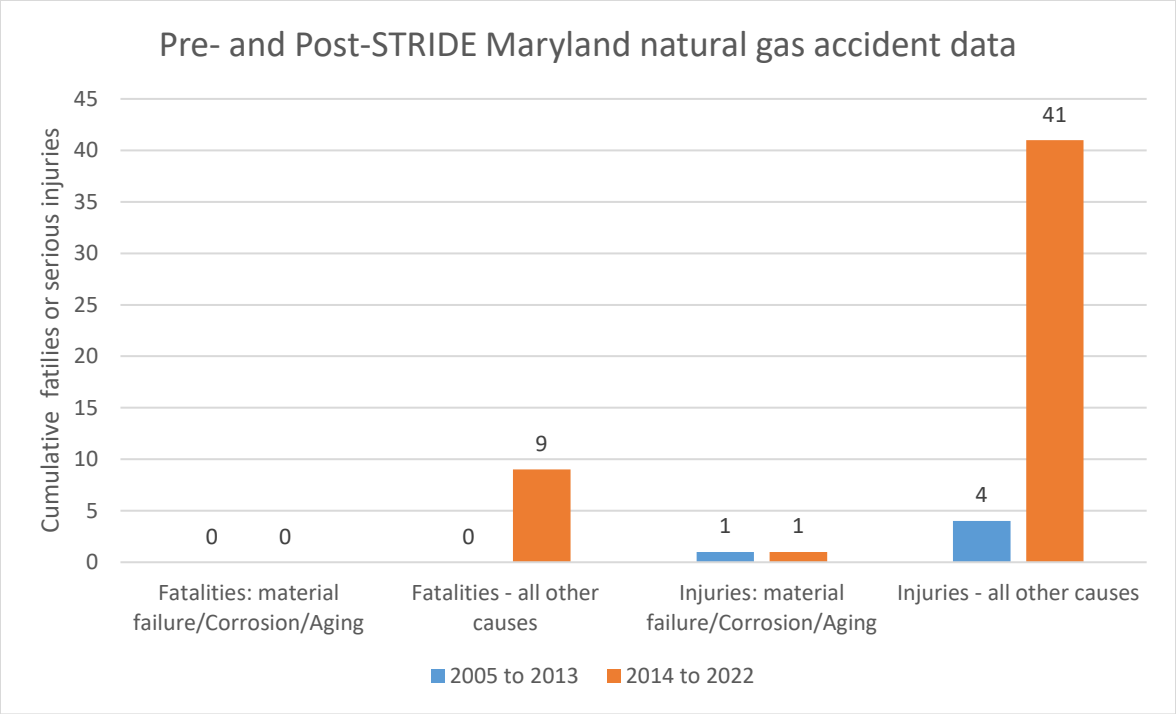

Figure 1: Fatalities and injuries due to natural gas distribution system accidents in Maryland before (2005-2013, inclusive) and after the STRIDE law (2014-2022 inclusive).

One critical reason for the lack of improvement in the safety outcomes so far as death and serious injury are concerned is that aging and material-related causes (including corrosion) are not the main causes of serious natural gas system accidents. It is not that reducing certain leaks or replacing specific equipment or repairing parts of the distribution system cannot improve safety. Rather, it is that the parts of the system that are unsafe due to these causes need to be identified and the expenditures directed to remedy those specific situations. The STRIDE Act did not require that. The result is that ratepayer burdens have increased due to the enlargement of the rate base but the desired safety result has not been achieved. That increase in the rate base also lays the foundation for larger stranded costs.

A principal reason I support the Ratepayer Protection Act is that it explicitly requires that priority be given to projects based on risk. Further, SB548 also specifically identifies leak detection and repairs as an alternative to pipeline replacement in the process of demonstrating that proposed replacements will be cost effective. This an important provision to ensure that expenditures that increase the size of the rate base are not prioritized with an eye to increasing profit but made primarily for the purpose of safety relative to expenditures that do not go into the rate base. It will, of course, be the responsibility of the Public Service Commission to ensure that.

The Ratepayer Protection Act would also remedy a large gap in the STRIDE law that was implicit in when it was passed in 2013 but became an explicit after the passage of the 2022 Climate Solutions Now Act, one of the most ambitious in the United States, and, to my knowledge, in the world. To fulfill its promise, Maryland must drastically reduce fossil-fuel-related emissions. Moreover, it must do so in a

manner that maintains energy affordability for most Marylanders and greatly improves it for the families whose energy cost burdens are already unaffordable today. This means four things for natural gas:

1. Natural gas-related emissions must be reduced by 90% (or more) by 2045;
2. New natural gas investments must be only made for safety and if no other alternative is available;
3. Natural gas infrastructure must be systematically retired so as to reduce the cost burdens on those that remain on the system; and
4. Low- and moderate-income households now using natural gas must be fully electrified with high priority to prevent their energy cost burdens from skyrocketing as natural gas rates increase.

An overall strategy is needed to harmonize safety, affordability, and climate goals. Proposals, such as that made by Baltimore Gas and Electric (in its 2023 rate case), to require household to maintain supplementary gas heating as a condition of heat pump rebates[3] will result in high costs, economically inequitable outcomes, and an entrenchment of the natural gas system in a manner that will be in conflict with achieving the targets of the Climate Solutions Now Act in an affordable manner. Such an approach will not protect the economy of the state from high costs (including stranded costs) or the financial health of its most vulnerable households. Moreover, modern heat pump technology obviates the need for supplemental gas heating even in climates considerably colder than ours.

The Ratepayer Protection Act goes a long way to remedying the gap in the STRIDE law by requiring consideration of electrification and of retirement of parts of the gas infrastructure to be considered as alternatives to gas pipeline investments. If assiduously implemented by the Public Service Commission, these provisions of the Act will help harmonize safety, affordability, and the state's climate goals. It would also help greatly if the PSC implemented the recommendation of the Office of People's Council to begin an overall proceeding on natural gas that would address the state's climate goals, create a systematic framework for deciding when pipeline replacements ae strictly needed compared to alternatives and chart a course or minimizing stranded costs.

Thank you again for giving me the opportunity to testify in support of this very crucial legislation.

[3] Makhijani 2023, op cit., pages 21-23.

SB548 Brige Dumais Testimony FAV.pdf
Uploaded by: Brige Dumais
Position: FAV

Testimony on SB548
Ratepayer Protection Action
Position: **FAV**

Mr. Chair and Members of the Committee,

My name is Brige Dumais, and I am the Political Coordinator of 1199SEIU United Healthcare Workers East. We are the largest healthcare workers union in the nation, representing 10,000 members in Maryland alone. Our union urges a **favorable** report on SB548: The Ratepayer Protection Act.

Passing this bill will can help the state be a more effective regulator and watchdog, and will codify the recommendations from the Maryland Climate Commission and the Building Energy Transition Implementation Task Force.

Ensuring that dangerous pipes are fixed and that utility companies use modern leak detection technology is important to healthcare workers because these measures will improve public health. There is a dire short staffing crisis in healthcare across all sectors in Maryland. One of the ways to mitigate this crisis is to eliminate preventable illnesses – like the numerous illnesses caused by gas leaks and burning fossil fuels. Furthermore, fixing hazardous pipelines will reduce the risk of accidents like explosions which could require people to be hospitalized.

Please vote in favor of SB548. Thank you.

In Unity,

Brige Dumais, Political Coordinator
1199SEIU UHW E., MD/DC
brigette.dumais@1199.org

SB 548_LWVMD_FAV.pdf
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Position: FAV

TESTIMONY TO THE SENATE EDUCATION, ENERGY, AND THE ENVIRONMENT COMMITTEE

SB 548 - Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)

POSITION: Support

By: Linda T. Kohn, President

Date: February 15, 2024

Since the emergence of the environment movement in the 1970's, the League of Women Voters has advocated for policies that protect our planet and promote public health. The League believes in protecting utility consumers and advancing the renewable energy transition.

The League of Women Voters of Maryland **supports** the **Ratepayer Protection Act, SB 548,** which would update the Strategic Infrastructure Development and Enhancement Plan (STRIDE) to protect Maryland utility consumers and hold utility companies accountable. This bill would have STRIDE prioritize replacing the highest risk gas pipes, and encourage cost-effective gas infrastructure spending.

Initially enacted in 2013, Maryland's STRIDE law enabled gas utilities to charge customers higher rates to cover infrastructure maintenance costs. The program was designed to maintain Maryland's aging gas infrastructure, but utility companies have used the program to profit off of unnecessary pipe replacements while ratepayers foot the bill. **SB 548** would bolster accountability for utility companies, and ensure that ratepayer dollars are being spent wisely.

The Climate Solutions Now Act of 2022 is clear that Maryland must move away from fossil fuels in order to reduce emissions 60% by 2031 and reach net-zero emissions by 2045. We must update Maryland's STRIDE law to advance the renewable energy transition. The **Ratepayer Protection Act** would align Maryland's STRIDE program with its climate goals.

The League of Women Voters of Maryland **strongly urges a favorable report on SB 548.**

SB0548_Ratepayer_Protection_Act_MLC_FAV.pdf
Uploaded by: Cecilia Plante
Position: FAV

MARYLAND LEGISLATIVE COALITION

TESTIMONY FOR SB0548
Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)

Bill Sponsor: Senator Sydnor
Committee: Education, Energy, and the Environment
Organization Submitting: Maryland Legislative Coalition
Person Submitting: Cecilia Plante, co-chair
Position: FAVORABLE

I am submitting this testimony in strong support of SB0549 on behalf of the Maryland Legislative Coalition. The Maryland Legislative Coalition is an association of activists - individuals and grassroots groups in every district in the state. We are unpaid citizen lobbyists and our Coalition supports well over 30,000 members.

This bill, if enacted, would update the Strategic Infrastructure Development and Enhancement Plan (STRIDE) statute to require gas utilities to utilize the monies from the program to do what was originally intended – fix old, leaky gas pipes. What has been happening in the decade since STRIDE was passed is that the utilities have been using the surcharge that customers were paying to expand their gas infrastructure, instead of repairing the existing infrastructure, as intended.

This is a breach of faith with the public, and has cost the public billions of dollars that the utilities have funneled into their own profits. The utilities will now be limited to invest in the replacement of aging pipes with the highest risk of failure, and to utilize less costly alternatives than replacement where appropriate.

Our members are horrified that we have to once again try to rein in the utilities from gouging the public for their own gain. We would not be opposed to having the utilities offer rebates to their customers (particularly to their low-income customers) for the monies they have mis-appropriated. We feel that this change to STRIDE is the least we can do for the people of Maryland.

We support this bill and recommend a **FAVORABLE** report in committee.

MCCC Annual Report 2023.pdf
Uploaded by: Charles E. Sydnor III
Position: FAV

MCCC

MARYLAND COMMISSION
ON CLIMATE CHANGE

2023 ANNUAL REPORT

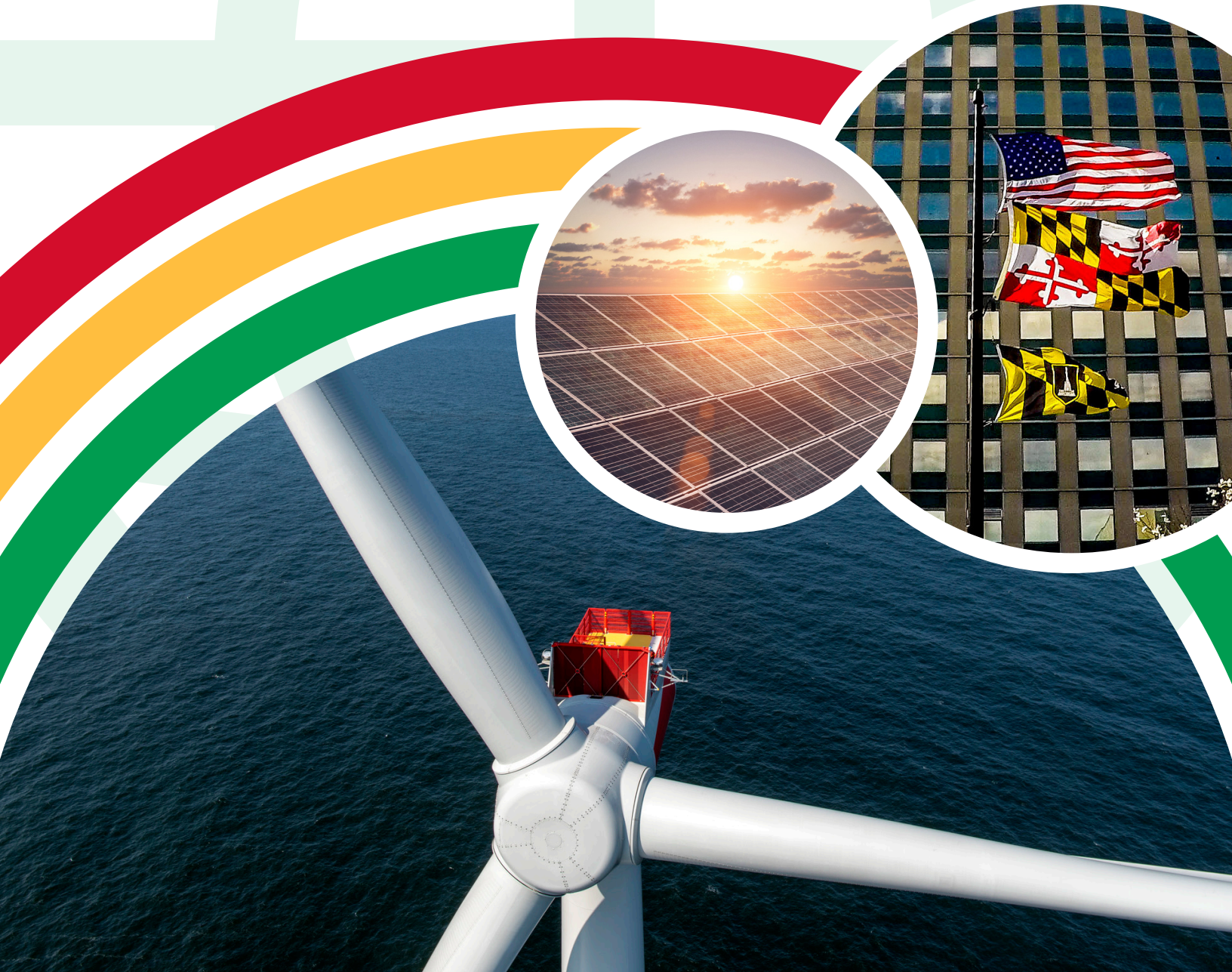

TABLE OF CONTENTS

MESSAGE FROM THE COMMISSION LEADERSHIP

On behalf of the members of the Maryland Commission on Climate Change (MCCC), we are honored to present the Commission's 2023 annual report of policy recommendations to Governor Moore and the General Assembly.

The climate crisis is upon us. Within just five years, global temperatures could breach the critical 1.5°C threshold, triggering catastrophic and irreversible consequences. This long-feared catastrophe is imminent - the time for meaningful climate action is now.

The commission is recommending dozens of solutions for action that form the bulk of this report. Our recommendations represent a thoughtful consensus from diverse expert members among the Scientific and Technical, Adaptation and Resilience, Greenhouse Gas Mitigation, and Education Communication and Outreach working groups. The recommendations provide targeted policy guidance, based on science, economics, and equity, to meet the state's climate goals.

While we celebrate immense progress made since the Commission's 2007 inception, we recognize the urgent need to do more as climate pollution worsens. As an independent, nonpartisan body, the Commission will continue leveraging our collective expertise in 2024 and beyond to drive meaningful change for Maryland's future.

The members' diligent work has positioned us for long-term success. We thank the dedicated commissioners, working group members, and supporting staff for their tireless efforts and commitment to civil discourse. It has been an impressive and satisfying process overall. We also thank engaged Marylanders for sharing concerns and ideas with members. These combined efforts have greatly enhanced our state's reputation as a leader among states in combating climate change.

Yes, the climate crisis is here, but so too is the chance to chart a new course - one where humanity rises to meet this challenge. The Commission is recommending sound policies and bold action and are confident Maryland will prevail.

Serena McIlwain
Chair

Kim Coble
Co-Chair

Anne Lindner
Co-Chair

Charmaine Brown
Co-Chair

MARYLAND COMMISSION ON CLIMATE CHANGE MEMBERS

LEADERSHIP

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Chair

Anne Lindner
Commission Co-Chair

Kim Coble
Commission Co-Chair

Charmaine Brown
Commission Co-Chair Climate Justice

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Wayne Stafford
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Chair, Critical Area Commission

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Climate Change Expert

Dr. Robyn Gilden
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Jesse Iliff Environmental
NPO Representative

Michael Powell
Business Community Representative

Jim Strong
Organized Labor Representative

Jennifer Laszlo Mizrahi
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Beth Harber
Philanthropic Representative

Anne Lindner
Business Community Representative

David Smedick
Environmental NPO Representative

Gerald Jackson
Organized Labor Representative

LOCAL GOVERNMENT APPOINTED MEMBERS

Mark Belton
Charles County Administrator,
Maryland Association of Counties

Michael Bibb
Town of St. Michael's Commissioner,
Maryland Municipal League

INTRODUCTION

HISTORY OF THE MARYLAND COMMISSION ON CLIMATE CHANGE

The Maryland Commission on Climate Change (MCCC) is an independent, statutory body established under Executive Order in 2007 (01.01.2007.07). The MCCC was charged with developing an action plan and firm timetable for mitigating and adapting to the impacts of climate change in Maryland. As a result of the work of more than 100 stakeholders and experts, the MCCC first produced a climate action plan which was the catalyst for the Greenhouse Gas Emissions Reduction Act of 2009 (GGRA of 2009).

In 2014, a second Executive Order (01.01.2014.14) expanded the scope of the MCCC and its membership to include non-state government participants. In 2015, the General Assembly codified the MCCC into law. The MCCC is charged with advising the Governor and General Assembly "on ways to mitigate the causes of, prepare for, and adapt to the consequences of climate change." Serving in an advisory capacity, the MCCC is focused on climate mitigation, but, in congruence the MCCC ensures environmental and climate justice considerations are reflected in all recommendations. Fulfilling this role, the focus is to:

- Provide independent advice on setting and meeting greenhouse gas (GHG) emission reduction targets
- Review the most up-to-date climate change science and how it informs State efforts on GHG mitigation, adaptation, resiliency, economics, and policy
- Engage with a wide range of organizations and individuals to share evidence and analysis

The MCCC delivers an annual report for the governor and the Maryland General Assembly to recommend the necessary steps to fight climate change and meet the state's climate goals. The recommendations provide important support to policymakers at the Maryland Department of Environment (MDE), which develops the plan to mitigate and adapt to the impacts of climate change, as mandated by the Climate Solutions Now Act of 2022.

CLIMATE SOLUTIONS NOW ACT

Maryland has reduced climate pollution faster than almost any other state, achieving a 30% reduction in statewide GHG emissions from 2006 levels by 2020.

In 2022, the Climate Solutions Now Act (CSNA) passed into law, giving Maryland the most ambitious GHG reduction goals of any state in the nation. The law now requires Maryland to reduce statewide GHG emissions 60% from 2006 levels by 2031 and achieve net-zero GHG emissions by 2045. MDE is responsible for developing and implementing the plan to achieve the state's GHG reduction goals.

PATHWAY REPORT

The Maryland Department of the Environment (MDE) contracted the University of Maryland (UMD) Center for Global Sustainability to evaluate options for achieving the state's requirements to reduce GHG emissions and create net economic benefits for Maryland. In June 2023, the MDE and UMD released Maryland's Climate Pathway, a report showing how a package of policies would achieve the state's goals. The report found:

- Current policies would reduce emissions 51% by 2031 - current policies include Advanced Clean Cars II, Advanced Clean Trucks, Building Energy Performance Standards, EmPOWER, Renewable Portfolio Standard, etc. and federal policies such as the Inflation Reduction Act.
- New sectoral policies would reduce emissions 56% by 2031 - new sectoral policies include Advanced Clean Fleets, Clean Power Standard (100% clean power by 2035), Zero-Emission Heating Equipment Standard, etc.
- New sectoral and economywide policies would reduce emissions 60% by 2031 - new economywide policies include an expanded cap and invest program to cover additional sources of emissions.

An economic analysis found that fully implementing the policies in Maryland's Climate Pathway would create 16,700 jobs, increase personal income by $1.5 billion, and produce up to $2.4 billion in health benefits for Marylanders from now through 2031. The health benefits include 51 lives saved and 1000 fewer cases of respiratory symptoms in 2031 alone.

The MDE and UMD hosted public listening sessions from July to September 2023, where the community was invited to be a part of policy-making decisions by attending and submitting comments. Thousands of people participated in the listening sessions and submitted written comments. Their feedback was closely reviewed.

RECOMMENDATIONS

This annual report is a key deliverable of the Commission. It offers numerous well-vetted and ambitious recommendations that are urgently needed. Some build on current policies and suggest ways in which those existing policies can be strengthened or enhanced. The MCCC is dedicated to ensuring that policy recommendations consider impacts on all Marylanders, especially those who have historically been marginalized and overburdened.

Throughout the year, the MCCC discussed many topics and determined that certain policy proposals must be delayed. Those policy proposals will be included in the working groups' 2024 work plan and will be considered by the MCCC in the coming year.

These recommendations are meant to guide Maryland policymakers on decisions related to reducing GHG emissions from all sectors of Maryland's diverse economy in accordance with the State Plan and to achieve net-zero emissions by 2045. The recommendations are further meant to influence decisions related to adaptation, resiliency, and climate and environmental justice.

ADAPTATION AND RESILIENCE WORKING GROUP (ARWG)

1. State agencies should develop metrics and incorporate Next Generation Adaptation Plan Justice, Equity, Diversity, and Inclusion priorities and milestones into their annual reports on GHG reduction and impacts of climate change. This will assist the state in identifying gaps in service to vulnerable communities to ensure no Marylander is left behind.
2. Using the NextGen Adaptation Plan as a guide, the general assembly should mandate that resiliency measures be addressed as an element in local-level comprehensive plans. The ARWG will identify data to support implementing this requirement.
3. The ARWG should form an Interagency Funding Task Force as a subgroup to implement the priorities identified in the Next Generation Adaptation Plan. This task force will specifically be working to secure funding related to adaptation and resilience goals.
4. State agencies that are represented in the ARWG should prioritize funding to support the hiring of people with cultural competency to act as local-community liaisons that serve to communicate and discuss climate change impacts in low-income communities.

