**SB0804_FAV_Manuel.pdf**
Uploaded by: Anne Manuel
Position: FAV

**SB0804 - SUPPORT**

Anne Manuel
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**SB0804 - Better Buildings Act of 2025**

Meeting of Education, Energy and the Environment Committee
February 27, 2025

Dear Chair Feldman, Vice Chair Kagan, and Members of the Education, Energy and the Environment Committee,

I am writing to strongly urge a favorable report on SB0804. I have lived in Silver Spring, Maryland for forty years. As someone who is deeply concerned about the existential threat posed by climate change, I regularly volunteer with the Chesapeake Climate Action Network (CCAN) and strongly consider candidates' records on climate change when deciding how to vote.

In addition to helping us to meet the greenhouse gas emission reductions we committed to in the Climate Solutions Now Act, the Better Buildings Act will reduce energy costs and improve public health by requiring all newly constructed buildings to be heated without the use of fossil fuels.

In terms of meeting our climate goals, electrifying all new construction should be a no-brainer. More than half of Maryland's energy-related greenhouse gas emissions come from buildings, 2/5s of that from burning fossil fuels for heating and cooking. Continuing to install gas hookups to new construction would lock us into several more decades of emissions and derail our climate commitments.

Switching to electricity for heating and cooking is becoming increasingly economical with the availability of improved technologies. In trying to do our part for the climate in our 103-year-old house, my husband and I switched to energy efficient heat pumps this year, leading to a noticeable reduction in our heating bills. As everyone on this committee can attest, the early months of 2025 have put any heating system to the test and we have been happy with the outcome. And once summer comes in, our systems become highly effective air conditioners. As soon as our water heater and stove reach the ends of their life spans, we plan to replace them as well with electric appliances.

Research has increased our awareness of the threat to health posed by gas appliances, which emit carbon monoxide, nitrogen dioxide, benzene and formaldehyde into our homes. A study published in the International Journal of Epidemiology found children living in a home with a gas appliance were 42% more likely to develop asthma than those without such exposure. Gas stoves leak chemicals, including the carcinogen benzene, even when turned off. Meanwhile fossil fuel furnaces in Maryland are responsible for three times as much pollution as all the state's power plants combined. Getting fossil fuels out of our buildings makes sense from an economic, health, and climate viewpoint.

Maryland would hardly be an outlier in approving this legislation. Similar laws have been enacted by more than 100 state and local governments, including several Maryland counties.

At a time when our nation's efforts to fight climate change are under assault, Maryland needs to stand firm and meet our commitments. This effort would be a win for the economy and public health as well.

Thank you for the opportunity to bring my concerns to the committee's attention in support of SB0804..

**SB804_Brooks.pdf**
Uploaded by: Benjamin Brooks
Position: FAV

BENJAMIN BROOKS
*Legislative District 10*
Baltimore County

Education, Energy, and the Environment Committee

Energy Subcommittee

Chair, Joint Electric Universal Service Program Workgroup

THE SENATE OF MARYLAND
ANNAPOLIS, MARYLAND 21401

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**TESTIMONY IN SUPPORT OF SB 804**
**Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation, and Electric – and Solar-Ready Standards (Better Buildings Act of 2025)**

Education, Energy and the Environment Committee
February 27, 2025

Chair Feldman, Vice-Chair Kagan, and members of this committee,

Thank you for the opportunity to testify before you on SB 804– The Better Buildings Act of 2025. This bill would require newly constructed buildings and major renovations in Maryland to meet water and space heating demands and laundry needs without the use of costly, health-harming fossil fuels. Additionally, it would also require new buildings to incorporate energy efficiency, ensuring more affordable, comfortable, and resilient homes.

The Better Buildings Act honors the General Assembly's commitment to "move toward [the] broader electrification of… new construction," following a feasibility study[1]. In December 2023, the Public Service Commission (PSC) released that study. The PSC found that a high electrification scenario in the State would only moderately increase the demand in electricity, while significantly reducing the demand on gas. Specifically, the State's electric grid would see a maximum growth of "2.1%," which is comparable to the average growth of Maryland's electric grid over the past 40 years. Additionally, building sector gas demand would be reduced by about 31% by 2031.