EDUCATION, COMMUNICATION AND OUTREACH WORKING GROUP (ECO)

1 A Well-Funded Public Awareness Campaign

The Education, Communication and Outreach Working Group (ECO) recognizes the paramount importance of the state informing, engaging, and encouraging Marylanders to take action to achieve the state's ambitious climate goals. Participation by all Marylanders is essential.

To achieve this immense task, we strongly recommend allocating a budget to the MDE to engage in a collaborative public awareness campaign designed with professional agencies. This partnership will focus on designing and executing a comprehensive educational and multi-media marketing campaign under the MDE's supervision.

The primary objective of this campaign is to ensure that every Maryland resident is well-informed about available resources and incentives for transitioning to a clean and sustainable economy and increasing resiliency to the impacts of climate change. The campaign's scope should encompass a wide range of initiatives, including an interactive website, consumer navigators, media advertisements, billboards, and more. Its core focus areas are:

- Providing easily accessible information about federal, state, and local incentives for clean energy adoption and building resilience.
- Encouraging homeowners, landlords, and residents in single and multiple dwelling buildings to explore clean energy options without imposing additional burdens on renters or those with energy-related financial hardships.
- Raising awareness about climate, resilience, energy-efficiency, and sustainability resources and programs designed to support vulnerable communities.

To ensure the campaign's effectiveness, we propose initiating it with public opinion surveys and research to determine the most effective messaging, materials, and delivery methods. Furthermore, we emphasize the importance of making all information available in multiple languages and with accessibility to individuals with disabilities. We recommend that polling be conducted at intervals to measure the campaign's effectiveness and adjust for maximum impact. This will be particularly important in communities that have high rates of poverty and substandard housing, high unemployment rates, and health disparities.

The MDE will collaborate with other agencies, county governments, businesses and community groups serving low-income households and the elderly to inform residents on the state's 2031 Greenhouse Gas Reduction Plan, and available incentives and ways they can advance climate solutions. In addition, the state will provide resources on how Marylanders can apply for federal and state incentives related to zero-emission vehicles (ZEVs), plug-in chargers, community solar, electric retrofitting of homes and any program that is geared toward energy efficiency and climate pollution reduction.

2 **Declaring "Climate Education Week"**

The ECO recommends that the Maryland General Assembly proclaims the first week of April, coinciding with Earth Month, as "Climate Education Week." This annual declaration would provide an unique opportunity for state agencies, county and municipal governments, and private organizations to come together in celebration and education.

During Climate Education Week, schools, colleges, universities, and various institutions can host exceptional events, workshops, and activities that focus on climate education and action. The ECO is fully committed to providing abundant resources to assist all Marylanders who wish to participate in and celebrate this week, fostering a culture of climate consciousness throughout our state.

By implementing these recommendations, our state will make significant strides toward enhancing public awareness, education, and engagement in climate action, ultimately contributing to our shared goals of reducing GHG emissions and building a more equitable, sustainable, and resilient future for all Marylanders.

MITIGATION WORKING GROUP (MWG)

1 Create the following incentives to help Marylanders buy new and used electric vehicles (EVs)

		New EV	Used EV
Federal Clean Vehicle Credit Existing (included here for reference)	Incentive	**Up to $7,500** (can be a point-of-sale rebate starting in 2024)	**Up to $4,000** (can be a point-of-sale rebate starting in 2024)
	Eligibility	Individuals, businesses, and tax-exempt organizations	Individuals
	Income Limits	$300,000 for married filing jointly; $225,000 for heads of households; $150,000 for all other filers	$150,000 for married filing jointly; $112,500 for heads of households; $75,000 for all other filers
	EV Price Limits	$80,000 for a van, SUV, or pickup; $55,000 for other light-duty vehicles	$25,000 for any light-duty vehicle
Maryland Clean Vehicle Rebate *Proposed* Budget: $300M in FY25 and FY26, $365M in FY27[1]	Incentive	**$2,500** point-of-sale rebate[1] **(up to $10,000 federal + state)**	**$1,000** point-of-sale rebate[1] **(up to $5,000 federal + state)**
	Eligibility/Limits	Same as federal but all EVs under the price caps qualify (i.e. new EVs do not need to meet manufacturing requirements)	
	Implementation	The income qualification forms used for the federal incentive would also be accepted for the state incentive. The state would refund the dealer.	
Low-to-Moderate Income Bonus *Proposed* Budget: $155M per year for four years, which provides 31,000 to 51,000 incentives per year to LMI households, aligned with ACC II sales projections	Incentive	**$5,000** point-of-sale bonus rebate **(up to $15,000 fed + state + bonus)**	**$3,000** point-of-sale bonus rebate **(up to $8,000 fed + state + bonus)**
	Eligibility	Individuals only	
	Income Limits	Up to 80% of Area Median Income ($0-$90k/year for a 4-person household)	
	EV Price Limits	Same as federal	
	Implementation	The state would mail instant rebate coupons to qualified households based on the previous year's tax returns. Dealers would accept a coupon if the address printed on the coupon matches the address on the buyer's driver's license. The state would refund the dealer.	

[1] If this program cannot be fully funded, then the General Assembly should reduce the rebate levels in order to offer lower rebates to all qualified consumers.

		New EV	Used EV
Superuser Bonus *Proposed* **Budget: Pilot it with $5M in the FY25 budget and allow some funding to be used for program administration and evaluation**	**Incentive**	**$5,000** point-of-sale bonus rebate **(up to $15,000 fed + state + bonus)**	**$3,000** point-of-sale bonus rebate **(up to $8,000 fed + state + bonus)**
	Eligibility/Limits	Same as federal (if you qualify for federal, then you qualify for state)	
	Implementation	An applicant would demonstrate with a CARFAX report that they use at least 800 gallons of fuel per year based on the average miles driven over their ownership of the trade-in vehicle multiplied by the fuel efficiency (miles per gallon) of the trade-in vehicle. The state would scrap trade-in vehicles that get less than 30 miles per gallon. The state would provide trade-in vehicles that get at least 30 miles per gallon and pass Maryland vehicle safety inspection with no/minor repair work to low-income families in need.	

2 Create a Fleet Electrification Technical Assistance Program

The state should provide grants of up to $20,000 to the owners of small fleets (10-199 vehicles) to support the transition to EV fleets. Grants would be scaled based on the size and complexity of the fleet. Grants would cover up to 100% of the cost of assessing the current fleet, recommending EVs and charging solutions to fit the needs of the fleet, developing an electrification and financing plan with the fleet manager, writing applications for grant and financing solutions, and offering other support needed for implementing the plan.

The state should provide $2M in the FY25 budget for this program. The program administrator should allocate grants in each geographic region of the state, give preference to small businesses based in Maryland, and promote the Superuser Bonus to high-mileage fleets.

3 Develop EV and V2G readiness standards

The state currently requires new single-family detached homes, duplexes, and townhouses to be constructed with EV-ready (wired) or EVSE-installed (wired with charger) parking spaces. The state should require new multifamily and commercial buildings to be constructed to meet at least EV-ready standards upon completion of a study by the MEA on this topic. The state should further require and provide support for existing multifamily buildings to install EV chargers that are accessible to building tenants.

When setting standards, the state should require that the wiring installed for EV chargers be of a sufficient gauge to be ready for vehicle-to-grid (V2G) bidirectional charging. The current practice of installing 8 gauge wire for one-directional charging limits the ability of EVs with bidirectional charging to backflow power to the home/building/grid. Wire gauge standards should also be included in the requirements for projects that would be eligible to receive state funding for the EVSE installations. Installing the right gauge wire now could prevent expensive rewiring projects in the future.

4 Implement the Advanced Clean Trucks rule

The state should ensure the adoption and implementation of the Advanced Clean Trucks Rule, which requires manufacturers to increase the sale of zero-emissions trucks and school buses in Model Years 2027 through 2035.

5 Implement the Advanced Clean Cars II rule

The state should ensure the adoption and implementation of the California Advanced Clean Cars II standards, which require that an increasing percentage of new vehicles sold are zero-emissions starting in Model Year 2027.

6 Transition locally operated transit systems to zero-emissions buses

The state should enact policies requiring the transition of all locally operated transit passenger bus fleets to ZEV beginning as soon as possible with a full transition no later than 2040. The state should also offer assistance to secure grants from other sources (e.g. federal IIJA programs). The same training and worker protections contained in the state legislation governing the MTA zero-emission bus transition should apply.

7 Support and enforce the 2025 electric school bus mandate

As codified in the Climate Solutions Now Act, the state should allocate funding to the MDE Zero Emission Vehicle School Bus Transition Grant Program, prioritizing schools with the greatest needs. The state should also create a multi-agency and stakeholder working group (including but not limited to utilities, Public Service Commission (PSC), OPC, parent-teacher-student organizations, worker organizations and school districts) to support and accelerate the deployment of electric school buses by providing technical assistance for securing federal funds and other financial aid mechanisms.

8 Consider a real property tax deduction or credit for decarbonization improvements

The state should consider, in conjunction with the Building Energy Transition Implementation Task Force, a real property tax deduction or credit for decarbonization expenses and exemptions from recordation and personal property taxes for decarbonization and equipment.

9 Study using increased tax revenues to support the BEPS compliance

The state should study, in conjunction with the Building Energy Transition Implementation Task Force, using increased commercial real property and recordation tax revenues to fund building level BEPS compliance.

10 Align EV infrastructure incentives with owner/tenant responsibilities

The state should align EV infrastructure incentives with multi-dwelling units to support building owner, condo association and commercial tenant responsibility to install charging infrastructure.

11 Transition to electric MARC trains

Transition the MARC Penn Line to enable all electric operations upon Amtrak completion of the Frederick Douglass Tunnel (FDT) project, which is currently projected to be completed in 2032. MTA should include a roadmap for transitioning the MARC rolling stock fleet to zero emission technology in their update to the 2019 MARC Cornerstone Plan.

12 Allow the state to regulate GHG emissions from manufacturing

The General Assembly should make the following modifications to the statute (recommended additions to the existing statute are shown in ALL CAPS):

Md Env. Code 2-1202

(h)

(1) "Manufacturing" means the process of substantially transforming, or a substantial step in the process of substantially transforming, tangible personal property into a new and different article of tangible personal property by the use of labor or machinery.

(2) "Manufacturing," when performed by companies primarily engaged in the activities described in paragraph (1) of this subsection, includes:

(i) The operation of saw mills, grain mills, or feed mills;

(ii) The operation of machinery and equipment used to extract and process minerals, metals, or earthen materials or by-products that result from the extracting or processing; and

(iii) Research and development activities.

(3) "Manufacturing" does not include:

(i) Activities that are primarily a service;

(ii) Activities that are intellectual, artistic, or clerical in nature;

(iii) Public utility services, including gas, electric, water, and steam production services; or

(iv) Any other activity that would not commonly be considered as manufacturing.

(4) FOR THE PURPOSE OF THIS TITLE, MANUFACTURING DOES NOT INCLUDE THE MANUFACTURING OF CEMENT PRODUCTS.

Md Env. Code 2-1205

(g)

(1) Unless required by federal law or regulations or existing State law, regulations adopted by State agencies to implement a final plan may not:

(i) Require greenhouse gas emissions reductions from the State's manufacturing sector BELOW THE EMISSIONS OF THAT MANUFACTURER IN CALENDAR YEAR 2023; or

(ii) Cause a significant increase in costs to the State's manufacturing sector BEYOND THE COSTS THAT WOULD BE INCURRED BY THAT MANUFACTURER IN CALENDAR YEAR 2023.

(2) Paragraph (1) of this subsection may not be construed to exempt greenhouse gas emissions sources in the State's manufacturing sector from the obligation to comply with:

(i) Greenhouse gas emissions monitoring, recordkeeping, and reporting requirements for which the Department had existing authority under § 2-301(a) of this title on or before October 1, 2009; or

(ii) Greenhouse gas emissions reductions required of the manufacturing sector as a result of the State's implementation of the Regional Greenhouse Gas Initiative.

(h) A regulation adopted by a State agency for the purpose of reducing greenhouse gas emissions in accordance with this section may not be construed to result in a significant increase in costs to the State's manufacturing sector unless the source would not incur the cost increase but for the new regulation.

(I) SUBSECTION (G) AND (H) APPLY ONLY TO PERSONS WHO ENGAGED IN MANUFACTURING IN MARYLAND DURING CALENDAR YEAR 2023.

13 **Provide funding for EV readiness projects**

The General Assembly should establish a state property tax credit for multi-dwelling unit and commercial building owners equivalent to the documented costs incurred for expanded utility-side and customer-side infrastructure required to serve EV charging equipment.

Rationale:

- As EV charging installations create increased electric load, the likelihood increases that the utility-side and/or the customer-side infrastructure serving the host building will need to be expanded.
- Under electric utility service extension tariffs these costs are often the responsibility of the property owner that makes the service request.
- Infrastructure costs will vary depending on the requirements of each site but could be considerable. For example, expenses related to Southern California Edison's Charge Ready Pilot Program reported for 75 level 2 charging sites averaged $32,702 per site for utility-side infrastructure and $101,152 per workplace charging site for the customer-side infrastructure between the grid interconnection charging equipment.

14 **Modify the Strategic Infrastructure Development and Enhancement Plan (STRIDE) to reduce ratepayer costs and facilitate electrification**

The Public Service Commission/General Assembly should make modifications to the STRIDE program to prioritize ratepayer-supported investment on the highest risk assets – pipes that are leaking and most leak-prone – and to consider less costly alternatives to replacement, such as electrification.

- Direct gas companies to develop a risk-assessment analysis for projects prior to receiving accelerated financial treatment.
- Require justification as to why replacement is necessary compared to any less-costly alternatives, such as:
  - » leak detection and repair,
  - » targeted replacement, and
  - » electrification.
- Require heightened analysis for service locations that may be retired because of electrification.
- Establish notice requirements for customer-specific STRIDE work to allow customers time to electrify, avoiding unnecessary costly investments.
- The Public Service Commission (PSC) should require utilities to submit specific analysis on climate and rate impact of their natural gas investments and proposals - including long term rate impact and impact on stranded costs in light of the Climate Solutions Now Act.

15 **Align state spending with climate goals**

The Governor and General Assembly should ensure that state spending on energy projects promotes climate-aligned, zero-emission technologies and does not support or incentivize fossil fuel projects, systems, or infrastructure and is, at minimum, delivering at least 40% of funding to overburdened and underserved communities to be aligned with the Justice40 initiative. The Governor and General Assembly should act to ensure that grants, incentives, financing, and any other funding received from the Federal government are reserved for equitable, climate-aligned investment in clean and zero-emission technologies and infrastructure, not fossil fuel appliances, systems, or infrastructure. (Relevant MCCC recommendations from previous years: 2021 – MWG #7)

16 **End the Strategy Energy Investment Fund (SEIF) support for fossil fuel projects**

The Governor should direct the Maryland Energy Administration (MEA) to end any financial support for fossil fuel projects from the SEIF and reserve all SEIF funds for projects that are fossil fuel-free or supporting qualifying households with bill assistance in the case of Regional Greenhouse Gas Initiative (RGGI)-derived funds except in very limited and specific cases for circumstances:

1. Where electrification and other zero-emission technologies are technically infeasible given the current state of readily available technologies, or

2. For minor repairs to existing fossil fuel equipment (e.g., HVAC, water heating, etc.) that remedy health and safety related issues, or reduce energy usage and GHG emissions as long as the upgrades do not significantly extend the anticipated life of the equipment.

The MEA should work with appropriate stakeholders to ensure that households receiving direct bill assistance from the SEIF are prioritized for whole-home retrofits that deliver efficient, all electric energy retrofits as well as health and safety retrofits. (Relevant MCCC recommendations from previous years: 2020 – MWG #25 and #26; 2021 – MCCC Building Energy Transition Plan and recommendations; 2022 – reiterated Building Energy Transition Plan and recommendations)

17 **Sunset financial incentives for fossil fuel appliances/systems in EmPOWER**

The General Assembly should amend Public Utilities Article § 7–211 to require that EmPOWER work better for reducing GHG emissions with provisions to:

a) Include specific GHG reduction targets, to be established by MDE;

b) Encourage fuel-switching from fossil fuels to efficient electric appliances with incentives for heat pump space heating and hot water heating, high-efficiency electric clothes dryers, and induction ranges/stovetops starting in 2024 (as recommended by the MCCC in 2020, 2021, and 2022);

c) End incentives for fossil fuel appliances starting in 2024 (as recommended by the MCCC in 2021 and 2022); and

d) Provide audits that recommend steps for homes/buildings to become electric-ready, along with rebates for these investments.

18 **Remove municipal solid waste incineration as an eligible source in Renewable Portfolio Standard (RPS)**

Due to the energy source's contributions to the state's GHG emissions, the General Assembly should adopt legislation to remove municipal solid waste incineration as an eligible generating source from the RPS. (Relevant MCCC recommendations from previous years: 2020 – MWG #18; 2021 – reiterated via Appendix B of 2020 report)

SCIENCE AND TECHNICAL WORKING GROUP (STWG)

1 **Improve public health preparedness for the challenges posed by climate change.**

1.1 The state should develop a Ready-Set-Go framework for public health adaptation based on early warning systems leveraging subseasonal-to-seasonal (S2S) forecasts. Early health warnings with seasonal lead time should inform contingency planning, and personnel/volunteer training (Ready phase), while sub- seasonal lead time should inform resource allocation, and personnel/volunteer activation (Set phase). Finally, warnings with short range lead time (days) should inform the activation stage, including evacuation, opening of shelters, and distribution of aids (Go phase).

1.2 The state should issue a report on the background, status, and needs associated with the Centers for Disease Control and Prevention (CDC) funding for the Climate and Health Program. Additionally, the state should compensate for the loss of the CDC funding for the Climate and Health program within the Maryland Department of Health to enhance Maryland's public health preparedness to climate change.

1.3 The Maryland Climate and Health Profile Report, published in 2016, should be updated by the Maryland Department of Health and Mental Hygiene in collaboration with university expertise every five years to accommodate more recent scientific evidence and provide relevant future projections of health burden in Maryland, with a particular emphasis on climate justice by implementing meaningful community engagement.

2 **Establish a Climate and Equity Innovation Fund.**

While Maryland's climate goals now lead the nation in terms of carbon reduction policy, it does not match those goals with investment in the technology development necessary to achieve those goals like is done in states such as California and New York. Unlike biotech and cyber there are no energy specific programs/priorities in the Department of Commerce.

In fact, Maryland is dead last in the nation when it comes to diversity of how it spends its research funding with 85% of that going to biotech.

Biotech and cyber are now well-established contributors to the Maryland economy. Given the preeminence of Maryland's energy research, as demonstrated by its leadership in obtaining US Department of Energy research awards, it's time to create similar programs for energy from early-stage seed funding through tax incentives for established companies.

To facilitate and incentivize the translation of promising viable technologies that can be scaled, it is recommended that a Climate and Equity Innovation Fund be established. This fund should be commensurate with the magnitude of the challenge and comparable on a percentage of state GDP to other climate conscious states like California and New York. This competitive and peer-reviewed program would accelerate Maryland's research leadership to become a national leader in climate technology innovation through partnerships and supporting workforce development programs that focus on creativity, diversity, and equity. The program would be managed by existing accelerator programs, for energy and climate technology the Maryland Energy Innovation Institute (MEI2) in

partnership with Maryland Energy Innovation Accelerator (MEIA) and Maryland Clean Energy Center (MCEC) as previously established by Maryland legislation, and the Maryland Sea Grant (MDSG) for adaptation. These programs have a demonstrated history of managing such competitive programs on behalf of Maryland and moreover providing a greater than 10X return on investment in terms of bringing federal and private investment to the State of Maryland.

3 **Inclusivity of All Marylanders**

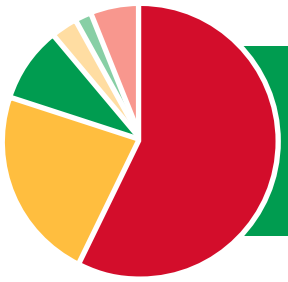
Populations that are most vulnerable to the impacts of climate change include individuals at the lower income levels, minorities, immigrants where English is their second language, and those with disabilities, among others. The reasons for these disparities vary but include the inability to financially afford adaptation strategies, the lack of access to information, and inequitable distribution and access to programs from governments, non-profits, and the private sector. Consequences of these vulnerabilities can exacerbate health disparities. Therefore, prioritization and support should be given to MDE's current effort to identify communities disproportionately affected by climate impacts and to ensure they are adequately accounted for and included in mitigation and adaptation planning. This is an integral part of the equity and underserved and overburdened community underpinnings of the 2022 Climate Solutions Now Act and the State's response to climate change.

UPDATE ON THE SCIENCE

Globally, July 2023 was the hottest month on record, sea ice was the lowest on record and for the fourth consecutive month, the global ocean surface temperature hit a record high. July was estimated to have been around 1.5°C warmer than the pre-industrial average for 1850-1900, according to the EU Copernicus Climate Change Service, operated by the European Centre for Medium Range Weather Forecasting. July was 0.33°C warmer than the previous warmest month, July 2019.

The UN World Meteorological Organization1 reiterated that there is a 66 per cent chance that the 1.5oC threshold above the pre-industrial value will be exceeded in the next five years but this is likely a "temporary" change.

According to The Fifth National Climate Assessment (NCA5), annual US greenhouse gas (GHG) emissions fell by 12% from 2005 to 2019 and this was driven by changes in electricity generation and a 40% reduction in emissions from this sector. The transportation sector is the largest GHG emitter since 2017 (Figure 1).[2]



Between 1990 and 2021, transportation greenhouse gas emissions rose by about 19%. The rise is mainly attributed to an increase in vehicle miles traveled by passenger cars and all truck types.

58% Passenger cars and light-duty trucks

23% Medium- and heavy-duty trucks

9% Aircraft

3% Ships and boats

2% Rail

6% Other

Figure 1. Greenhouse gas emissions from the US domestic transportation sector.[2] [Source Fifth National Climate Assessment]

Climate change threats to public health include air quality, extreme heat, extreme weather events, vector- and food-borne illness, food insecurity, sea level rise, and drinking water contamination.[3] The University of Maryland extension weather outlook reports a 30-day outlook for temperatures in September 2023 is 40-50% chance of above normal temperatures for the entire state, with drought conditions persisting. However, deep emissions cuts are expected to have immediate health and economic benefits and "the benefits of deep emissions cuts for current and future generations are expected to far outweigh the costs."[2]

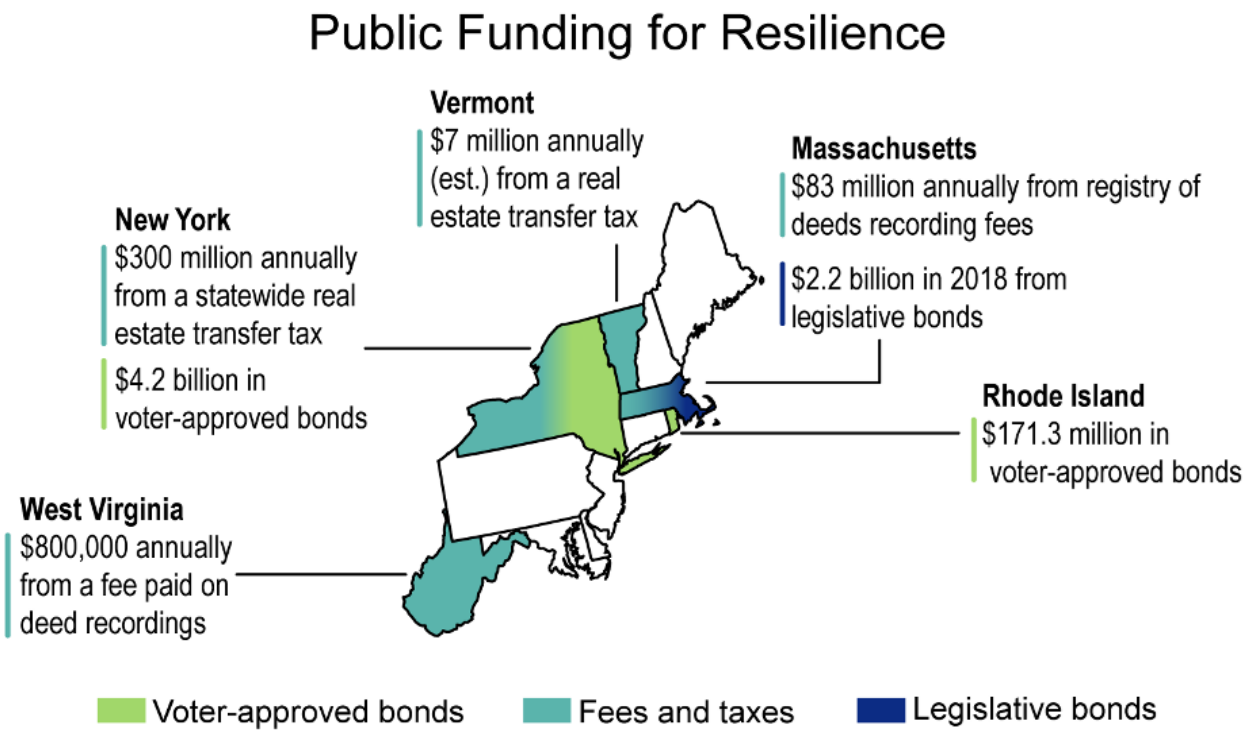


Figure 2. Examples of mechanisms from the northeastern states to fund resilience efforts.[2] [Source Fifth National Climate Assessment]

GLOBAL EMISSIONS AND PROGRESS TOWARD NATIONALLY DETERMINED CONTRIBUTIONS (NDCs)

During the 2013-22 decade, global warming reached 1.14 [0.9 to 1.4] °C and 1.26 [1.0 to 1.6] °C in 2022. This rate of warming of 0.2 °C per decade is unprecedented and is caused by a combination of greenhouse gas emissions being at an all-time high of 57.4 GtCO2e over the last decade (Figure 3), as well as reductions in the strength of aerosol cooling.4,6

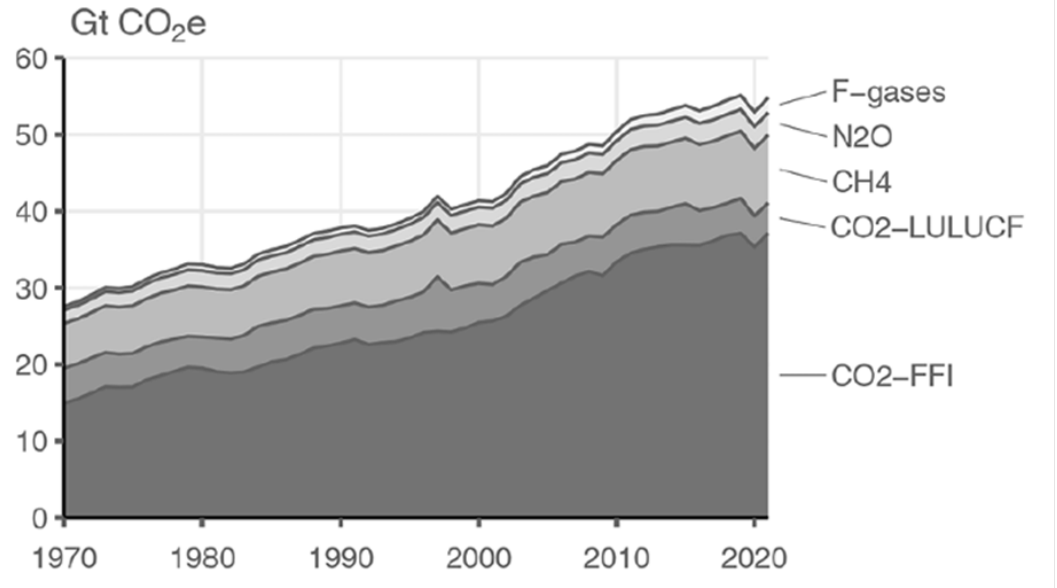


Figure 3. Global Total Greenhouse Gas Emissions. [Source: Forster et al., 2023][4]

Climate Watch monitors the progress of countries toward their Nationally Determined Contributions (NDCs) made in the 2015 Paris Climate Agreement. Climate Watch has reported that 176 countries, representing 93.9% of global emissions, have submitted new or updated NDCs and 107 countries (80.6% of global emissions) have announced total emissions reductions beyond their initial NDC.[5] According to the UN Emissions Gap Report 2023, successfully implementing all the current unconditional NDCs would put the world on track to limit temperature rise to 2.9°C so additional cuts of 14 GtCO2e are required for only 2°C of warming.[6] Although annual US GHG emissions fell 12% between 2005 and 2019, current polices in the United States will not meet the unconditional NDC GHG emissions pledge, with a gap of 19% GHG emissions.[2,6] However, every amount of warming that is avoided, reduces the risks and impacts of climate change. The first Global Stocktake will occur at COP28 and will inform the next round of NDCs.[6] There is evidence that increases in greenhouse gas emissions are slowing, and depending on societal choices, this could be the harbinger of a change in human influence on climate and highlights the importance of Maryland's leadership in climate action.

WEATHER ATTRIBUTION

2023 has witnessed a further maturing of the nascent field of weather attribution, or the science of directly linking extreme weather events as a consequence of global warming and the unabated increase in greenhouse gas emissions across the world. Attribution science has allowed researchers to determine (with uncertainty quantified) how much climate change is contributing to the severity of weather events.[7] For example, estimates show that climate change increased the rainfall from Hurricane Harvey in 2017 by 15-20%.[2] This quantification of human influence is helping communicate risks more effectively and is informing public policy related to adaptation and mitigation.

There are numerous examples relevant to Maryland. The flash flooding of Ellicott City (2016 and 2018) and New York City (September 29, 2023) are reminders of the increasing frequency and intensity of extreme rainfall events. The increasing incidence of wildfires (Figure 4) also pose threats to the forests of Maryland and to human health due to down-winding effects of smoke blown from fires in other regions.

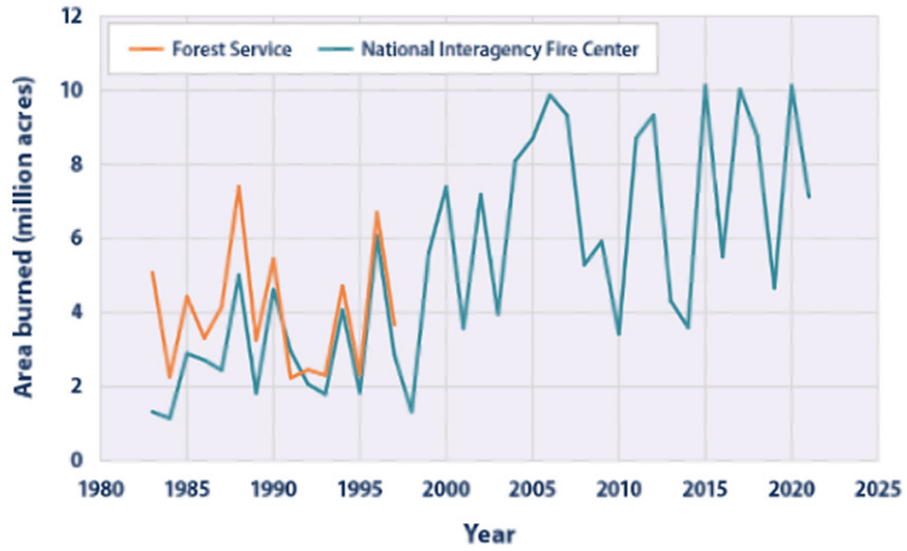


Figure 4. Wildfire Extent in the United States, 1983-2021.

Sources: NIFC (National Interagency Fire Center). 2022. Total wildland fires and acres (1983-2022) and US EPA Climate Indicators (https://www.epa.gov/climate-indicators/climate-change-indicators-wildfires).

In 2023, more than twice as many acres in Canada have burned than the previous record year. Climate change made the dangerous fire weather conditions in Quebec at least twice as likely.[8] Prevailing winds pushed the smoke plume through eastern states resulting in the National Weather Service issuing a Code RED Air Quality Alert with some school districts in Maryland and Washington DC closing on June 8-9, 2023.

Weather attribution research is refining the understanding of the types of conditions Maryland can expect to experience in coming decades. It also reinforces the critical importance of the state's progress being made to protect Marylanders and as an example to other states and countries for what is feasible economically and socially. Some recent but not comprehensive scientific findings of relevance to Maryland are maintained on the Scientific and Technical Working Group (STWG) website. In this summary we focus on heat impact to communities and the 2023 projections of sea-level rise for Maryland.

HEAT IMPACTS

July 2023 was confirmed by the NOAA, NASA and the EU Copernicus Climate Change Service as the hottest month on record and likely the highest in the past 120,000 years as well as having the highest-ever ocean surface temperatures since records began.[9]

Goodell summarized how heat-related deaths have been vastly under-counted and this hidden menace will continue to plague communities as heat waves increase in frequency, duration, and intensity as was experienced across southern Europe and regions of north America in 2023.[10]

Although Maryland did not experience the same level of extreme heat records as has been experienced in other parts of the US - the risks are clear. In 2023, 4 total heat advisories have been issued as of September 6th, which already exceeds the total of 3 in 2022. From August 29th-September 4th, 312 heat related illness complaints were reported in emergency departments in urgent care in Maryland (Figure 5).

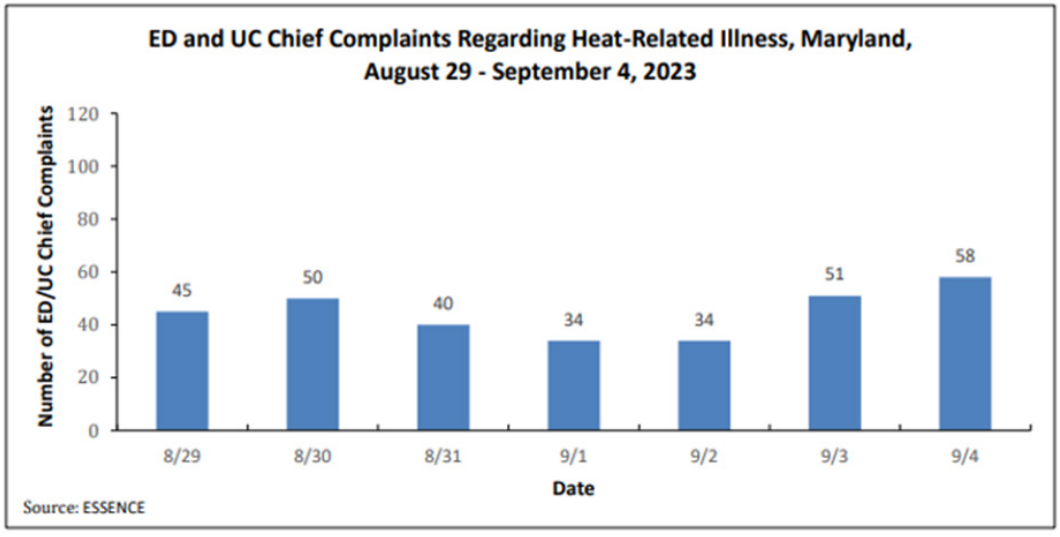


Figure 5. Reported Heat-Related Illness in Maryland During the Heatwave of August 29-September 4, 2023.

SEA-LEVEL PROJECTIONS FOR MARYLAND

As directed by the Maryland Commission on Climate Change Act, the University of Maryland Center for Environmental Science (UMCES) completed an update of the 2018 projections based on the latest scientific assessments.[11] A 14-member Sea Level Rise Expert Group oversaw the development of the report, acting under the auspices of the MCCC Scientific and Technical Working Group. Communication with the Adaptation and Resiliency Working Group was maintained throughout the process. The sea-level rise for which Maryland should plan during the latter half of the century and beyond depends on the degree to which global society limits its greenhouse gas emissions. Sea-level projections developed in the IPCC's most recent assessment that assume that only current national commitments for emission reductions would be met are recommended as the primary planning scenario for beyond the next 25 years. These projections were customized for locations in Maryland by factoring in land subsidence, ocean processes and the effects of polar ice sheet melting. For the near-term until 2050, statistical extrapolations of trends from tide gauge and satellite observations provide important guidance.

These extrapolations suggest that it is prudent to plan for mean sea-level to rise between 1 and 1.6 feet (relative to the land) from a 2005 starting point. The IPCC "current commitments" projections put the likely range at 2.0 to 3.5 feet by 2100 - two to three times the sea-level rise experienced during the 20th century. Even with unexpectedly rapid polar ice loss, sea-level is very unlikely to exceed 4.9 feet this century. The report suggests ways in which the probability distributions of these projections can be used as reference points in planning for both the natural and build environment.

MONITORING AND MODELING GHG EMISSIONS IN MARYLAND

Measurements and numerical models of GHG concentrations and emissions, supported primarily by UMD, NIST, and NOAA, have helped refine inventories and identify local hot spots in GHGs and associated short-lived pollutants – linking climate and environmental justice. These studies confirm the importance of methane in Maryland's climate impact and that traditional inventory methods underestimate methane emissions. The MDE's new methane inventories better match research grade determinations, although substantial uncertainty remains especially in emissions from the natural gas delivery system and landfills.

Recent research indicates that methane emissions from Baltimore and Washington have decreased over the past few years although the cause remains unproven. Leak rates were observed to scale with seasonal gas usage producing much higher emissions in winter than summer. The main sources in urban areas are natural gas infrastructure and landfills; on the rural eastern shore wetland emissions play a major role. Out of state sources contributing to methane in Maryland include the Marcellus gas plant and concentrated swine operations in North Carolina.

Measurements from mobile platforms continue to identify leaks and other point sources to refine inventories and suggest targets for remediation. Although replacement of the old natural gas infrastructure is a contentious issue, existing leaks are a hazard in need of immediate attention. Plans to make a Maryland landfill a testbed for methane control are underway. This will provide direct flux determination to refine models and evaluate and then implement control strategies.

The urban heat island effect, and spatially-biased emissions conspire to make many of Maryland's most vulnerable communities hot spots for not only pollution emissions but several environmental problems such as poor air and water quality and heat waves.

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[6] United Nations Environment Programme (2023). Executive summary. In Emissions Gap Report 2023: Broken Record – Temperatures hit new highs, yet world fails to cut emissions (again). Nairobi. https://doi.org/10.59117/20.500.11822/43922.

[7] Perkins-Kirkpatrick et al. 2022. On the attribution of the impacts of extreme weather events to anthropogenic climate change. Environmental Research Letters, 17 024009

[8] https://www.worldweatherattribution.org

[9] https://public.wmo.int/en/media/news/july-2023-confirmed-hottest-month-record

[10] Goodell, J., 2023. The Heat will Kill you First: Life and Death on a Scorched Planet. Little, Brown and Company. 400p. July 11,2023. ISBN: 978031649757

[11] https://www.umces.edu/sites/default/files/Maryland%20Sea-Level%20Rise%20Projections%202023%20report.pdf

[12] https://mde.maryland.gov/programs/air/ClimateChange/Documents/MARYLANDS%20PATHWAY%20REPORT%20AND%202031%20GHG%20PLAN/Maryland%27s%20Climate%20Pathway%20Report.pdf

[13] https://2019-dsd.maryland.gov/regulations/Pages/26.11.42.00.aspx

[14] https://www.scsengineers.com/mde-finalizes-new-maryland-landfill-air-regulation

ATTACHMENT

The MDE commissioned an analysis conducted by the UMD School of Public Policy to determine the total amount of State money spent on measures to reduce GHGs during the preceding fiscal year and the percentage of that funding that benefited disproportionately affected communities.
The report is available here: https://mde.maryland.gov/programs/air/ClimateChange/MCCC/Documents/2023%20MCCC%20Annual%20Report%20attachment_GHG%20Mitigation%20Spending.pdf

SB548 Final Testimony.pdf
Uploaded by: Charles E. Sydnor III
Position: FAV

CHARLES E. SYDNOR III, ESQ.
Legislative District 44
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DEPUTY MAJORITY WHIP

Judicial Proceedings Committee
Executive Nominations Committee

Joint Committees
Administrative, Executive, and Legislative Review
Children, Youth, and Families
Senate Chair, Legislative Ethics

Chair
Baltimore County Senate Delegation

THE SENATE OF MARYLAND
ANNAPOLIS, MARYLAND 21401

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Testimony Regarding SB 548
Natural Gas - Strategic Infrastructure Development and Enhancement
(Ratepayer Protection Act)
Before the Education, Energy, and Environment Committee
On February 15, 2024

Good afternoon, Chairman Feldman, and members of Education, Energy, and Environment Committee,

I am here in enthusiastic support of Senate Bill 548, The Ratepayer Protection Act, ("SB 548") which seeks to make modifications to the Strategic Infrastructure Development and Enhancement ("STRIDE") law.

By way of background, the STRIDE law was enacted in 2013 aimed to encourage gas utilities to replace aging gas infrastructure by allowing accelerated recovery and profit on infrastructure investment costs. The program functions by permitting the Public Service Commission ("PSC") to allow gas utilities to include a monthly surcharge (of up to $2) on ratepayers' utility bills for early recovery of the estimated costs of such projects.

The STRIDE law was enacted before significant advances in pipe leak detection technologies were commercially viable, before technological advances in electric appliances made them competitive with gas appliances, and before the State of Maryland created policies promoting building electrification, such as the Climate Solutions Now Act. Similarly, under the leadership of this committee, our state has undertaken major steps towards reducing our state's overall greenhouse gas emissions 60% by 2031. In keeping with these goals and the developing climate in which they exist, in its 2023 Annual Report, the Maryland Commission on Climate Change ("MCCC") called for modifications to the 2013 STRIDE law to allow for reduced ratepayer costs and to align gas infrastructure spending with state climate policy and building electrification.[1] The bill before you

[1] https://mde.maryland.gov/programs/air/ClimateChange/MCCC/Documents/MCCC%20Annual%20Report%202023/MCCC%20Annual%20Report%202023.pdf

today encompasses these recommendations and adapts STRIDE to an energy and climate landscape that is much different than the landscape it was designed to address over a decade ago.

Senate Bill 548 is not a repeal of STRIDE. Instead, SB 548 makes modest changes to the current law to ensure that STRIDE work is only billed to utility customers where necessary and appropriate to ensure the safety of the gas system and provide consistency with state climate policy.

Under the current law, the PSC reviews STRIDE plans based on whether they are: 1) reasonable and prudent, and 2) designed to improve public safety or infrastructure reliability over the short and long term. Senate Bill 548 maintains these factors while and requires the PSC to analyze whether the investments being made are:

- required to improve the **safety of the gas system after consideration of alternatives** to replacement;
- **consistent with the need to reduce the use of natural gas in light of state climate policy**; and
- consistent with the projected availability and **cost-effectiveness** of **natural gas alternatives**.

These are common sense requirements that will protect customers from unnecessary investments and the risk that widely accepted projected declines in gas consumption will result in gas pipes that become obsolete long before they are fully paid for.

In conclusion, SB 548 serves to align the STRIDE program with Maryland's climate policy goals and create more consumer protection guard rails so that utility customers are not charged unnecessarily. The more heavily we invest in replacing older gas infrastructure with costly brand-new gas infrastructure, rather than allowing for cost effective alternatives to replacement, the more customer rates go up unnecessarily and fewer dollars available to support clean alternatives that support Maryland's climate goals.

Senate Bill 548 requires consideration of these climate and consumer protection goals before new infrastructure is created, while still allowing the new infrastructure if gas utilities meet these considerations before the PSC. In that way it is the best of both worlds, creating a more thoughtful regime that reflects how the energy landscape has changed over the last 11 years, while still allowing utilities accelerated cost recovery for the core activity envisioned in the original STRIDE law. As such, I ask that you support this legislation and report SB 548 favorably out of this august committee.