After much research and patience, it is time for the General Assembly to act on its promise and pass the Better Buildings Act. The longer we wait to electrify our buildings and make our energy grid cleaner, the harder it will be to make the transition in the future. If passed, SB 804 has four key parts to ensure that our buildings are efficient and wired for the clean energy economy that is forthcoming.

1. The bill requires that all new buildings or significant improvements secure their energy from non-fossil fuel sources. This means that appliances like home furnaces and hot water heaters installed in new construction would have to be electric. In addition, it

[1] codified in the Climate Solutions Now Act of 2022.

allows jurisdictions to make exceptions for back-up generators, cooking stoves, and other buildings that have a demonstrated need for fossil fuels.

2. The bill also requires new buildings to meet energy efficiency requirements according to the International Energy Conservation Code. Specifically, new buildings must achieve a 65% energy efficiency rate if their building permit applications are received after 2033.
3. Another requirement is that all new buildings which have more than 20,000 sq/ft of clear roof space and will be 20 stories or less in height, be solar ready.
4. Lastly, there is an electric ready requirement to ensure that building owners can transition to fully electric buildings when desired with little upfront costs.

SB 804 represents a significant advancement in Maryland's efforts to achieve its climate goals. This bold and ambitious initiative demonstrates the proactive approach necessary to enhance energy efficiency and ensure buildings are prepared for electrification. Since 2022, we have conducted comprehensive studies and carefully considered exceptions to the proposed requirements. Furthermore, this transition will be implemented gradually to ensure proper execution of the new standards, allowing builders the necessary time to adapt and prepare for the shift to all-electric construction.

For these reasons, I am requesting a favorable report on SB 804.

With kindest regards,

Benjamin T. Brooks

Benjamin Brooks

## SB 804 Maryland Building Performance Standards - F

Uploaded by: Cait Kerr

Position: FAV

The Nature Conservancy
Protecting nature. Preserving life.

The Nature Conservancy
Maryland/DC Chapter
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Bethesda, MD 20814

tel (301) 897-8570
fax (301) 897-0858
nature.org

**Thursday, February 27, 2025**

**TO:** Brian Feldman, Chair of the Senate Education, Energy, and the Environment Committee, and Committee Members
**FROM:** Cait Kerr, The Nature Conservancy, State Policy Manager; Michelle Dietz, The Nature Conservancy, Director of Government Relations
**POSITION:** Support SB 804 Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)

The Nature Conservancy (TNC) supports SB 804 offered by Senators Brooks, Benson, and Lewis Young. SB 804 will require new or significantly improved homes and buildings to meet all laundry, water, and space heating demands of the building without using fossil fuels. It also establishes energy conservation requirements and an electric- and solar-ready standard for new or significantly improved buildings that will meet the bill's stated size criteria, with the possibility for a waiver.

This bill is consistent with Maryland's Building Energy Transition Plan developed by the Maryland Commission on Climate Change (MCCC). One of the four core recommendations in this plan is that, "The General Assembly should require the Maryland Building Code Administration to adopt a code that ensures that new buildings meet all water and space heating demand without the use of fossil fuels," and further states that these requirements should include that all new buildings "are ready for solar, electric vehicle charging, and building-grid interaction. This code shall apply to all new residential, commercial, and state-funded buildings beginning as early as possible but no later than 2024." We are already behind on implementing this recommendation and need to take action now to meet our economy-wide emissions reduction commitments. SB 804 also aligns with implementation of the Climate Pollution Reduction Plan. The bill further reflects recommendations from the MCCC's 2024 Annual Plan, including, "The Building Codes Administration should adopt solar-related provisions in the 2024 International Energy Conservation Code," and "New construction – both residential and commercial – codes should be updated to require electrical wiring and panels that are both solar- and EV-ready." Our state has committed to economy-wide emissions reductions and is on a path away from fossil fuels. New and significantly improved construction needs to be sustainable for the future, and electric- and solar-ready construction is better prepared for energy transition.

TNC, as a member of the Mitigation Working Group and the Buildings Sub-Group, provided funding for the Maryland Building Decarbonization Study, which supported the MCCC's Building Energy Transition Plan. This study modeled three potential building decarbonization scenarios and made recommendations for Maryland to achieve deep decarbonization of building end-uses by mid-century, while also analyzing the costs and benefits of each potential pathway. One conclusion from this study was that "All-electric new construction is found to be less expensive considering both equipment and fuel costs than those connecting to gas grid and using fuels for heating." SB 804 also increases emphasis on energy efficiency; reducing electricity demand through efficiency is the most cost-effective way to meet our growing energy needs.