1 - SB0548 OPC Testimony.pdf

Uploaded by: David Lapp

Position: FAV

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CHIEF OPERATING OFFICER

BILL NO.:	Senate Bill 0548 – Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)
COMMITTEE:	Education, Energy, and the Environment Committee
HEARING DATE:	February 15, 2024
SPONSOR:	Senator Sydnor
POSITION:	Favorable

****

The Office of People's Counsel ("OPC") respectfully requests a favorable Committee report on SB 548, the Ratepayer Protection Act. SB 548 seeks to enact the modest but important changes to the Strategic Infrastructure Development and Enhancement ("STRIDE") law recommended by the Maryland Commission on Climate Change and the Building Energy Transition Implementation Task Force.

Background

Enacted in 2013, the STRIDE law[1] encourages gas utilities to replace aging gas infrastructure by allowing for accelerated financial recovery of spending on replacement. Through a surcharge on customer bills, gas utilities recover the estimated costs of projects while the company is carrying them out. This gives the utilities an easier and faster method of recovering the costs of gas infrastructure spending from customers.

Since the STRIDE law was enacted more than ten years ago, advances in technology and climate policy have begun driving the shift toward electrification and

[1] 2013 Md. Laws Ch. 161 (S.B. 8) (codified at Md. Code Ann. Pub. Util. ("PUA") § 4-210).

away from natural gas consumption. Technological advances have made electric appliances competitive alternatives to gas appliances,[2] and both the federal government and the State of Maryland have adopted policies—such as the Inflation Reduction Act and the Climate Solutions Now Act—that promote building electrification. Together, these forces will lead to a diminished role for natural gas, calling into question the wisdom of investing so heavily in wholesale replacement of the gas system.

And yet, Maryland's gas utilities continue to spend more than $1.75 million each day—hundreds of millions a year—on gas infrastructure replacement. As the table below shows, to date, Maryland's gas utilities have spent more than $2 billion on new gas infrastructure under the STRIDE program. By 2045, they are projected to spend another nearly $8 billion to complete their programs, and ratepayers will have paid over $14 billion. If allowed to continue unchecked, ratepayers will be expected to pay a total of more than $40 billion by 2100.

$Millions	Utility Investments		Costs to Ratepayers	
	2014-2023	2014-2043/45	2014-2045	2014-2100
Columbia	$ 171.02	$ 724.70	$ 1,191.76	$ 3,453.54
WGL	$ 598.66	$ 4,766.50	$ 5,574.38	$ 22,064.38
BGE	$ 1,326.67	$ 4,309.76	$ 7,278.31	$ 17,249.88
Total	**$ 2,096.35**	**$ 9,800.97**	**$ 14,044.45**	**$ 42,767.80**

[2] For example, a 2021 study from the Lawrence Berkeley National Laboratory found that, on average nationally, a new gas furnace and AC have a combined installed cost of almost $11,000 for residential retrofits. In contrast, the installed cost of heat pumps is substantially less, at just over $8,000. Less, B. D., et al. 2021. *The Cost of Decarbonization and Energy Upgrade Retrofits for US Homes*, Lawrence Berkeley National Laboratory, https://escholarship.org/uc/item/0818n68p. In addition to cheaper up-front costs, heat pumps serve as both the heating and cooling device for a home, requiring a household to only maintain one system. As the Maryland Department of the Environment's recent Climate Pollution Reduction Plan confirmed, there is no need for a backup home heating source,"[m]odern heat pumps are more than capable of meeting 100% of the heating demand of Maryland buildings." *Maryland's Climate Pollution Reduction Plan* (Dec. 28, 2023), at p. 39.

Comments

Recognizing the need to modernize the STRIDE program, the Maryland Commission on Climate Change recommended in its 2023 Annual Report that the General Assembly make modest modifications to the law to reduce ratepayer costs and facilitate electrification.[3] The recommendation was approved by an overwhelming vote, with broad and universal support, including from cabinet agencies, and opposed only by fossil fuel interests. The Building Energy Transition Implementation Task Force made a similar recommendation in its recent final report.[4]

As explained below and in the attached fact sheet, SB 548 seeks to enact these recommendations by making three modest changes to the STRIDE statute to require:

1. prioritizing replacement of aging pipes based on their risk to the public;
2. using alternatives to replacement, including leak detection and repair and targeted retirement in conjunction with electrification, where less costly; and
3. providing sufficient notice to customers affected by proposed projects to allow them the opportunity to electrify.

I. Prioritizing replacement based on risk

The intent of the STRIDE program is to accelerate the replacement of aging gas infrastructure in order to improve public safety and reliability, but as currently written, the STRIDE statute does not add any safety requirements to the gas utilities' core obligation to provide safe and reliable service.[5] Although the statute requires that an eligible project be "designed to improve public safety or infrastructure reliability," it includes no requirement for the utilities to target replacing the pipes that pose the greatest safety risk. Under the existing law, gas utilities can determine which work to complete through STRIDE based on non-risk related factors, including annual mileage goals, paving density, location, and government coordination. This allows gas utilities to prioritize broader goals of system replacement over maximizing system risk reduction.

[3] Md. Comm'n on Climate Change, *2023 Annual Report*, Mitigation Working Group Recommendation #14, at p. 14, *available at* https://mde.maryland.gov/programs/Air/ClimateChange/MCCC/Pages/MCCCReports.aspx.
[4] *The Building Energy Transition Implementation Task Force Final Report* (Jan. 24, 2024) at p. 15, *available at* https://mde.maryland.gov/programs/air/ClimateChange/Pages/BETITF.aspx.
[5] PUA § 5-303. This obligation is part of the extensive regulation companies are subject to in exchange for the government's grant of an exclusive franchise to provide service in a particular area.

The Ratepayer Protection Act seeks to fulfill the statute's intent by requiring that a gas utility "select[] and give[] priority to projects based on risk to the public and cost-effectiveness."[6]

II. Using alternatives to replacement where less costly

As currently written, the STRIDE statute does not require gas utilities to consider reasonable alternatives to replacement. In recent cases before the PSC, OPC and others have unsuccessfully argued that this should be part of any prudency determination.[7] While noting the concern that replacement may not be aligned with the likelihood of diminished gas throughput as the State moves toward greater reliance on renewable energy and away from GHG-generating fuel sources," the PSC has declined to require more in the absence of further legislative action, stating in a recent decision: "Until the General Assembly enacts changes to the STRIDE statute to further refine the allowable investments in the natural gas infrastructure in light of the potential for diminished gas service, the Commission is limited in available options regarding proposed plans."[8]

Not only does the existing STRIDE law fail to explicitly require utilities to consider less-costly alternatives to replacement, it also incentivizes replacement without consideration of repair. The STRIDE statute allows gas utilities to receive accelerated cost recovery for spending on capital assets such as pipes and other gas infrastructure, but not for spending on operation and maintenance such as leak detection and repair. This perverse incentive is exacerbated by the fact that utility profits are directly tied to spending on capital assets. Utilities finance the spending and collect the costs—plus profit—from customers over many decades. The more money the utilities spend on capital assets, the more profit they stand to earn, which incentivizes full pipe replacement, even if there is a more cost-effective alternative, such as leak detection and repair.

The Ratepayer Protection Act would require gas utilities to consider alternatives to replacement by requiring that a gas utility include in its STRIDE plan "an analysis that compares the costs of proposed replacement projects with alternatives to replacement, including: (1) leak detection and repair; and (2) the targeted retirement or abandonment of portions of the gas systems in conjunction with electrification;" and providing that to

[6] *See* §§ 4-210(d)(2)(v) & 4-210(e)(3)(iii).
[7] *See e.g.,* PSC Case No. 9708, OPC Initial Brief at p. 14, maillog # 305654 (Oct. 16, 2023). All PSC filings are available by searching the PSC's website by maillog #, https://webpsc.psc.state.md.us/DMS/.
[8] PSC Case No. 9708, PSC Order No. 90941, Full Commission Memorandum on Decision on Stride Appeals, maillog # 307037 (Jan. 10, 2024), at p. 12.

approve a plan, the Commission must find that the projects are "required to improve the safety of the gas system *after consideration of alternatives to replacement*." [9]

III. Providing notice to customers

At present, the STRIDE statute includes no requirement for a gas utility to provide notice to affected customers before proceeding with costly infrastructure replacements. Given Maryland's climate policy goals and the numerous incentives for customers to electrify, a gas utility should be required to notify customers far enough in advance to allow customers time to consider electrifying their appliances and prevent stranded costs. It can take many months for customers to investigate incentive programs, contact and select contractors, apply for loans, and wait for the contractor to do the work.

The lack of sufficiently advanced notice creates further risk of stranded assets. For example, imagine a current gas customer who is planning to electrify but has not yet started the process, receives 30 days' notice of a service upgrade. The customer still needs gas now, so they have to go through with the service upgrade. But the customer electrifies two years later, rendering the service, meter, regulator, and other associated equipment useless.

To provide customers with ample prior notice to to electrify and turn down the service upgrade, rather than wasting resources on replacing a soon-to-be unused service, the Ratepayer Protection Act would require that a gas utility include in its STRIDE plan "a plan for notifying customers affected by proposed projects at least 2 years in advance of construction to allow customers the opportunity to electrify."

Recommendation

SB548 does not repeal the STRIDE statute. It does not prevent gas utilities from making necessary capital investments to ensure safety and reliability. It does not prohibit gas utilities from receiving accelerated cost recovery for qualifying investments. SB 548 simply requires gas utilities, and the PSC, to take common-sense steps to ensure that these costly investments target the greatest safety risks and align with State climate policy. For these reasons, OPC requests a favorable Committee report on SB 548.

[9] *See* § 4-210(d)(2)(vi).

Ratepayer Protection Act (STRIDE REFORM) FS 2024 (

Uploaded by: Emily Scarr

Position: FAV

The Ratepayer Protection Act: STRIDE Reform

SB548/HB731 Senator Sydnor and Delegate Embry

The STRIDE law does not require utilities to prioritize gas pipe replacement based on the severity of safety risks.

What is S.T.R.I.D.E?

Thousands of miles of underground gas pipelines, some of which are more than 100 years old in places like Baltimore City, provide heat and power to just under half of Maryland homes.

Worried about the need to maintain this aging system, the state legislature enacted the Strategic Infrastructure Development and Enhancement Plan (STRIDE) law in 2013. The law allows the gas utilities to charge customers more every month so they can ensure the safety of our gas system.

The cost of STRIDE

According to the Office of the People's Counsel, Maryland gas utilities have spent more than two billion dollars on new gas infrastructure under the STRIDE program since 2014, and will spend nearly 10 billion total to complete the program.

The utilities expect ratepayers to pay for this spending and profits for utilities over many decades, adding more than 40 billion dollars to utility bills over the life of the program.

STRIDE's impact

Putting in new pipes is more profitable for the utilities than making repairs.

Under STRIDE, gas utilities are allowed to add an additional $2 surcharge on top of monthly utility bills to go towards infrastructure spending.

The existence of the STRIDE law has made it hard for regulators to rein in this spending, and it is driving up gas bills short and long term.

Customers pay for these gas pipe replacement projects like a mortgage with high interest rates:

- Our $2 is just a small fraction of the costs that are locked into charges for decades to come.
- The utilities install new pipes and related equipment, and customers pay for all that spending plus a hefty return, including profits, of about 9% after taxes for the lifetime of the equipment.

Maryland PIRG

Emily Scarr, Maryland PIRG Director
859-221-4213
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In 2023 BGE tried to force Baltimore homeowners to install new external gas regulators, which are more expensive and not always safer than internal regulators.

Case Study: BGE Regulators
This summer BGE threatened to turn off gas for customers who refused new external gas regulators. The work to install the external regulators is more expensive than replacing the internal regulators, and the PSC later ruled that customers should have the option of internal or external.

Environmental concerns

Marylanders need gas utilities to maintain the safety of the system while we still need it, but overspending on new infrastructure doesn't make sense for our climate goals or for ratepayers.

Maryland's Climate Solutions Now Act of 2022 directs the state to shift away from fossil fuels to power our homes. While the shift won't happen overnight, we should be thoughtful about our approach to new gas infrastructure.

Every dollar we spend on new gas infrastructure is a dollar not spent on clean, renewable energy.

What the bill does:

The Ratepayer Protection Act modifies the STRIDE program to prioritize highest risk pipes.

This bill does not repeal the STRIDE program.

The bill requires gas utilities to:

- Use modern leak detection technology when cost effective (that wasn't available a decade ago);
- Use a "fix it first" approach to gas infrastructure instead of replacement when cost effective;
- Give gas customers 2 years notice before work in their home so they have time to plan; and,
- Generally ensure gas infrastructure spending is cost effective.

This commonsense reform is an important step in ensuring ratepayer dollars are spent prudently and will enable state regulators to more effectively watchdog gas utilities' spending plans.

The Ratepayer Protection Act codifies recommendations from the Maryland Commission on Climate Change and the Building Energy Transition Implementation Task Force.

SB548_RatepayerProtectionAct_MDPIRG_FAV.pdf
Uploaded by: Emily Scarr
Position: FAV

Maryland PIRG

SB548: Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)
Education, Energy, and the Environment
February 15, 2024
Emily Scarr, Maryland PIRG
Favorable

Maryland PIRG is a state based, small donor funded public interest advocacy organization with grassroots members across the state. We work to find common ground around common sense solutions that will help ensure a healthier, safer, more secure future.

Maryland PIRG. enthusiastically supports the Ratepayer Protection Act (SB548/HB73) . This bill is one of Maryland PIRG's top priorities for 2024, and we thank Sen. Sydnor for his leadership on the issue.

This bill codifies recommendations from the Maryland Climate Commission and the Building Energy Transition Implementation Task Force to modify the STRIDE program to prioritize highest risk pipes and to consider less costly alternatives to replacement. The bill requires gas utilities to:

- Use modern leak detection technology when cost effective (that wasn't available a decade ago);
- Use a "fix it first" approach to gas infrastructure instead of replacement when cost effective;
- Give gas customers 2 years notice before work in their home so they have time to plan; and,
- Generally ensure gas infrastructure spending is cost effective.

This commonsense reform is an important step in ensuring ratepayer dollars are spent prudently and will enable state regulators to more effectively watchdog the utilities' spending plans.

BACKGROUND
There are thousands of miles of underground gas pipelines, some of which are more than 100 years old in places like Baltimore City, that provide heat and power to just under half of Maryland homes.

Marylanders are all too familiar with the risks of gas leaks and explosions. Worried about the need to maintain this aging system, the state legislature enacted the Strategic Infrastructure Development and Enhancement Plan (STRIDE) law in 2013. That law allows the gas utilities to charge customers more every month so they can ensure the safety of our gas system. STRIDE enabled spending is driving up utility bills short and long term. Under STRIDE, the utilities are allowed to add an additional $2 surcharge on top of monthly utility bills, but this only covers a small portion of the cost. Ratepayers will be on the hook to pay for the utilities'

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billion dollar pipe replacement program for decades to come. **And because of the law's existence, regulators have been hesitant to rein in some of this spending.**

Much of the impact on ratepayers from the current STRIDE law has to do with the utility's choice to perform a broad overhaul of the gas system instead of strategically addressing the riskiest pipes for replacement. Putting in new pipes is more profitable for the utilities than making repairs.

- The utilities install new pipes and equipment, and customers pay for all that spending plus a hefty return, including profits, of about 9% after taxes for the lifetime of the equipment.
- Functionally, these projects are like taking out mortgages with high interest rates that gas customers have no choice but to pay for.
- Our $2 a month is just a small fraction of the costs that are locked into charges for decades to come.

For example, this summer BGE threatened to turn off gas for customers who refused new external gas regulators. The work to install the external regulators is more expensive than replacing the internal regulators, and the PSC later ruled that customers should have the option of internal or external.

The Cost of STRIDE

According to the Office of the People's Counsel, Maryland gas utilities have spent more than two billion dollars on new gas infrastructure under the STRIDE program since 2014, and will spend nearly 10 billion total to complete the program.

The utilities expect ratepayers to pay for this spending plus additional profits for utilities over many decades, adding more than 40 billion dollars to their utility bills over the life of the program.

Environmental Concerns

Marylanders need gas utilities to maintain the safety of the system while we still need it, but overspending on new infrastructure doesn't make sense for our climate goals or for ratepayers.

Maryland's Climate Solutions Now Act of 2022 directs the state to shift away from the use of fossil fuels to power our homes. While the shift won't happen overnight, we should be especially thoughtful about our approach to new gas infrastructure.

We didn't intend to give the utilities a blank check. We could be investing that money on cleaner, safer energy to heat our homes.

We urge you to go back to the original plan and make these common sense modifications.

We respectfully request a favorable report.

testimony2024sb548ltr.pdf
Uploaded by: Franz Schneiderman
Position: FAV

Auto Consumer Alliance
13900 Laurel Lakes Avenue, Suite 100
Laurel, MD 20707

Testimony to the Senate Education, Energy and the Environment Committee
SB 548 – Natural Gas – Strategic Infrastructure Development and Enhancement
(Ratepayer Protection Act)
Position: Favorable

The Honorable Brian Feldman
Senate Education, Energy, and the Environment Committee
3 West, Miller Senate Building
Annapolis, MD 21401
cc: Members, Senate Finance Committee

Feb. 15, 2024

Honorable Chair Feldman and Members of the Committee:

I'm a consumer advocate and Executive Director of Consumer Auto, a non-profit group that works to protect Maryland consumers and secure safety, transparency, and fair treatment of Maryland drivers and car buyers.

We support **SB 548** because it makes important revisions to Maryland's STRIDE Act that should protect Maryland consumers against getting stuck with exorbitant "stranded costs" for ongoing, large-scale investments in natural gas infrastructure. These costly, ill-focused investments reflect the polluting practices of the past and are not consistent with our state's contemporary climate and greenhouse gas reduction goals.

The Abell Foundation's December 2023 report on "The Trouble with STRIDE" starkly explains our current problem, noting that the state's gas suppliers:

> *are engaged in a decades-long, state-sanctioned gas infrastructure spending spree that directly contradicts Maryland's legislatively-mandated climate goals and threatens to saddle a dwindling number of ratepayers with billions in costs for decades to come, with the impacts likely disproportionately felt by those least able to afford them.* [1]

The broad-brush character of our existing STRIDE law is central to the problem here. The law is intended to encourage reinvestment in our aging gas infrastructure by accelerating cost recovery for such investments. But the existing law doesn't do nearly enough to focus those investments on projects that are cost-effective, genuinely needed to protect public safety, and consistent with the need to move away from fossil fuel use to address the climate change crisis.

As a result, it works to encourage large and perhaps unnecessary gas infrastructure investments – and leaves ratepayers very quickly paying more to compensate our regulated utilities for their costs. The $408 million rate hike the Public Service Commission approved for BGE in December – which largely goes to cover BGE's accelerated gas infrastructure investments -- is a troubling

[1] https://abell.org/wp-content/uploads/2023/12/2023_Abell-Foundation_Climate-Policy-report_1-7mm.pdf

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Laurel, MD 20707

example. Unless we change the law, the price increases customers in the Baltimore area will pay over the next three years are likely just the tip of the iceberg.

SB 548 makes important changes to the law to focus gas infrastructure investments more wisely. It requires a project plan submitted to the PSC to show that the company has given priority to projects that address genuine safety risks and that its cost compares favorably to other ways of solving the problem. It mandates that the PSC only approve such a project if it finds it is:

- Required to improve the safety of the gas system.
- Consistent with our work to reduce the use of natural gas to achieve climate goals
- Consistent with the availability of alternative energy sources.

These changes still allow accelerated costs recovery for projects genuinely needed to protect the safety of our gas delivery system. But should also discourage crowd out unnecessary investments likely to become expensive millstones for ratepayers and reduce costs by requiring utilities to use less costly approaches than pipe replacement when they are appropriate.

At the same time, they work to encourage the much-needed transition to alternative, cleaner energy sources and to help move Maryland toward meeting our critical climate goals.

We support SB 548 and ask you to give it a FAVORABLE report.

Sincerely,

Franz Schneiderman
Consumer Auto

SB 548 - MoCo DEP - Fitzgerald_FAV (GA 24).pdf
Uploaded by: Garrett Fitzgerald
Position: FAV

Montgomery County
Office of Intergovernmental Relations

ROCKVILLE: 240-777-6550 **ANNAPOLIS: 240-777-8270**

SB 548 **DATE: February 14, 2024**

SPONSOR: Senator Sydnor

ASSIGNED TO: Education, Energy, and the Environment Committee

CONTACT PERSON: Garrett Fitzgerald (garrett.fitzgerald@montgomerycountymd.gov)

POSITION: Favorable (Department of Environmental Protection)

Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)

This legislation represents an important step in ensuring that future utility infrastructure investments in Maryland are made in the public interest from the standpoint of public safety, cost, and alignment with State climate policy.

This bill would require natural gas utilities filing infrastructure investment and cost-recovery plans with the Maryland Public Service Commission to demonstrate that they are prioritizing projects based on public safety risk and cost-effectiveness. Those plans would also be required to include an analysis comparing the costs of gas line replacement with alternatives such as leak repair or the targeted retirement of portions of the gas system in conjunction with the installation of electric equipment. High efficiency electric appliances such as heat pumps and heat pump water heaters are now widely available on the market, and it is possible to meet building energy needs without the continued use of gas.

This bill would also require the Public Service Commission, in approving plans filed by the gas utilities, to consider whether the proposed investments are: required to improve the safety of the gas system after considering alternatives to line replacement; consistent with the need to reduce the use of natural gas in light of State climate policy; and consistent with the availability and cost-effectiveness of natural gas alternatives.

These are small and reasonable requirements that will aid the Public Service Commission in ensuring that future ratepayer-funded investments in natural gas infrastructure are made with appropriate consideration of alternatives to costly gas line replacement.

We respectfully request that the Education, Energy, and the Environment Committee give Senate Bill 548 a favorable report.

Ratepayer Protection Act Testimony.pdf
Uploaded by: Jamie DeMarco
Position: FAV

Committee: EEE
Testimony: Ratepayer Protection Act, SB 548
Position: Support
Hearing Date: February 15, 2024

Jamie DeMarco, Maryland Director
Chesapeake Climate Action Network Action Fund

Enacted in 2013, the Strategic Infrastructure Development and Enhancement Plan (STRIDE) law aims to encourage gas utilities to replace certain aging gas infrastructure by allowing for accelerated recovery of infrastructure investment costs.

The intention was to maintain an aging underground gas piping system.

The effect has been that STRIDE has made it much easier for the utility to make capital investments. Instead of prioritizing fixing the riskiest pipes, it's become clear that the gas utilities are spending wastefully to boost profits.

All this spending is locking in reliance on methane gas for years to come. Methane gas is what is known as a short-lived climate pollutant. It is 86 times more potent a greenhouse gas than carbon dioxide over a 20-year period. Investing billions of dollars in new infrastructure to deliver methane gas for decades to come does not make sense for our climate goals.

Maryland's Climate Solutions Now Act of 2022 directs the state to shift away from fossil fuels to power our homes. By law, the state must reach net-zero emissions by 2045. Yet gas companies are planning to make significant fossil fuel investments from now through 2045.

Every dollar we spend on new gas infrastructure is a dollar not spent on clean, renewable energy. And the spending is significant.

According to the Office of the People's Counsel ("OPC"), Maryland gas utilities have spent more than $2 billion on new gas infrastructure under the STRIDE program since 2014, and will spend nearly $10 billion total to complete the program. When you factor in additional profits for the company, the program will add more than $40 billion to customer utility bills over its lifetime.

Gas utility spending does not stop at STRIDE. From now until 2100, utilities plan to spend $206 billion on new infrastructure, according to OPC. The ratepayer impact of this spending is daunting. At this rate, a BGE customer's bill will grow from an average of $220 in 2021-2023 to $450 by 2035 (a 104-percent increase) and $575 by 2050 (a 160-percent increase). These rate impacts will likely be substantially larger as customers electrify their home appliances and depart the gas system, leaving a shrinking rate base to foot the bill.

The Ratepayer Protection Act is a step towards reining in infrastructure spending through STRIDE. It modifies the STRIDE program to prioritize highest risk pipes. It is a commonsense reform that codifies recommendations from the Maryland Commission on Climate Change and the Building Energy Transition Implementation Task Force to protect ratepayers from STRIDE's ballooning costs.

We urge you to support SB 548.

Ratepayer Protection Act

Uploaded by: Josh Tulkin

Position: FAV

P.O. Box 278
Riverdale, MD 20738

Committee: **Education, Energy and Environment**
Testimony on: **SB 548, Natural Gas – Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)**
Position: **Support**
Hearing Date: **February 15, 2024**

The Maryland Chapter of the Sierra Club urges a favorable report for SB 548, the Ratepayer Protection Act. This bill has the potential to align investments by gas utilities with Maryland's climate goals and reduce the cost to ratepayers by eliminating gas leaks in the utility infrastructure. The Act calls for gas utilities in Maryland to: report on proposed gas main, service, and meter infrastructure investments and their life relative to the State's goal of achieving net zero greenhouse gas emissions by 2045; align investments in gas mains and services to be consistent with Maryland's climate goals; focus on cost effectiveness; maintain a safe gas infrastructure; and consider alternatives to gas pipeline replacement.

Following the passage of the Ratepayer Protection Act, the gas utilities would continue to have the obligation to immediately repair any safety risks, as they are required to do under current law. Nothing in the bill will mandate that customers remove gas from their homes.

Maryland's Climate Solutions Now Act calls for a 60% reduction in greenhouse gas emissions by 2031 and net zero greenhouse gas emissions by 2045. Reductions in methane gas consumption and leaks will play an important role in achieving those targets. Fuel used for buildings accounts for approximately 13% of greenhouse gas emissions in Maryland. Close to half of Maryland homes heat with methane gas. Leaks of methane in the streets and in homes are under-reported and have major climate impacts; the warming potential of methane as a greenhouse gas is 83 times more powerful than carbon dioxide (over a 20-year period). Maryland's Climate Pollution Reduction Plan concludes that the State cannot meet its climate targets while continuing to heat homes and hot water with gas.

SB 548 is needed because nothing in the current Strategic Infrastructure Development and Enhancement (STRIDE)[1] program requires the gas utilities to consider Maryland's climate goals, the location of leaks, or the cost effectiveness of repairing versus replacing mains, service lines or meters. Currently, the utilities simply propose a budget for a three-year period to replace gas distribution mains, service lines and meters. They can replace pipes that are not leaking. They do not have to weigh the tradeoff between repairing and replacing leaking pipes and other equipment. Utilities have the incentive to replace mains and service lines because they earn returns on these long-lived assets. If they repair leaks, this comes out of their operating budget, and they do not earn a return on the more modest spending.

[1] The STRIDE program allows each gas utility to propose a three-year program to replace distribution mains, service lines, meters, and certain other equipment. The program was enacted by the legislature in 2013. Costs of STRIDE are partially recovered by an addition to gas utility bills of up to two dollars per month. At the utility's next rate case, the STRIDE costs are added to base rates. Investments under the STRIDE program have totaled approximately $2 billion to date.

Maryland's three largest gas utilities plan to spend an estimated total of $9.5 billion (including spending to date) to replace gas infrastructure (largely mains and service lines) through 2043 according to an analysis prepared for the Maryland Office of the People's Counsel. In part as a result of this spending, gas rates for residential customers could rise by 119% to almost 200% by 2035 and by over 5-fold to almost 10-fold by 2050 as many customers migrate away from expensive gas.[2] These rate increases will disproportionately harm low-income households who bear significantly higher energy burdens. Low-income households account for 20-25% of total households in Maryland. A disproportionate percentage of these households are Black, Hispanic, and Asian. Energy burdens for low-income Marylanders are six times those of the average Marylander; low-income Maryland residents spend, on average, 12% of their income on energy bills compared to 2% for Marylanders as a whole.

Without reforms, continued spending on STRIDE will also leave Maryland with significant unrecovered costs of gas infrastructure. In 2040, 63-79% of this spending will be unrecovered and in 2060, 28-45% will not yet be recovered.[3] As the gas system contracts, these costs will be borne by a smaller and smaller set of customers.

The Ratepayer Protection Act calls for alternatives to this wasteful spending. Gas utilities would need to compare the cost and effectiveness of leak measurement and repairs with pipeline replacement in their STRIDE program filings. In many cases, repairs can be much less expensive, as low as $3,000 per leak repair versus $2,630,000 per mile for pipe replacement. The utilities would also need to report on the useful life of any STRIDE investment so that proposed repairs can be considered in the context of Maryland's climate goal of achieving net zero emissions by 2045. They would also need to consider targeted retirement of some sections of the gas system as an alternative to infrastructure replacement.

Under SB 548, the Public Service Commission (PSC) would need to consider the cost effectiveness of programs and projects and whether the projects proposed by gas utilities are consistent with Maryland's climate policy. SB 548 represents a good first step in reigning in costly spending on gas infrastructure that is likely to lead to stranded assets by 2045. It requires the utilities and the PSC to consider Maryland's climate goals as well as cost effectiveness as they plan for investments in gas infrastructure.

The Maryland Chapter of the Sierra Club urges approval of this legislation.

Christopher T. Stix
Clean Energy Legislative Team
StixChris@gmail.com

Josh Tulkin
Chapter Director
Josh.Tulkin@MDSierra.org

[2] Climate Policy for Maryland's Gas Utilities, Financial Implications, page 21, Office of the People's Counsel, State of Maryland, October 2022

[3] Maryland Gas Utility Spending projections and analysis, page 31 Office of the People's Counsel, October 2022, https://opc.maryland.gov/Portals/0/Files/Publications/Reports/Report%20on%20GasUtilitySpending%2010-5-22%20Final%201.pdf

SB0548 Climate Coalition Moco Testimony_V2.pdf
Uploaded by: Karl Held
Position: FAV

CLIMATE COALITION
Montgomery County, MD

Committee: **Education, Energy, and the Environment**
Testimony on: **SB0548 - Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)**
Organization: **Climate Coalition Montgomery County MD**
Submitting: **Kevin Walton, Member**
Position: **Favorable**
Hearing Date: **February 15, 2024**

Dear Chair and Committee Members:
Thank you for allowing our testimony today in support of SB0548. The Climate Coalition Montgomery County, consisting of organizations focused on the climate and environment, urges you to vote favorably on SB0548.

SB0548 amends the current STRIDE law. While the bill continues to allow utilities to receive accelerated cost recovery for qualifying gas infrastructure investments, it limits these investments to replacement projects that address aging pipes with the highest risk for failure. The bill also reduces customer rates by requiring gas utilities to use less costly alternatives than replacement where appropriate. Importantly, it aligns long-term gas infrastructure management with State climate policy and lowers the risk of locking in fossil fuel infrastructure investments that are likely to become uneconomic and stranded.

The Problem
The current STRIDE law, allowing utilities to receive accelerated cost recovery for qualifying gas infrastructure investments, fails to require utilities to prioritize pipe replacement based on the severity of safety risks. As such, the gas utilities are using STRIDE to make large investments in gas infrastructure, predicted to be in the tens of billions of dollars and resulting in excessive rate increases for customers. Additionally, STRIDE was enacted before technological advances made electric appliances a competitive long-term alternative to gas appliances. Based on these advances, building electrification is being promoted in policies from both the federal government and the State of Maryland (such as the Inflation Reduction Act and the Climate Solutions Now Act, respectively). Thus, STRIDE fails to account for the substantial risks of stranded investments as buildings, both residential and commercial, move away from gas towards electrification. For example, the 2021 Building Energy Transition Plan, issued by the Maryland Commission on Climate Change, notes that gas consumption in buildings is projected to decrease between 62 and 96 percent by 2045.

The Solution
SB0548 addresses these issues by realigning the focus of STRIDE to projects based on risk to the public and cost-effectiveness. This will include an analysis that compares cost of replacement with alternatives such as leak detection and repair or the targeted retirement of portions of the gas system in conjunction with electrification. Importantly, the Climate Solutions Now Act requires the state to reach net-zero greenhouse gas emissions by 2045. This amendment to STRIDE updates the program to align with this goal and will also save utility customers money over the coming decades. Therefore, we recommend a **FAVORABLE** report for SB0548 in committee.

Respectfully,

Kevin Walton
for the Climate Coalition, Montgomery County

Climate Coalition Member Organizations
350 Montgomery County
ACQ Climate (Ask the Climate Question)
Biodiversity for a Livable Climate
Chesapeake Climate Action Network
Elders Climate Action
Environmental Justice Ministry Cedar Lane Unitarian Universalist Church
Environmental Study Group
Friends of Sligo Creek
Green Sanctuary Committee of the Unitarian-Universalist Church of Silver Spring
Montgomery Countryside Alliance
Montgomery County Faith Alliance for Climate Solutions
One Montgomery Green
Poolesville Green
Transit Alternatives to Mid-County Highway Extended/M-83 (TAME)
The Climate Mobilization Montgomery County
Takoma Park Mobilization Environment Committee (TPMEC)
Zero Waste Montgomery County

SB0548 (HB0731) - FAV - STRIDE.pdf
Uploaded by: Landon Fahrig
Position: FAV

Maryland Energy Administration

TO: Chair Feldman, Vice Kagan, and members of the Senate Education, Energy, and the Environment Committee
FROM: MEA
SUBJECT: SB 548 Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)
DATE: February 15, 2024

MEA Position: FAVORABLE

This bill would amend Maryland's Strategic Infrastructure Development and Enhancement (STRIDE) law to better mitigate ratepayer impacts and align gas infrastructure replacement with the State's climate requirements, while also maintaining focus on the health and safety of Marylanders.

As it stands now, Maryland's gas utilities interpret the STRIDE law to justify millions of dollars in spending to replace miles of potentially leak-prone (not actually leaking) pipe. MEA supports utilities in their efforts to protect health, life, and property by replacing hazardous pipes. Many pipes that may be leak-prone, however, do not pose such a threat.

Utilities also have a duty to protect ratepayers and to help Maryland meet its accelerated GHG requirements. Pipe replacement spending may ultimately leave ratepayers to bear the costs of stranded gas assets as more Marylanders electrify their homes and businesses.

There is a better way to proceed. This bill is consistent with recommendations of the Maryland Commission on Climate Change[1], and the Maryland Building Energy Transition Implementation Task Force[2], and with testimony that the Maryland Energy Administration (MEA) and other parties filed with the Maryland Public Service Commission (PSC). In the 2023 rate cases of Washington Gas and Light Company (Case No. 9704), Columbia Gas (Case No. 9701) and Baltimore Gas and Electric Company (Case No. 9692), MEA and others urged the PSC to make sure Maryland's gas utilities focus where possible on alternatives to costly pipe replacement, such as pipe repair or targetted electrification (i.e.,

[1] Maryland Commission on Climate Change, 2023 Annual Report, Recommendation 14.
[2] Maryland Building Energy Transition Implementation Task Force Final Report, January 24, 2024, p.15.

assessing if a neighborhood would be better served by electrification). Currently, New York utilities are demonstrating that non-pipeline alternatives can achieve safety and cost containment in their leak-prone pipe programs. See e.g., New York State Public Service Commission, Case No. 20-G-0131.

The PSC agreed, stating that "[G]as utilities must consider all cost-effective non-pipeline alternative options available to defer, reduce, or remove the need to construct or upgrade components of their natural gas systems, and not solely pursue infrastructure replacement, in order to prudently justify their system safety and reliability spending in the future." Order No. 90943 (CN 9704), p. 135. This bill would codify and expand on that requirement.

For the foregoing reasons, MEA urges the committee to issue a **favorable report**. Thank you for your consideration of this testimony. For questions or additional information, please contact Joyce Lombardi at joyce.lombardi1@maryland.gov or 443.401.1081.

HB548-FAVORABLE-MD ENERGY ADVOCATES COALITION.pdf
Uploaded by: Laurel Peltier
Position: FAV

TESTIMONY IN SUPPORT SB 548

Natural Gas - STRIDE- Ratepayer Protection Act
Education, Energy and the Environment Committee
February 15, 2024

Maryland Energy Advocates Coalition is in strong support of SB548 as this bill would add the needed investment and project standards for future STRIDE investments. Our coalition's goal is to ensure that low-income family utility bills are affordable through advocacy, reporting and education

STRIDE's negative financial impact has already been felt by low-income rate payers for several years. Gas distribution rates are significantly higher and terminations are at an all time high. (See charts below).

STRIDE's stated goal was to improve safety by replace hundreds of miles of cast iron pipes. To fund this, a new and incremental revenue stream, above rate cases, opened the door for so far $2 billion in incremental rates. And there has been no safety improvement, because there were no safety issues from old infrastructure. Tragic incidents were, and still are, caused mostly by human error. In Maryland, and in the US. [1]

With no incentive to repair rather than replace, or to focus on high leak zones, and actually improve safety, BGE, Washington Gas and Columbia Gas distribution rates have significantly increased. BGE's residential gas distribution rates alone increased from 2023 to 2024 from **$0.7075 / therm to $0.8904 / therm**, a full 26% increase. In only one year.

The Trouble with STRIDE:

- There never was, and is still not today, any safety issues with aging cast iron infrastructure. While old pipes do leak, STRIDE has no standards for what constitutes reasonable gas replacement. This could change tomorrow, but to date, the data holds this as true.
- The monthly STRIDE surcharge hides the real utility bill impact that the balance of the gas capital investments, spent by utilities above the surcharges

[1] https://abell.org/publication/the-trouble-with-stride/

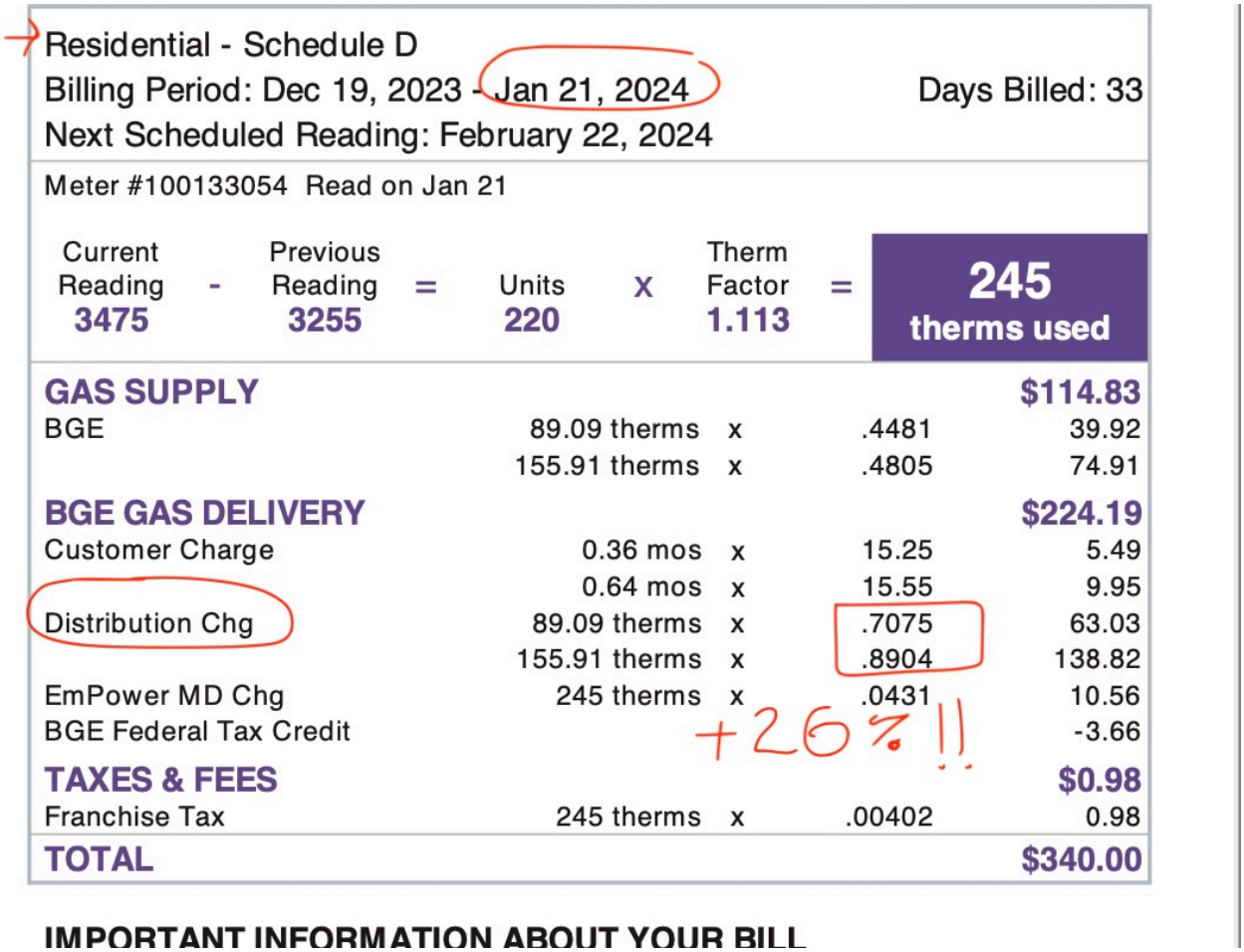
collected, is folded into the gas distribution bucket during MYP rate cases. Above normal rate cases.

- **It's unclear if any utility, the PSC, or anyone besides the MD OPC has done the simple math to forecast if anyone, let alone the low-income residential segment (430,000 accounts), will be able to afford residential gas. BGE gas distribution rates that will most likely exceed $1 per therm by 2025. More than double today's gas supply price. Is this charge heading to $2.50 or $1.35/ therm? And that's before STRIDE 3, 4, 5 and 6 kick in.**

It is unrealistic to assume that Maryland's STRIDE investment program, as is, can even proceed on this spending trajectory given the extreme rate ***incremental*** increases already approved through 2024.

SB548 gives the state and the PSC more safeguards and guard rails to ensure that future STRIDE approvals and spending is reasonable, supporting safety, reducing methane leaks and can even be paid for by consumers given the forecast that consumers will migrate away from gas to electric.

Thank you to Senator Sydnor for sponsoring SB548. Maryland Energy Advocates Coalition 100% supports passing this bill.



Residential - Schedule D
Billing Period: Dec 19, 2023 - Jan 21, 2024 Days Billed: 33
Next Scheduled Reading: February 22, 2024

Meter #100133054 Read on Jan 21

Current Reading	-	Previous Reading	=	Units	x	Therm Factor	=	245 therms used
3475		3255		220		1.113		

GAS SUPPLY				**$114.83**
BGE	89.09 therms	x	.4481	39.92
	155.91 therms	x	.4805	74.91
BGE GAS DELIVERY				**$224.19**
Customer Charge	0.36 mos	x	15.25	5.49
	0.64 mos	x	15.55	9.95
Distribution Chg	89.09 therms	x	.7075	63.03
	155.91 therms	x	.8904	138.82
EmPower MD Chg	245 therms	x	.0431	10.56
BGE Federal Tax Credit				-3.66
TAXES & FEES				**$0.98**
Franchise Tax	245 therms	x	.00402	0.98
TOTAL				**$340.00**

+26%!!

IMPORTANT INFORMATION ABOUT YOUR BILL

BGE Terminations reported in PSC Monthly reports

BGE RES. T/O NOTICES & TERMINATIONS

YEAR	# RESIDENTIAL ACCOUNTS	# TURN OFF NOTICES	# TERMINATIONS
2015	1.2 M	2,400,000	55,000
2016	1.2 M	2,500,000	50,000
2017	1.2 M	2,500,000	52,000
2018	1.2 M	1,620,000	61,000
2019	1.2 M	1,370,000	58,000
2020 -PC53	1.2 M	443,000	7,000
2021 -PC53	1.2 M	456,000	28,000
2022 - PC53	1.2 M	609,000	54,000
2023	1.2 M	1, 100,000	80,000*

SOURCE: MD. PSC TERMINATION REPORTS

(* 7% accounts)

SB548_Ratepayer Protection Act_EEE_CJW FAV.pdf
Uploaded by: Laurie McGilvray
Position: FAV

Committee: **Education, Energy and the Environment**
Testimony on: **SB548 - Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)**
Organization: **Maryland Legislative Coalition Climate Justice Wing**
Submitting: **Laurie McGilvray, Co-Chair**
Position: **Favorable**
Hearing Date: **February 15, 2024**

Dear Chair and Committee Members:

Thank you for allowing our testimony today in support of SB548. The Maryland Legislative Coalition (MLC) Climate Justice Wing, a statewide coalition of nearly 30 grassroots and professional organizations, urges you to vote favorably on SB548.

SB0548 amends the current Strategic Infrastructure Development and Enhancement Plan (STRIDE) law passed in 2013 to focus on public risk and cost-effectiveness. The law was originally intended to allow gas utilities to add a surcharge to customers' monthly bills to ensure accelerated cost recovery for a safe gas system. More than a decade of experience has revealed that gas utilities prioritized investment in gas system expansion and replacement, and the associated profits, over fixing the riskiest pipes and regulators.

The Maryland Office of the People's Counsel notes that since 2014, gas utilities have spent more than two billion dollars under the STRIDE law on new gas infrastructure, and will spend a total of nearly 10 billion to complete the program. Maryland ratepayers are on the hook to cover these costs, as well as additional profits for utilities, amounting to 40 billion over the life of the program.

Utility investments in new gas infrastructure are not only costly, but are taking Maryland in the wrong direction. The current STRIDE law has committed ratepayers to the long-term maintenance of a gas system when we should be investing in clean renewable energy. To solve this problem, SB0548 amends STRIDE to limit gas utility investments to the replacement of aging pipes with the highest risk for failure, while still allowing utilities to receive accelerated cost recovery. The bill also requires gas utilities to use less costly alternatives than replacement where appropriate. Utilities must compare the cost of replacement with alternatives such as leak detection and repair or targeted retirement of portions of the gas system in conjunction with electrification.

SB0548 updates the STRIDE law to align with Maryland's climate policy and save customers money over the coming decades. The MLC Climate Justice Wing strongly supports SB548 and urges a **FAVORABLE** report in Committee.

350MoCo
Adat Shalom Climate Action
Cedar Lane Unitarian Universalist Church Environmental Justice Ministry
Chesapeake Earth Holders
Chesapeake Physicians for Social Responsibility
Climate Parents of Prince George's
Climate Reality Project
ClimateXChange – Rebuild Maryland Coalition
Coming Clean Network, Union of Concerned Scientists
DoTheMostGood Montgomery County
Echotopia
Elders Climate Action
Fix Maryland Rail
Glen Echo Heights Mobilization
Greenbelt Climate Action Network
HoCoClimateAction
IndivisibleHoCoMD
Maryland Legislative Coalition
Mobilize Frederick
Montgomery County Faith Alliance for Climate Solutions
Montgomery Countryside Alliance
Mountain Maryland Movement
Nuclear Information & Resource Service
Progressive Maryland
Safe & Healthy Playing Fields
Takoma Park Mobilization Environment Committee
The Climate Mobilization MoCo Chapter
Unitarian Universalist Legislative Ministry of Maryland
WISE

sb548- strategic infrastructure, alterations, PSC-

Uploaded by: Lee Hudson

Position: FAV

Delaware-Maryland Synod
Evangelical Lutheran Church in America
God's work. Our hands.

Testimony prepared for the
Education, Energy, and the Environmental Committee
on
Senate Bill 548
February 15, 2024
Position: **Favorable**

Mr. Chairman and members of the Committee, thank you for this opportunity to urge a public commitment to addressing climate disaster and its companion, environmental justice. I am Lee Hudson, assistant to the bishop for public policy in the Delaware-Maryland Synod, Evangelical Lutheran Church in America. We are a faith community of three ELCA judicatories in every part of our State.

In solidarity with all things now living, our community advocates policies that care for creation. We have recognized greenhouse gases as an environmental threat since 1993. We support public action for a greener future to mitigate climate catastrophe. We regularly join other interests in the United States that call for decarbonizing the commercial energy sector.

Last fall we stated opposition to a request from Baltimore Gas and Electric to the Maryland PSC for a consumer rate increase facilitating and expanding natural gas infrastructure. Our position was based on our support for iterations of the Climate Solutions Act of 2022. The intent of the Act is a Maryland energy regime transition toward carbon neutrality as rapidly as possible.

A publicly developed plan to achieve decarbonized energy production, articulated as regulatory coherence, is a better procedural choice for policy than *per se* debate about this or that commercial advantage. Utilities, previously understood to be public, provide a public good to which all communities are obligated.

Our support for **Senate Bill 548** leans on the Maryland Office of People's Counsel testimony before the PSC last fall. Advancing public financing for natural gas infrastructure is a prescription for, a} increasing, not reducing, greenhouse gas emissions, and b} accumulating private asset eligible for further public financing as stranded costs resulting from energy sector decarbonization.

Our community supports a developed regulatory protocol to implement goals for carbon reduction in the State's energy regime. We understand **Senate Bill 548** to be implementing that. We understand decarbonization to be in the interest of both the public good and safety. We, therefore, urge your favorable report for this bill.

Lee Hudson

5699 Meridale Rd. Baltimore, MD 21228 410-230-2860 800-869-5492 fax 410-230-2871

SB0548_Stride_EEE_LizFeighner_FAV.pdf
Uploaded by: Liz Feighner
Position: FAV

SB0548: Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act) Testimony

Hearing Date: February 15, 2024
Bill Sponsor: Senator Sydor
Committee: Education, Energy, and the Environment
Submitting: Liz Feighner
Position: Favorable

Chair Feldman, Vice Chair Kagan and members of the committee, my name is Liz Feighner and as a climate activist, I urge your support of SB0548. I am very concerned about the use of fossil fuels in our homes and businesses and extremely concerned we are not transitioning away from fossil fuels fast enough. We should not be expanding our gas infrastructure and should be only repairing current gas lines where there is a safety issue.

The STRIDE Act of 2013 allows gas utility companies to charge customers a small fee to ensure gas utility safety. Reform is needed because utilities are using the current $2.00 surcharge to replace all pipes without prioritizing them for safety risk. Our $2 is just a small fraction of the costs that are locked into charges for decades to come because customers pay for all that spending plus a hefty return, including profits, of about 9% after taxes for the lifetime of the equipment.

In fact, my neighborhood is only 30 years old and when I saw utility work being done and inquired about it. I was told that they were replacing the gas line with a larger pipeline, so that we had more capacity to use more gas. I was completely dumbfounded as we shouldn't be increasing gas use. These lines were not being repaired or replaced for safety, they were being replaced just for the sake of increasing capacity costing me and all ratepayers while lining the pockets of BGE's shareholders.

Maryland gas utilities have spent more than two billion dollars on new gas infrastructure under the STRIDE program since 2014 and will spend nearly 10 billion total to complete the program. Utilities are ignoring the state's Climate Solutions Now goals to reach net-zero by 2024, a goal which is only possible if the state moves significantly to building electrification.

As this Abell Foundation report from December 2023 indicates: "... the state's regulated gas suppliers are engaged in a decades-long, state-sanctioned gas infrastructure spending spree that directly contradicts Maryland's legislatively-mandated climate goals and threatens to saddle a dwindling number of ratepayers with billions in costs for decades to come, with the impacts likely disproportionately felt by those least able to afford them."

This bill requires gas utilities to implement new gas leak detection technologies when cost effective, and to apply a "fix it first" approach rather than installing costly new infrastructure. It also requires the utilities to give customers 2 years' notice before the work begins in their community.

SB0548 is a commonsense reform that helps to ensure that ratepayers are receiving cost-effective solutions to gas leak problems while allowing state regulators to monitor gas utility spending more effectively.

I urge passage of SB0548, providing moderate reform to STRIDE, to better align utilities priorities with Maryland's priorities and priorities needed to take action on the climate crisis.

Submitted by Liz Feighner
Laurel, MD 20723

Advanced Energy United Testimony - SB 548.pdf
Uploaded by: Nick Bibby
Position: FAV

ADVANCED ENERGY UNITED

SB 548 – Natural Gas – Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)

Education, Energy, and Environment Committee
February 15, 2024

Nicholas Bibby, Maryland State Lead, Advanced Energy United

Position: Support

Mr. Chairman and Honorable Members of the Committee:

Advanced Energy United ('United') writes to request a favorable report on SB 548, which would modify the Strategic Infrastructure Development and Enhancement (STRIDE) Program to prioritize the highest risk gas pipelines and to consider less costly alternatives for the replacement of gas infrastructure.

United is a national industry association that educates and advocates for policies that allow our member companies to compete to repower our economy with clean, reliable, and affordable energy. We represent over 100 businesses working across the energy sector, including large-scale and distributed renewables, geothermal, energy storage, energy efficiency, transmission developers, electric vehicle (EV) manufacturers, charging infrastructure providers, and more.

As you are aware, in 2013, the state legislature enacted the Strategic Infrastructure Development and Enhancement Plan or STRIDE law, which allows gas utilities in the state to charge customers more every month to accelerate the cost recovery of replacement of certain aging pipelines. Under this program, gas utilities in the state plan to spend upward of $4.7 billion on fossil-fuel infrastructure over the next 20 years, which is not expected to be fully recovered (i.e. taken off of customer bills) until 2100.[1]

[1] Office of People's Counsel, Executive Summary of Gas Utility Spending Report (October 2022). Available at: https://opc.maryland.gov/Portals/0/Files/Publications/Consumer-Learning/Executive%20Summary%20on%20GasUtilitySpending%20Executive%20Summary%2010-5-22.pdf?ver=kwkREqDHbyQHFUgVoEIl2g%3d%3d

The continuation of this wholesale replacement program – without deeper project-by-project scrutiny for need – is not only more expensive for Maryland ratepayers, but ties the state for decades to a fossil fuel system that is inconsistent with Maryland's broader state energy policy goals in accordance with significant legislation such as the Climate Solutions Now Act of 2022 (CSNA). Additionally, as homeowners and businesses take advantage of federal incentives like the Home Efficiency Rebates and the Home Electrification and Appliance Rebate Programs to increase their buildings' energy efficiency and move toward electrification, fewer and fewer customers will be left to foot the bill of these fossil fuel infrastructure investments. Business as usual exposes the state to stranded asset risks that are only increasing year to year.

United strongly supports having the Public Service Commission give more individualized attention to gas pipeline replacements, as opposed to an accelerated and nearly automatic approval process, so that projects absolutely necessary for safety and reliability are completed in a timely manner. A more thoughtful process can also identify where system needs may be addressed with clean energy investments better aligned with state policy goals ("non-pipeline alternatives"). This may include a range of distribution system technologies, software, and services not traditionally prioritized within these pipe replacement programs, but that may enhance the safety, tracking and data accuracy, and utility visibility into the gas system to prepare for future needs, including gas demand response and gas system shrinkage.

The Ratepayer Protection Act would modify the STRIDE program to prioritize the highest risk pipes actually in need of investment, while also considering lower-cost alternatives to full pipe replacement. This is a significant and overdue reform, requiring Maryland's gas utilities to ensure, first and foremost, that gas infrastructure spending is cost effective for its customers, while giving state regulators such as the Public Service Commission more tools at its disposal to review gas utility spending and determine what is in the best interest of the Maryland ratepayer, especially given the state's clean energy and decarbonization goals. United supports this effort to ensure that ratepayer dollars are spent prudently.

Advanced Energy United requests a favorable report on SB 548.

SB548_FAV_ NCLC 2024_OWein_Feb 15 2024.pdf
Uploaded by: Olivia Wein
Position: FAV

National Consumer Law Center

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WASHINGTON OFFICE
Spanogle Institute for Consumer Advocacy
1001 Connecticut Avenue, NW, Suite 510
Washington, DC 20036
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NCLC.ORG

Maryland Senate Education, Energy and the Environment Committee
Hearing on **SB 548 Natural Gas – Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)**
Testimony of Olivia Wein, National Consumer Law Center
February 15, 2024

Position – Support

To the Members of the Education, Energy and the Environment Committee:

Thank you for holding this hearing on **Senate Bill 548, Natural Gas – Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act) (SB 548).** My name is Olivia Wein and I am a Senior Attorney with the National Consumer Law Center. The National Consumer Law Center ("NCLC") is a non-profit law and policy organization that, since 1969, has used its expertise in consumer law and energy policy to advance consumer justice, racial justice, and economic security for low-income families and individuals. We submit this testimony on behalf of our low-income clients.

NCLC has been actively involved in advocacy for consumers who have struggled to afford vital utility service, including advocacy in Maryland and other states. We submit this testimony in support of SB 548, because the Ratepayer Protection Act contains important protections that will help keep low-income consumers connected to essential home heating utilities during the transition to greater electrification of home heating.

Affordable energy service is critical for the maintenance of habitable, safe homes. Unfortunately, the lower the amount of a Marylander's household income, the greater the share of that household income that must be dedicated to the monthly utility bills. The percentage of

income required to cover energy costs is often referred to as the household's "energy burden." The average energy burden increases as household income decreases. One analysis of energy burdens in the state found that in 2022, Maryland households with incomes below 50% of the Federal Poverty Level had to spend an average of 37% of their household income to pay home energy bills.[1] Another analysis of residential energy affordability found that around 400,000 Marylanders have an energy burden over 6%.[2] Even moderate-income Marylanders, with household incomes of 185% - 200% of the Federal Poverty Level, had energy burdens of 8%.[3] This is in comparison to non-low-income households, which on average have much smaller energy burdens of around 3%.[4]

Many low-income Marylanders with high energy burdens are currently struggling to pay their energy bills and are thus at risk of disconnection from vital utility service. According to data filed by BG&E at the Maryland Public Service Commission, in 2023, BG&E reported 10,567 low-income customers were disconnected (7,911 low-income households were reconnected), and the gross amount of low-income customer arrearages was over $93,500,000.[5]

The Ratepayer Protection Act is an important, modest consumer protection step as Maryland considers gas infrastructure investments and gas utility operations in light of impacts on ratepayers and the state's emission reduction goals, as set forth in the 2030 Greenhouse Gas

[1] Fisher, Sheehan & Colton, *The Home Energy Affordability Gap 2022, Maryland (April 2023)*, available at http://www.homeenergyaffordabilitygap.com/.
[2] Arjun Makhijani, et al, Energy Affordability in Maryland: Integrating Public Health, Equity and Climate, Executive Summary (Feb. 2023), available at https://www.psehealthyenergy.org/wp-content/uploads/2023/02/Energy-Affordability-in-Maryland-2023_-Final-Report-1.pdf.
[3] Fisher, Sheehan & Colton, *The Home Energy Affordability Gap 2022, Maryland (April 2023)*, available at http://www.homeenergyaffordabilitygap.com/.
[4] See e.g., Dept. of Energy, "Low-Income Community Energy Solutions" at https://www.energy.gov/scep/slsc/low-income-community-energy-solutions.
[5] Maryland Public Service Commission webpage on Termination and Arrearages available at https://webapp.psc.state.md.us/newIntranet/test/Viewreport.cfm.

Emissions Reduction Act (GGRA) Plan.[6] The STRIDE law[7] was intended to expedite the replacement of aging gas infrastructure by providing utilities a special method for recovering their spending on gas infrastructure, a cost ultimately borne by utility ratepayers. While the Ratepayer Protection Act continues to allow utilities to receive accelerated cost recovery for qualifying gas infrastructure investments, it does provide several notable protections for consumers. SB 548:

- Reduces customer rates by requiring gas utilities to use less-costly alternatives and lowers the risk of spending on assets that are likely to become uneconomic or stranded.
- Prioritizes replacement of aging pipes that pose the most risk to the public.
- Requires consideration of less costly alternatives to replacement, including leak detection and repair, targeted retirement and electrification.

Such modest, common-sense measures to protect Marylanders from financial harm are particularly important during the transition to a cleaner energy system.

In conclusion, NCLC supports SB 548 and recommends it receive favorable treatment from this committee. If there are any questions regarding this testimony, please contact Olivia Wein, Senior Attorney, National Consumer Law Center at owein@nclc.org or 202-452-6252.

Sincerely,

/s/ Olivia Wein

Olivia Wein, Senior Attorney
National Consumer Law Center

[6] Maryland joins several other states in this effort, including California ([6]California Public Utilities Commission, Long-Term Gas Planning Proceeding (R 20-01-007)), Colorado (Colorado Public Utilities Commission, Gas Rulemaking Proceeding 21R-0449G) and Massachusetts (Massachusetts Department of Public Utilities, Future of Gas Proceeding, Docket No. D.P.U. 20-80) have taken steps to consider together gas infrastructure safety concerns, the need to transition to more renewable energy sources, impacts on gas utility operations, and the impacts on ratepayers.

[7] STRIDE statute, PUA §4-210.

SB548_IndivisibleHoCo_FAV_Peter Alexander.pdf
Uploaded by: Peter Alexander
Position: FAV

IndivisibleHoCoMD

SB548

Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)

Testimony before the Education, Energy, and the Environment

Hearing February 15, 2024

Position: Favorable

Dear Chair Feldman and Vice-Chair Kagan, and members of the committee, my name is Peter Alexander, and I represent the 700+ members of Indivisible Howard County. Indivisible Howard County is an active member of the Maryland Legislative Coalition (with 30,000+ members). We are providing written testimony today **in support of SB548.** We appreciate the leadership of Senator Sydnor in sponsoring this legislation.

The STRIDE Act of 2013 allows gas utility companies to charge customers a small fee to ensure gas utility safety. In 2024, it has had the unintended consequence of encouraging gas utilities to make massive investments in new gas infrastructure, without taking steps to ensure cost effectiveness, and locking in large charges for captive customers short and long term, well beyond the $2 fee.

The 2022 Climate Solutions Now Act mandates Maryland to shift away from fossil fuels, but spending on new gas infrastructure diverts much-needed investment in clean, renewable energy programs.

SB548, which would implement the recommendations of the **Maryland Commission on Climate Change** and the **Building Energy Transition Implementation Task Force**, does not repeal the STRIDE Act. Rather, it requires gas utilities to implement new gas leak detection technologies when cost effective, and to apply a "fix it first" approach rather than installing new infrastructure. It also requires the utilities to give customers 2 years' notice before the work begins in their community.

SB548 is commonsense reform that helps to ensure that ratepayers are receiving cost-effective solutions to gas leak problems while allowing state regulators to monitor gas utility spending more effectively.

Thank you for your consideration of this important legislation.

We respectfully urge a favorable report.

Peter Alexander, PhD
District 9A
Woodbine, MD 21797

SB548 - MDLCV Support - Ratepayer Protection Act.p
Uploaded by: Rebecca Rehr
Position: FAV

MARYLAND LEAGUE OF CONSERVATION VOTERS

February 15, 2024

Support SB 548 - Natural Gas – Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)

Dear Mr. Chairman and Members of the Committee:

Maryland LCV supports SB 548 - Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act), and we thank Senator Sydnor for his leadership on this issue.

The 2013 Strategic Infrastructure Development and Enhancement (STRIDE) Act was passed in Maryland in response to national safety concerns following a large natural gas pipe explosion in California. STRIDE has not served its intended purpose. STRIDE has more than doubled Maryland's previous average investment in gas infrastructure, yet has not led to improved safety outcomes related to natural gas accidents the legislation was passed to mitigate and prevent.

A 2023 report from the Abell Foundation found that in the nine years prior to STRIDE, there were no serious injuries or deaths due to natural gas incidents in Maryland. But in the 10 years since the STRIDE Act passed, there have been nine deaths and 58 serious injuries. Utilities have not changed their investment strategy, with no targeting of infrastructure upgrades that will result in improved safety outcomes. SB 548 directs funds allocated through STRIDE to safety-related improvements of at-risk infrastructure, effectively addressing the program's intent.

Maryland's current strategy for gas utility spending is not in alignment with our state's climate goals. Without the direction provided in SB 548, STRIDE will conclusively lead to stranded costs during Maryland's transition to clean energy. Maryland's Office of People's Counsel (OPC) projected that STRIDE investments will total $206 billion in stranded costs between 2024 and 2100.

In addition, increased gas infrastructure costs will be more burdensome to low-income Marylanders. According to the OPC, homes that heat with bulk fuels and gas have higher energy burdens than homes with electric as their primary fuel type. As homes transition away from natural gas, low-income households will likely be among the last to electrify. This leaves these households to bear the cost of gas utility investments.

It is for these reasons the Maryland Commission on Climate Change has also suggested the state restrict STRIDE to emergency spending in its 2023 report. As the Maryland General Assembly and Administration implement Maryland's Climate Solutions Now Act, power system infrastructure spending priorities must change. 21st century priorities include decarbonizing transportation and generation, increasing energy efficiency in the building sector, and developing a workforce skilled in electrification, clean energy, and efficiency.

SB 548 is the start to a gas infrastructure transition strategy that supports Maryland's climate targets. **Maryland LCV urges a favorable report on this important bill.**

SB0548-Natural_Gas_Stategic_Infrastructure_Develop
Uploaded by: Ruth White
Position: FAV

HoCoClimateAction.org
Howard County, Maryland

SB0548 : Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)
Hearing Date: February 15, 2024
Bill Sponsor: Senator Sydor
Committee: Education, Energy, and the Environment
Submitting: Ruth White for Howard County Climate Action
Position: Favorable

HoCo Climate Action is a 350.org local chapter and a grassroots organization representing approximately 1,400 subscribers. It is also a member of the Climate Justice Wing of the Maryland Legislative Coalition.

The STRIDE Act of 2013 allows gas utility companies to charge customers a small fee to ensure gas utility safety. Reform is needed because utilities are using the current $2.00 surcharge to replace all pipes without prioritizing them for safety risk.

Maryland gas utilities have spent more than two billion dollars on new gas infrastructure under the STRIDE program since 2014 and will spend nearly 10 billion total to complete the program. Utilities are ignoring the state's Climate Solutions Now goals to reach netzero by 2024, a goal which is only possible if the state moves significantly to building electrification.

"The utilities get guaranteed returns by law just for spending money. That is a cushy situation that no other business in any capitalist society enjoys" (quote from Volts Podcast with Marissa Gillett, head of the CT utility regular, who worked for 7 years in the MD Public Service Commission). This bill establishes long overdue guidelines for STRIDE spending. The question is stark - whose priorities will prevail: the pocketbooks and well-being of their Maryland customers or the utilities business plans which profit their shareholders?

As David Lapp, head of the Office of the People's Counsel said in a recent Baltimore Sun article: "BGE is investing in its gas system at twice the rate of its electric system. The utility is currently just one-third of its way through replacing its entire legacy gas system — a program that will take another 20 years to complete, finishing up right around the time when the state mandates net-zero greenhouse gas emissions."

As this Abell Foundation report from December 2023 indicates: "... the state's regulated gas suppliers are engaged in a decades-long, state-sanctioned gas infrastructure spending spree that directly contradicts Maryland's legislatively-mandated climate goals and threatens to saddle a dwindling number of ratepayers with billions in costs for decades to come, with the impacts likely disproportionately felt by those least able to afford them."

This bill requires gas utilities to implement new gas leak detection technologies when cost effective, and to apply a “fix it first” approach rather than installing costly new infrastructure. It also requires the utilities to give customers 2 years’ notice before the work begins in their community.

SB0548 is a commonsense reform that helps to ensure that ratepayers are receiving cost-effective solutions to gas leak problems while allowing state regulators to monitor gas utility spending more effectively.

We urge passage of SB0548, providing moderate reform to STRIDE, to better align utilities priorities with Maryland’s priorities.

Howard County Climate Action
Submitted by Ruth White, Steering and Advocacy Committee
www.HoCoClimateAction.org
HoCoClimateAction@gmail.com

SB 548-AOBA--FAV.pdf
Uploaded by: Ryan Washington
Position: FAV

Bill No: **SB 0548— Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)**

Committee: **Education, Energy, and the Environment**

Date: **2/15/2024**

Position: **Favorable**

The Apartment and Office Building Association of Metropolitan Washington ("AOBA") submits this testimony in support of Senate Bill 548. AOBA members own or manage approximately 20,132,291 million square feet of commercial office space and over 324,458 apartment units in the State of Maryland. Our members are served on a mixture of Washington Gas Light Company's ("WGL") distribution non-residential rate schedules, i.e., Commercial and Industrial, Group Metered Apartment and Interruptible rate schedules. AOBA members also receive gas distribution service from Baltimore Gas and Electric Company ("BGE") under non-residential rate tariffs.

As explained below, SB 548 benefits AOBA members (and all Maryland natural gas customers) by augmenting the reporting requirements attached to the Strategic Infrastructure Development and Enhancement Plan or "STRIDE." Under STRIDE, Maryland natural gas utilities are authorized to recover the cost of replacing aging and deteriorating pipelines and related services on an accelerated basis. Specifically, SB 548 improves the current legislation authorizing STRIDE by mandating that any "Plan" submitted by a natural gas utility seeking cost recovery for a proposed infrastructure replacement project include:

- a project description, including the project's "expected useful life";
- a demonstration that the company has selected and "given priority to projects "based on the risk to the public and cost-effectiveness";
- an "analysis" of "alternatives to replacement"; including leak detection and repair and the targeted retirement or abandonment of portions of the gas system in conjunction with electrification; and
- notice to customers "affected by proposed projects at least 2 years in advance of construction";

Importantly, SB 548 also marries the promotion of gas infrastructure projects to Maryland's climate policy, specifying that Commission approval include a finding that the Plan will "improve the safety of the gas system after consideration of alternatives to replacement" and is "consistent with the need to reduce the use of natural gas in light of State Climate Policy" and is consistent with the "projected availability and cost-effectiveness of natural gas alternatives."

AOBA supports adoption of SB 548. The legislation, as proposed, will enhance consumer protection by placing a renewed emphasis on pipeline system safety. Consistent with the State's climate policy, the legislation will also reduce the consumption of natural gas by forcing State public utilities and the Maryland Public Service Commission to consider "alternatives" to both the replacement of gas infrastructure and the use of natural gas, as well as cost-effectiveness of any such alternative(s). SB 548 will also help lower the risk of Maryland ratepayers spending on uneconomic capital assets that may become stranded in the future as the State moves towards electrification. The adoption of SB 548, thus, will not only improve pipeline safety, but will promote the reduction of natural gas consumption and the conservation of energy resources as well.

For further information contact Ryan Washington, Government Affairs Manager, Maryland, AOBA, at rwashington@aoba-metro.org or Kevin Carey, Vice President of Operations, AOBA Alliance, Inc. at 202-296-3390 Ext. 767 or kcarey@aoba-metro.org

SB 548 Earthjustice Support Comments.pdf
Uploaded by: Susan Miller
Position: FAV

EARTHJUSTICE

February 14, 2024

Chair Brian J. Feldman
Members of the Senate Education, Energy, and the Environment Committee

Re: Earthjustice **support** of SB 548:
Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)

Earthjustice[1] strongly supports the passage of SB 548, the Ratepayer Protection Act. The Ratepayer Protection Act modifies and improves Maryland's gas pipeline infrastructure replacement program (referred to as Strategic Infrastructure Development and Enhancement or "STRIDE") to better reflect the State's changing energy landscape and Maryland's climate mandates.

In 2013, the Maryland General Assembly enacted the STRIDE statute which authorizes Maryland gas utility companies to file and the Public Service Commission to approve infrastructure investment plans and corresponding cost-recovery schedules. It is important for the Committee to understand that STRIDE is not a safety program, it is a financing mechanism which allows gas utilities to recover a substantial portion of their gas pipeline replacement expenditures through a monthly surcharge rather than wait for a rate proceeding. The STRIDE law did not establish any new or different safety requirements. STRIDE did not change the utility's obligation to provide safe service, the law simply enables gas utilities to recover funds spent on gas pipeline replacement from ratepayers more quickly.

The Ratepayer Protection Act recognizes that while some spending on gas on infrastructure replacement is certainly necessary and appropriate for safety and reliability, the utilities current wholesale approach to infrastructure replacement is largely unconnected to safety considerations but is instead apparently designed to maximize utility profits. This disconnect was clearly demonstrated in Baltimore Gas & Electric Company's ("BGE") most recent rate case.

During BGE's rate proceeding, BGE's own testimony established that the Company uses informal, undocumented processes for gas pipeline project selection. Remarkably, BGE has no written documentation regarding how specific projects are selected for inclusion in the STRIDE program. According to BGE's witness, the Company considers a variety of factors and uses engineering judgement to determine which projects are ultimately considered for replacement. The Company does not have specific documents or procedures directing employees on how to select a project. BGE provided a list of 12 *unprioritized* factors that may be considered. Thus,

[1] Earthjustice is a non-profit public interest environmental law organization that represents other non-profits free of charge. Earthjustice uses the power of law and the strength of partnerships to advance clean energy, combat climate change, protect people's health and preserve magnificent places and wildlife.

BGE concedes that replacing leaky pipes is not even a priority over other factors. Equally disconcerting, BGE does not identify specific assets for replacement more than a year in advance. This lack of process means that there is no transparency regarding how the selections were made and whether better choices could have and should have been made.

Moreover, BGE seeks to replace all its gas infrastructure assets under the scope of the program, regardless of relative risk and cost comparisons. A goal of the STRIDE program should be to maximize safety, reliability, and environmental benefits for the ratepayer dollars spent. Instead, BGE plans to spend up to a given cap per year on as much pipeline replacement as it can achieve in that timeframe.

Finally, since pipeline replacement is the only action considered by the gas utilities, the companies apparently never seriously contemplate any alternatives to pipeline replacement, such as pipeline repair and non-pipeline alternatives. These alternatives would be more cost-effective and engender less risk of stranded costs. Gas pipeline replacement programs are expensive, install long-lived assets, and are built on the assumption that the gas system's future needs will be the same or very similar to the system's present needs, an assumption that is clearly at odds with the State's changing energy landscape and Maryland's climate mandates.

Cost-effective alternatives can meet safety and reliability needs of ratepayers while reducing stranded cost risk. However, in PSC proceedings gas companies fail to even identify those alternatives—let alone consider pursuing them. This failure means that ratepayers will pay more for improvements in safety and reliability than they would have had the utilities considered options other than replacing pipes. The utilities failure to consider any alternatives to pipeline replacements, which locks in place costly and long-lasting infrastructure, is not in the public interest.

For example, fixing pipes can often be a lower-cost alternative to replacement. But fixing pipes is not profitable for the utilities because fixes are operational costs, not capital investments on which utilities earn a profit. Because STRIDE only allows accelerated cost recovery for replacement projects that earn a return, the law has inadvertently disincentivized utilities from repairing pipes rather than replacing the pipes.

Without significant changes to the STRIDE program, Maryland gas utilities are on track to spend tens of billions of dollars **replacing their entire local distribution systems** and expanding pipeline capacity. BGE is approximately eight years into its gas pipeline replacement plan, which is expected to be completed around 2039. In 2018, BGE received the PSC's approval to spend more than **$720 million** in infrastructure replacement over the five years from 2019-2023.Through 2100, Maryland's three largest gas utilities are projected to spend $34.5 billion on capital investments. Based on current regulatory treatment, the utilities' customers would be on the hook for $125 billion for this spending once the utilities profits are included in the costs. The failure to interpret the STRIDE program as a method to incentivize the replacement of the leakiest, riskiest gas pipes will saddle Maryland ratepayers with millions of dollars in stranded costs that would take decades to repay.

Adoption of the Ratepayer Protection Act will return the STRIDE program to what it was originally intended to achieve, ensuring the safety of the gas system. Moreover, requiring the utilities to compare the costs of proposed replacement projects with alternatives to replacement will ensure that safety and reliability is achieved in the most cost-effective manner and will ensure that the program's operation is consistent with Maryland's climate mandates.

Finally, Earthjustice thanks Senator Sydnor for his leadership on this important issue.

Earthjustice strongly urges a favorable report for SB 548.

Thank you in advance for your support. Should you have any questions, please contact me at smiller@earthjustice.org.

Respectfully submitted,

Susan Stevens Miller
Senior Attorney, Clean Energy Program
Earthjustice

SB 548 Natural Gas_Strategic Infrastructure Develo
Uploaded by: Tammy Bresnahan
Position: FAV

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SB 548 Natural Gas - Strategic Infrastructure Development and Enhancement - Surcharge and Plans (Ratepayer Protection Act)
Senate Education, Energy, and Environment Committee
February 15th, 2024

Good Afternoon Chair Feldman and members of the Senate Education, Energy, and Environment Committee I am Tammy Bresnahan, Senior Director of Advocacy for AARP Maryland. AARP, which advocates for the more than two million Marylanders age 50 and older supports SB 548 Natural Gas Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act).

SB 548 alters the purpose of the process for authorizing the Strategic Infrastructure Replacement (STRIDE) surcharge process. The intent of this bill is to promote gas infrastructure improvements in the state, when necessary and appropriate to ensure the safety of gas system and to provide consistency with State climate policy.

SB 548 requires the utility to file a plan with the Public Service Commission (PSC), that plan must include:

- a description of each eligible project, including the project's expected useful life;
- a demonstration that the gas company has selected and given priority to projects based on risk to the public and cost-effectiveness;
- an analysis that compares the costs of proposed replacement projects with alternatives to replacement, including (1) leak detection and repair and (2) the targeted retirement or abandonment of portions of the gas system in conjunction with electrification; and
- a plan for notifying customers affected by proposed projects at least two years in advance of construction to allow customers the opportunity to electrify.

As you may know AARP Maryland has been opposed to STRIDE since 2012 when it was first introduced to the Maryland General Assembly. To date, over $1.5 billion STRIDE projects has been approved by the PSC. Residential gas distribution rates have already climbed in a few short years.

Home energy costs make up a sizable portion of household budgets. In Maryland, 41% of the 400,000 low-income households are older adults 60 and older. Since the pandemic, residential prices for natural gas, electricity, and fuel oil have increased significantly.

About one out of four cases, low-income older households whose income is less than $16,000 a year devote 15 percent or more of their income to home energy bills. Too often low-income seniors face heat and eat decisions, even in Maryland.

For many older people in low- and moderate-income households, high and unpredictable home energy prices jeopardize stable home heating and cooling.

AARP believes state regulators should devise cost-allocation methods that appropriately assign the cost of power supply, transmission, distribution costs, and accelerated depreciation expenses fair and equitable. Such methods should be consistent with universal service and affordability goals.

- Regulators should ensure that all beneficiaries share the responsibility for paying joint and common costs based on a user-pays principle.
- 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.

AARP is working hard to ensure that Marylanders can age in place without going broke. We respectfully request a favorable report on SB 548. If you have questions, please contact Tammy Bresnahan at tbresnahan@aarp.org or by calling 410-302-8451.

SB528 Written Testimony 2024.pdf
Uploaded by: Zoe Gallagher
Position: FAV

Testimony to the Education, Energy, and the Environment Committee
SB548 Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)
Position: Favorable

2/15/2024

The Honorable Senator Feldman, Chair
Education, Energy, and the Environment Committee
2 West, Miller Senate Office Building
Annapolis, MD 21401

Chair Feldman and Honorable Members of the Committee:

Economic Action Maryland (formerly the Maryland Consumer Rights Coalition) is a people-centered movement to expand economic rights, housing justice, and community reinvestment for working families, low-income communities, and communities of color. Economic Action Maryland provides direct assistance today while passing legislation and regulations to create systemic change in the future.

I am writing today to urge your favorable report on SB528, which reforms the Strategic Infrastructure Development and Enhancement (STRIDE) program and codifies recommendations from the Maryland Commission on Climate Change and the Building Energy Transition Implementation Task Force.[1]

Despite requirements for new buildings to reduce reliance on natural gas, Maryland's utility companies continue to develop new and expensive natural gas infrastructure on the consumer's dime. This is due to the multi-billion dollar funding utility companies receive from customers through the STRIDE program. As this committee has worked to establish mandated climate goals, it only makes sense to ensure that policies pre-dating this legislation are updated so that they continue to align with the current climate priorities of our state. Consumers should not be unknowingly funding infrastructure development that is antithetical to Maryland's climate goals, especially when three in four Marylanders support local and state governments taking action against climate change.[2]

Outside of environmental factors, SB548 would require utility providers to use a "fix it first" approach to faulty gas lines, rather than building costly new infrastructure. SB528 would also end the reckless overspending of consumer dollars by requiring utility providers to prioritize cost effectiveness. Energy companies under STRIDE are currently held to no standards when it comes to spending, which is a problem considering consumers are the main funders of these projects. As STRIDE raises gas bills both in the short term and long, while 18% of Marylanders are burdened by high energy bills,[3] it is imperative that these companies are held accountable for prudent spending.

For these reasons, we urge your favorable report on SB528.

Sincerely,
Zoe Gallagher, Policy Associate

[1] https://pirg.org/maryland/articles/end-the-gas-utility-blank-check/
[2] https://mde.maryland.gov/programs/pressroom/Pages/ClimateChangeishappening.aspx
[3] https://www.psehealthyenergy.org/over-18-percent-of-maryland-households-are-burdened-by-high-energy-bills/

MD 2024 SB 548 Columbia Gas Testimony Final.pdf
Uploaded by: Carville Collins
Position: UNF

Columbia Gas of Maryland
A NiSource Company

OPPOSE – Senate Bill 548
Changes To The Strategic Infrastructure Development and Enhancement Act of 2013
Senate Education, Energy and Environment Committee

Columbia Gas of Maryland, Inc. opposes Senate Bill 548, which alters what is commonly referred to as the Strategic Infrastructure Development and Enhancement Act, or STRIDE Act, of 2013 for natural gas utility companies.

In 2012, in the wake of several serious pipeline incidents in the United States, the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) issued "A Call to Action" for all pipeline stakeholders, including the natural gas companies and their regulators, to identify pipeline risks and accelerate the replacement of the highest risk infrastructure. At that time, individual states like Maryland examined the need to accelerate the replacement of high-risk pipe to ensure public safety and the reliability of our critical pipeline infrastructure into the future.

In 2013, the Maryland General Assembly passed and Governor Martin J. O'Malley signed the STRIDE law to encourage gas utilities to accelerate replacement of certain aging gas infrastructure by allowing for partial recovery of infrastructure investment costs through a forward looking recovery mechanism. The STRIDE legislation is explicitly intended to spur utility investment to replace aging infrastructure to improve reliability of Maryland's gas systems and maintain safety.

PHMSA's call to action that culminated in Maryland with the STRIDE law should not be forgotten or ignored. Since the inception of the program in 2013, the gas companies have designed their STRIDE programs specifically around increasing safety and reliability, seeking to recover costs associated with replacing or improving "eligible infrastructure", which the statute defines as: infrastructure that is replaced or improved after June 1, 2013; **is designed to improve public safety or infrastructure reliability**; does not increase the revenue of a gas company by connecting an improvement directly to new customers; **reduces or has the potential to reduce greenhouse gas emissions through a reduction in natural gas system leaks**; and is not included in the current rate base of the gas company as determined in the gas company's most recent base rate proceeding.

Gas company STRIDE programs have been reviewed and approved by the Public Service Commission (PSC) and have benefited the environment by reducing the number of methane leaks due to the eligible infrastructure that has been replaced, and future STRIDE programs will likewise further reduce methane leaks to the benefit of the environment.

Any assertion that Maryland gas utilities should change their planning processes for infrastructure replacement given unresolved energy policies is not based in fact, is contrary to federal policy from PHMSA and potentially adversely affects gas company efforts to provide safe and reliable gas service to our customers and to communities where they reside. Moreover, since STRIDE encourages the acceleration of pipeline replacement, the gas companies are achieving material greenhouse gas emission reductions through leak reduction and prevention under STRIDE, an environmental benefit supporters of changing STRIDE seek to undermine with such efforts.

Advocates for changing STRIDE do not have specific expertise in pipeline safety, specific knowledge of individual company systems, nor do they have engineering expertise to determine what pipes should be replaced and when. In this regard, Columbia notes the provision of SB 548 requiring two years of advance notice to customers of STRIDE projects (p. 3, lines 14-16) is wholly unworkable and unrealistic.

In order to preserve and protect public safety, projects recovered through STRIDE are approved by the PSC on an annual basis. Notification of projects two years in advance would require companies to notify customers of projects not yet approved by the PSC. Further, gas companies repair pipelines on the basis of the highest risk pipe, and a two-year notification requirement jeopardizes a gas company's ability to replace the highest risk pipe on its system given the dynamic nature of pipeline replacement. A two-year notice requirement calls for gas companies to "crystal ball" projects instead of choosing projects based on the necessity of replacement to achieve both leak and risk reduction and maximize public safety.

Neither the Climate Solutions Now Act nor any of the ongoing greenhouse gas (GHG) policy decisions have altered gas companies' continuing obligation to provide safe and reliable service to Maryland residents located in our service territories. Therefore, Columbia remains committed to fulfilling its obligation to provide natural gas delivery service to those customers that request to initiate or wish to continue to receive natural gas delivery service.

The PSC recently opened a docket at Case No. 9707. This case stems from the Petition of the Office of People's Counsel (OPC) for Near-Term, Priority Actions and Comprehensive, Long-Term Planning for Maryland's Gas Companies ("Petition"), to investigate the future of energy in Maryland. While Columbia does not support the OPC's stated positions and recommendation in its Petition, Columbia looks forward to participating in the proceeding given our role as the natural gas distributor to the residents and businesses of Western Maryland.

Columbia respectfully submits that a robust investigation by the PSC in Case No. 9707 should be expanded to holistically and comprehensively consider Maryland's total energy needs – including technical, economic, and feasibility issues relating to electrification. Such an undertaking will enable the PSC and all stakeholders to address the need for continued investment in gas infrastructure in relation to overall energy adequacy, cost, and feasibility, and to layout proposals for any legislative or regulatory changes necessary to meet the policy objectives of the State of Maryland.

The PSC is an independent state agency, with a long track record of gathering expert information and adjudicating outcomes that are in the public interest, based on a factual record built through due process, testimony and other evidence from parties in docketed proceedings. The PSC and its docketed Case No. 9707, not the General Assembly, is the appropriate forum to make recommendations and decisions on STRIDE.

Consequently, Columbia cannot support SB 548 as appropriately crafted policy on pipeline safety and therefore urges an unfavorable report.

February 15, 2024

Contact:
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Contact:
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BGE_EEE_OPP_SB548_ Natural Gas - Strategic Infrast

Uploaded by: Guy Andes

Position: UNF

bge
AN EXELON COMPANY

Position Statement

Oppose
Education, Energy, & Environment
2/15/2024

Senate Bill 548- Natural Gas – Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)

Baltimore Gas and Electric Company (BGE) opposes *Senate Bill 548- Natural Gas – Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act).* Senate Bill 548 requires gas companies to include certain descriptions, demonstrations, analyses, and notifications in filings for proposed eligible infrastructure replacement projects to the Public Service Commission (PSC). It also alters the requirements for the Commission to approve a certain infrastructure replacement plan.

Senate Bill 548 explicitly aims to slow the replacement of aged and leak-prone gas infrastructure and deviate from the General Assembly's intent of accelerating replacement to mitigate public safety risks and reduce greenhouse gas emissions through utility Strategic Infrastructure Development and Enhancement (STRIDE) programs. The Pipeline and Hazardous Materials Safety Administration (PHMSA), a United States Department of Transportation agency, has been very clear through the years that aging infrastructure, specifically cast iron and bare steel, needs to ultimately be eliminated from the nation's gas systems. PHMSA has issued a "call to action", various bulletins, comments, and even rulemakings that urge natural gas energy providers and States to address and replace certain materials like cast iron and bare steel. More recently, PHMSA has begun to focus on low-pressure systems. In fact, PHMSA tracks States' progress of replacing some of these materials given the safety risks. The data shows Maryland still lags behind other States, as it has been more than 1/3 slower than the national average in replacing cast iron infrastructure over the last five years, despite being recognized as having among the larger populations of cast iron. This is important because PHMSA's data confirms that more than 75% of leaks on the gas distribution system are from cast iron and bare steel piping. As the natural gas distributor for approximately 700,000 customers, BGE remains steadfast in its commitment to take proactive measures to reduce safety risks and to deliver reliable energy.

In addition to safety enhancements, gas infrastructure replacement has led to significant environmental benefits that support Maryland's Climate Solutions Now Act. BGE is currently authorized by the PSC to replace over 120 miles of outmoded pipe over 3 years, which will reduce carbon emissions by 1 million metric tons over their lifetime. It is critical to replace aged infrastructure with new durable piping to achieve a cost-effective reduction in greenhouse gas emissions. Additionally, the gas infrastructure can be used for renewable energy storage and the delivery of renewable gases derived from biogenic sources and zero-carbon electricity. An independent study conducted by Energy + Environmental Economics (E3) demonstrated that an integrated energy system is the most feasible and cost-effective path to reach net-zero greenhouse gas emissions by 2045. This position has been reinforced at the federal level with the Biden-Harris Administration launching a $1 billon Infrastructure Law Program that aims to improve the cost-

effectiveness of energy generation, transmission, and distribution while reducing greenhouse gas emissions. $200 million has already been granted to utilities doing gas infrastructure replacement work.

Senate Bill 548 places an unrealistic requirement of notifying customers 2-years in advance before beginning a critical infrastructure replacement project so that customers can electrify their homes. BGE currently provides advance notification and works with customers who express their intent to electrify, though incredibly scarce. There is nothing preventing customers from electrifying today. As a regulated utility and trusted energy provider, we are responsible for delivering a safe and efficient energy system to all customers, including those who cannot afford to electrify. Even if there is only 1 customer on a street who is unable to electrify, BGE must maintain the gas system accordingly to deliver reliable service and to ensure public safety for all.

Finally, the Commission has docketed a proceeding (Case No. 9707) in response to the petition of the Maryland Office of People's Counsel related to near term priority actions and comprehensive long-term planning for Maryland's gas companies. Concerns about utility planning for the gas distribution systems of the future, including concerns about investments under utility STRIDE programs, are appropriate for consideration in Case No. 9707 so that a more holistic approach can be taken instead of focusing on the specific segments of the systems.

BGE remains committed to supporting the energy evolution and to helping Maryland reach its climate goals in the most affordable, efficient, and effective method possible, without compromising safety.

BGE respectfully requests an unfavorable report on Senate Bill 548 as introduced. We look forward to continuing conversations with the bill sponsor and all stakeholders involved.

Washington Gas SB548 STRIDE Oppose Testimony.pdf
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COMMITTEE: EDUCATION, ENERGY, AND THE ENVIRONMENT

TESTIMONY ON: SB 548 NATURAL GAS - STRATEGIC INFRASTRUCTURE DEVELOPMENT AND ENHANCEMENT (RATEPAYER PROTECTION ACT)

POSITION: OPPOSE

HEARING DATE: FEBRUARY 15, 2024

Washington Gas respectfully submits this statement in **OPPOSITION** to **Senate Bill 548 - Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)**

Washington Gas was founded in 1848 by Congressional Charter and is marking its 175th year of providing affordable, safe, and reliable natural gas service and currently serves more than 500,000 Maryland customers in Montgomery, Prince George's, Charles, St. Mary's, Frederick, and Calvert Counties and 1.2 million customers across its entire service area. Washington Gas employs over 400 people within Maryland, including contractors, plumbers, union workers, and other skilled tradespeople. We strive to improve the quality of life in our communities by maintaining a diverse workforce, working with suppliers that represent and reflect the communities we serve, and giving back through our charitable contributions and employee volunteer activities. The Company, together with other natural gas distribution utilities, are responsible for delivering the primary source of heat to Maryland residential energy consumers, serving approximately one half of all Maryland households while providing critical energy services to residential, commercial, and industrial customers.

Senate Bill 548 ("SB 548") seeks to fundamentally change the STRIDE program by dramatically changing the purpose of safety and reliability of gas infrastructure in Maryland. In 2013, the Maryland General Assembly enacted SB 8/HB 89 Strategic Infrastructure Development and Enhancement Plan ("STRIDE Legislation" or "STRIDE") in response to increasing concerns about threats to public safety due to aging gas infrastructure throughout Maryland.

Since its passage in 2013, STRIDE has been successful at and solely focused on improving the safety and reliability of Maryland's natural gas infrastructure, while providing ancillary economic and climate benefits to the State. SB 548 would halt the significant progress that Maryland has made in this regard. STRIDE is first, most and always a safety program. The Company's STRIDE investments do not add new customers to our system or increase the capacity of existing gas infrastructure. STRIDE must continue to serve its original purpose: enabling gas utilities to proactively invest in their infrastructure to enhance system and public safety.

In 2011, following several fatal pipeline accidents, including a gas line explosion that killed five (5) people in Allentown, PA, the United States Department of Transportation ("DOT") and DOT's Pipeline and Hazardous Materials Safety Administration ("PHMSA") announced a nationwide "Call to Action," a pipeline safety action plan to repair and replace aging pipelines to prevent hazardous pipeline incidents.[1] In 2013, the Maryland legislature and the Maryland Public Service Commission ("Commission") aligned on the need to respond to this call to action by passing the STRIDE legislation to allow for gas utilities to accelerate investments into aging pipelines to improve system safety and reliability and proactively prevent major incidents, like what happened in Allentown. Even as Maryland works to meet its climate goals and transitions to a new energy environment, the highest risk pipes on the Company's distribution system cannot be ignored. The primary focus of these investments is to enhance the safety and reliability of the gas system infrastructure; this should continue to be the purpose of the STRIDE program, as relatively higher risk areas of the gas distribution network are still being prioritized and approved by the Commission for proactive replacement in accordance with prudent utility best practices. Maryland is not the only state with a proactive pipe replacement and management program; 41 total states and the District of Columbia have developed mechanisms to encourage gas utilities to replace older or problematic infrastructure within their distribution systems.[2]

Safety

STRIDE's primary mission is to support safety and reliability improvements of aging gas infrastructure. Maintaining the safety and reliability of the system requires proactive and planned system maintenance, as well as a readiness to respond to emergent or emergency situations. Washington Gas currently maintains a safe and reliable gas system in full compliance with all federal, state, and local regulations. STRIDE provides the Company the financial and regulatory certainty necessary to replace relatively higher risk pipe earlier than it could be replaced if the Company were limited to recovering related costs using the traditional base rate case process. While under either scenario the Company will maintain and operate a safe and reliable system, with STRIDE, the Company can replace relatively higher risk pipe years earlier than the traditional replacement programs. STRIDE allows Washington Gas to be more proactive.

Washington Gas's STRIDE plans from 2014-2023 have materially enhanced the safety and reliability of our Maryland transmission and distribution systems, consistent with the objectives of the STRIDE statute, by enabling the accelerated replacement of relatively higher risk facilities identified and approved through annual project lists. Through 2022, the Company has replaced 140.9 miles of main and remediated 30,616 affected services with investments approved under the STRIDE program.

[1] U.S. Department of Transportation. U.S Transportation Secretary Ray LaHood Announces Pipeline Safety Action Plan (Apr. 4, 2011).
[2] National Association of Regulatory Utility Commissioners. Natural Gas Distribution Infrastructure Replacement and Modernization: A Review of State Programs (Jan. 2020). See page 8

STRIDE works. Between 2019 and 2022, Washington Gas experienced a 45% overall reduction of leaks in Maryland, comprised of 45% reduction of leaks on mains and 46% on services.[3] Federal regulations requiring the establishment of gas Distribution Integrity Management Programs ("DIMP") are designed to focus an operator on the identification of risk and the measurement and continuous improvement of distribution system performance to enhance pipeline integrity and system safety. DIMP-driven accelerated replacement of eligible infrastructure through the STRIDE 2 Plan over this period reduced corrosion leaks by 51% and pipe, weld, or joint leaks by 44%.[3]

Leaks and the potential for leaks impact safety and reliability; observed or suspected leaks is one of the factors that dictates how different pipe segments are prioritized for replacement. The potential for leaks due to at-risk pipe materials (e.g., bare and unprotected steel, cast iron), as well as mechanically-coupled mains and services, also contributes to the identification and prioritization of at-risk infrastructure.

Recently the Public Service Commission approved the Company's STRIDE 3 Plan, which includes a new Low Pressure program. The Low Pressure program focuses resources on geographical work zones to maximize risk reduction and capital deployment. Low pressure areas tend to be composed of the oldest and most leak-prone pipeline materials. For instance, water pipe leaks and water intrusions in and near lower pressure areas of the network are of concern if the system's pressure is too low to keep out water. In some cases, water can breach lower pressure areas of the network and flow into homes or buildings through the gas lines, damaging critical household appliances, such as furnaces or water heaters.

Maintaining the safety and reliability of the system will always be a top priority for Washington Gas and the Company will always prioritize the safety and integrity of the system regardless of STRIDE. STRIDE is important, however, because it accelerates the replacement of leak-prone pipe compared to what would otherwise be possible to fund without accelerated cost recovery. Without STRIDE, the pace of replacement will return to a pace aligned with base-rate recovery, which the General Assembly has recognized is not in the public interest.

Economic Impacts

STRIDE provides significant economic benefits to customers and Maryland's economy. STRIDE has created a demand for skilled, full-time, career jobs. STRIDE is critical to ensuring the Washington Gas's ability to initiate planned work on a proactive basis, thereby creating the potential to reduce or avoid emergent and emergency work and any attendant hazards. In addition to its safety benefits, one of the primary economic benefits of STRIDE is that the program allows Washington Gas to cost-effectively plan and complete system maintenance activities. More specifically, maintaining the safety of the gas distribution system requires consistent, substantial work to survey, monitor, and repair gas leaks, in addition to the efforts that must be undertaken to address numerous operating and maintenance procedures required to keep the system safe. When

[3] Washington Gas Light Company. Application for the Approval of a New Gas System Strategic Infrastructure Development and Enhancement Plan ("the STRIDE 3 Plan") and Accompanying Cost Recovery Mechanism. (Public and Confidential) Case No. 9708 (Jun. 16, 2023). Witness Murphy Testimony Page 14

an emergent condition occurs that must be addressed on an emergency basis, the Company must deploy its resources to investigate and resolve the issue. This drives recurring operating and maintenance expenses on the system, which are critical to maintaining service, as the condition of the infrastructure continues to decline. When we can proactively plan system maintenance, we have a greater opportunity to manage costs and implement replacements on the system efficiently, thus insulating customers from rising service costs.

Washington Gas's replacement work also creates economic benefits for the State of Maryland through job creation and property tax payments to municipalities, and the construction labor and expertise required to complete pipe repair and replacement work has resulted in significant direct, indirect, and induced job creation. In April 2023, Washington Gas commissioned Towson University's Regional Economic Studies Institute (RESI) to study the economic benefits of our recently approved STRIDE plan. According to the RESI study, by the end of 2028, investments through Washington Gas's STRIDE plan from 2024 through 2028 are expected to generate more than $800 million in state GDP, and boost employment by nearly 4,000 person years that will pay $277 million in salaries, wages, and benefits. RESI concluded that activity and income created by the STRIDE plan is expected to result in $22.3 million in state taxes and $15.7 million in tax revenues, shared across all Maryland counties.

Maryland anticipates an escalating budget deficit over the next four (4) years, with the deficit projected to reach more than $1.8 billion in 2028.[4] Maryland has considerable spending plans, such as ~$500 million in funding to finance necessary building upgrades to comply with the State's Building Energy Performance Standards,[5] and the sizeable deficit that is being projected will create serious economic challenges for the State. The benefits that the STRIDE program provides to Maryland, including tax revenues used to fund State programs, will be crucial for the State to avoid significant economic hardships. These economic benefits to Marylanders would be compromised by the fundamental changes that SB 548 would make to the STRIDE program.

Reduction in GHG Emissions

The reduction in GHG emissions associated with STRIDE investments (e.g. reduction in leaks) is consistent with the State's policy objectives and supports the achievement of its' 2031 and 2045 GHG emissions reduction targets. STRIDE continues to reduce GHG emissions. Natural gas leaks result in methane releases into the atmosphere. For this reason, reducing natural gas leaks, and thereby reducing methane released into the atmosphere, is an important customer and public benefit associated with addressing leaking and aging infrastructure. From the beginning of STRIDE through December 31, 2022, Washington Gas has reduced GHG emissions associated with the operation of the distribution system by an estimated total of 105,199 metric tons ("MT") of carbon dioxide equivalent ("CO2e"), comparable to removing approximately 22,513 gasoline-powered cars from the road over the program duration. The Company estimates that the projects proposed within its 2024-2028 STRIDE filing will reduce GHG emissions associated with the

[4] Maryland Matters. Five-year budget picture has legislators weighing cuts, taxes other options (Nov. 8, 2023).
[5] Building Energy Transition Implementation Task Force. Final Report of the Building Energy Transition Implementation Task Force (Jan. 24, 2024). The Report states that approximately half of these necessary costs are financeable (page 12), meaning that the State would be accountable for funding the other half.

operation of the distribution system by approximately 32,022 MT CO2e, comparable to removing approximately 6,853 gasoline-powered cars from the road over the program's duration.[6]

Conclusion

At Washington Gas, our core values are safety, collaboration, integrity, inclusion, and learning. Maintaining and enhancing the safety, reliability, and resiliency of our energy supply and delivery remains critically important.

The safe and reliable delivery of energy is vital to the Maryland economy. Our STRIDE program ensures that our system continues to deliver energy to customers in a safe and reliable manner. Amending the STRIDE program in the manner proposed in SB 548 undermines the General Assembly's stated goal of enhancing the safety of Maryland's natural gas system by changing the focus of the program away from its intended purpose. Infrastructure that presents a high risk to Marylanders must continue to be replaced at an accelerated pace. Our continued investment through STRIDE positions us to keep a proven track record of providing safe service to Marylanders for many years to come.

For the above reasons Washington Gas respectfully requests an unfavorable vote on Senate Bill 548. Thank you for your consideration of this information.

Contact:
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[6] On December 13th, 2023, the Maryland Public Service Commission approved Washington Gas' STRIDE filing with modifications, pending approval by the Commission of actual projects from WGL's November 1, 2023 Project List, with an anticipated reduction in the associated STRIDE surcharge of at least one-third over the five-year term. The amount of emissions reductions achieved by the approved filing will depend on the number and type of projects that receive approval from the Commission.

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Position: UNF

February 14, 2024

SENATE EDUCATION, ENERGY and ENVIRONMENT COMMITTEE
SB 548 – Natural Gas – Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)

Statement in Opposition

Chesapeake Utilities Corporation ("Chesapeake Utilities") respectfully **OPPOSES** certain provisions contained in SB 548. Among other things, SB 548 alters the requirements for the Maryland Public Service Commission to approve certain infrastructure replacement projects under the Strategic Infrastructure Development and Enhancement ("STRIDE") Act of 2013 for natural gas companies. The bill also seeks to circumvent an on-going comprehensive proceeding before the Maryland Public Service Commission.

Chesapeake Utilities operates natural gas local distribution companies that serve approximately 32,000 customers on Maryland's Eastern Shore in Caroline, Cecil, Dorchester, Somerset, Wicomico, and Worcester Counties. These public utilities are regulated by the Maryland Public Service Commission and have provided in the coldest months of the year safe, reliable, resilient, and affordable service in the State for decades. As a company, Chesapeake Utilities serves as a positive and informed resource in the State's ongoing energy discussions.

The premise of SB 548 is flawed. The bill requires gas companies to notify their customers 2 years in advance of a STRIDE replacment project so its customers have an opportunity to electrify. To be clear, any customer can choose to electrify their homes at any time, so Chesapeake Utilities is unclear on the need for this provision. In addition, the bill directs gas companies to compare the cost of a STRIDE project to the cost of abandoning a portion of their own system. Gas companies have an obligation to serve customers. It is unclear why the bill suggests gas companies should consider abandoning their systems or what useful benefit would be gained by such a comparison.

SB 548 deviates from the General Assembly's intent with STRIDE. In 2013, the Maryland General Assembly passed and Governor Martin J. O'Malley signed the STRIDE law to encourage natural gas utilities in the State to accelerate replacement of certain aging gas infrastructure by allowing for partial recovery of infrastructure investment costs through a forward looking recovery mechanism. It is important to note what STRIDE is and what it is not. STRIDE allows for *contemporaneous* recovery of a small portion of the cost incurred by a natural gas utility as it performs the replacment work. STRIDE does NOT allow for advanced recovery of all pipeline replacment costs before the infrastructure is in service. This legislation was specifically passed in response to the United States Department of Transportation's Pipeline and Hazardous Materials Safety Administration ("PHMSA) issued "Call to Action". PHMSA directed all pipeline stakeholders in the nation, including Maryland's natural gas utilities and their regulators, to identify and replace certain aging infrastructure, specifically cast iron and bare steel. PHMSA's position realting to this aging infrastructure has not changed. As especially relevant here, PHMSA ranks

Maryland behind other states in the replacement of aging infrastructure. As such, SB 548 deviates from the General Assembly's 2013 intent with STRIDE and PHMSA's call to action.

SB 548 alternatives to pipeline replacement impact safety and reliability. SB 548 explicitly aims to slow the replacement of aging infrastructure, which could impact the safety and reliability of the State's natural gas systems. As stated above, PHMSA's intent is to completely eliminate cast iron and bare steel from the nation's natural gas systems. However, SB 548 requires an analysis that compares the costs of proposed replacement with alternatives to replacement, such as "leak detection and repair" or "targeted retirement or abandonment" and notice "at least 2-years in advance of construction." There is no support or explaination for this arbitrary 2-year advanced notification requirement and why it is necessary or if it is even workable for the natural gas utilities. These provisions will only further delay the elimination of cast iron and bare steel from the State's natural gas systems, which is in direct conflict with PHMSA's call for the safety and reliability of the natural gas system.

The Public Service Commission has authority over STIDE. Natural gas companies STRIDE programs have been reviewed and approved by the Maryland Public Service Commission ("PSC"), with very specific requirements for replacement of aging infrastructutre. These requirements include the replacement of infrastructure that is designed to improve public safety or infrastructure reliability; does not increase the revenue of a gas company by connecting an improvement directly to new customers; reduces or has the potential to reduce greenhouse gas emissions through a reduction in natural gas system leaks; and is not included in the current rate base of the gas company as determined by the PSC in the gas company's most recent base rate proceeding. Advocates supporting SB 548 do not have specific expertise in pipeline safety, specific knowledge of individual gas company natural gas systems, nor do they have the engineering expertise of the PSC. The PSC is an independent State agency with a long record of gathering expert information and adjudicating outcomes that are in the public interest, including the natural gas companies annual STRIDE filings. In addition, the PSC recently opened a docket, Case No. 9707, in response to the Petition of the Office of People's Counsel for Near-Term, Priority Actions and Comprehensive, Long-Term Planning for Maryland's Gas Companies. Any concerns about utility planning for the State's natural gas distribution systems, including STRIDE programs, are already under consideration in Case No. 9707 so a holistic and comprehensive review of the gas systems can be adjuicated by the PSC.

On behalf of Chesapeake Utilities Corporation, and our thousands of employees and their families who deliver energy safely and contribute every day in the communities where they live, work and serve, we respectfully request an unfavorable vote on SB 548.

Sincerely,

Chesapeake Utilities Corporation
Steve Baccino, Governmental Affairs Director
Contact: sbaccino@chpk.com

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Position: INFO

STATE OF MARYLAND

PUBLIC SERVICE COMMISSION

February 14, 2024

Chair Brian Feldman
Senate Education, Energy and Environment Committee
2 West, Miller Senate Office Building
Annapolis, MD 21401

RE: **SB 548 – Information - Natural Gas - Strategic Infrastructure Development and Enhancement (Ratepayer Protection Act)**

Dear Chair Feldman and Committee Members:

Strategic Infrastructure Development and Enhancement **(**STRIDE) is a financial instrument that provides an incentive to gas utilities to replace pipe subject to certain goals. The current goal of STRIDE is to accelerate replacement of infrastructure that is considered problematic from a safety/reliability and leak perspective. SB 548 amends the goal of STRIDE to align both improving safety and meeting the State's climate goals. In addition to safety and State climate policy, the Commission must also consider the availability of natural gas alternatives when approving a STRIDE plan. SB 548 also requires additional analysis within a proposed STRIDE plan, such as consideration of alternatives to replacement of pipe and retirement/abandonment of the gas system in conjunction with electrification. Taken together these modifications may reduce the infrastructure eligible for the STRIDE financial incentive. If a gas utility views implementation of a STRIDE program under this law as burdensome, they can choose to not use STRIDE and do the work without the financial benefit afforded by STRIDE.

The legislature should consider if STRIDE is the appropriate venue to obligate gas utilities to promote electrification. SB 548 requires a utility STRIDE plan to provide analysis that considers retirement or replacement of the gas system in conjunction with electrification and requires the gas utilities to give customers two-years notice of proposed projects to give customers an opportunity to electrify. Most of the gas utilities in Maryland are investor owned and do not have an electric business; it is not in their business interest to promote their competition. Additionally, it is unclear how a gas only utility would have the appropriate information to develop and estimate the cost of an electrification plan with accuracy. The Commission has an active docket, Case No. 9707, where these ideas can be explored before legislation is enacted on this or other areas impacting the future of natural gas utilities.

The two-year notice period for customers to consider electrification may be operationally problematic for utilities. The legislation should consider if a shorter period would still afford

customers an appropriate amount of time to consider and implement electrification measures while also allowing the utilities to conduct their work.

Finally, SB548 adds a new requirement for the Commission to find that there will be cost-effective natural gas alternatives. STRIDE is an infrastructure program, not a supply program. If customers continue to use natural gas, regardless of alternatives, then some form of the gas system will still have to exist. Also, this requirement may be duplicative since the Commission must consider the State's climate policy when approving a STRIDE plan. Like electrification, it may be appropriate to holistically consider natural gas alternatives as a policy for meeting the State's climate goals separate from a STRIDE plan.

The Public Service Commission appreciates the opportunity to provide informational testimony for SB 548. We look forward to working with the sponsor on any recommended changes. Please contact Christina Ochao, Director of Legislative Affairs a christina.ochoa1@maryland.gov if you have any questions.

Sincerely,

Frederick H. Hoover, Chair
Maryland Public Service Commission