According to the state's Greenhouse Gas Emissions Inventory, buildings sector emissions accounted for approximately 16.6 percent of the state's total greenhouse gas emissions in 2020. This is the third largest

emissions source in our state. The Building Energy Transition Plan is intended to serve as a roadmap for reaching net-zero emissions from residential and commercial buildings by 2045, consistent with the state's commitments under the Climate Solutions Now Act of 2022. SB 804 offers a cost-effective method to put the MCCC's recommendations into action in order to set Maryland on a clear path toward significant buildings sector emissions reductions that aligns with our commitments.

TNC commends Senators Brooks, Benson, and Lewis Young on putting forward this bill, which aims to implement the MCCC's building decarbonization recommendations in order to achieve our climate goals, while also reducing consumers' costs, providing long-term health benefits through reducing air pollution, and promoting construction that is resilient to increasing energy demands.

**Therefore, we urge a favorable report on SB 804**.

**LWVMD - SB 804 - Better Buildings Act (Crossfile o**

Uploaded by: Casey Hunter

Position: FAV

**Testimony to the Senate Education, Energy, and the Environment Committee**

**SB 804 - Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)**

**POSITION: Support**

**By: Linda T. Kohn, President**

**Date: February 27, 2025**

Since the emergence of the environmental 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 advancing comprehensive legislation to mitigate the climate crisis, and accelerate the transition to predominant reliance on renewable energy.

The League of Women Voters of Maryland **supports SB 804, the Better Buildings Act,** which would protect our health from indoor air pollution, reduce our dependence on expensive methane gas, and move us closer to a fossil-free energy system. **SB 804** would enact key Building Performance Standards requiring new buildings to meet energy demands without using fossil fuels.

**The Better Buildings Act** would ensure that Maryland is a part of the new green future. Residential and commercial buildings powered *without* fossil fuels are cheaper to build, cheaper to operate, and minimize both indoor and outdoor air pollution. In 2020, buildings in Maryland contributed nearly a third of greenhouse gas emissions statewide.[1] This makes building electrification a top priority for Maryland to reach its goals of reducing emissions 60% by 2031 and achieving net-zero emissions by 2045.

So much is at stake as we approach the deadlines for Maryland's climate targets. There is no more time to delay meaningful climate action.

The League of Women Voters of Maryland **strongly urges a favorable report on SB 804.**

[1] Building Energy Performance Standards: What You Need to Know, Maryland Department of the Environment, 31 Oct. 2023.

**SB0804_FAV_EOHDEPTGWSPH.pdf**
Uploaded by: Catherine O'Donnell
Position: FAV

THE GEORGE WASHINGTON UNIVERSITY
WASHINGTON, DC

Department of Environmental and Occupational Health

February 25, 2025
The Maryland State Senate
Attn: SB0804
Maryland State Government General Assembly
100 State Cir, Annapolis, MD 21401

**Re: SB0804, Better Buildings Act of 2025**

On behalf of the undersigned faculty and staff members at the George Washington University Milken Institute School of Public Health (GWSPH), **we are writing in strong support of SB0804: Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025).** This step towards net zero buildings by 2040 – as required by the Building Energy Performance Standards (BEPS) under the Climate Solutions Now Act of 2022 – is not only a critical component of Maryland's transition away from fossil fuel usage, but would **afford direct and local public health benefits to Maryland residents**. Research in the Environmental and Occupational Health Department at GWSPH addresses critical environmental and occupational health challenges to promote healthy environments where we live and work; as such, faculty and staff members offer expertise at the nexus of human health, policy, and equity.

Energy usage in both commercial and residential buildings is primarily allocated towards lighting, heating, and cooling.[1,2] In Maryland, natural gas accounts for the largest share of in-state electricity generation and is the second largest source of energy for heating.[3,4] Natural gas is used in appliances that are often in close proximity to humans and involve the process of combustion, or burning.[5] When natural gas or other fossil fuels are combusted, gasses and particles are released into the air. These gasses and particles, oftentimes deemed hazardous air pollutants, can impact indoor air quality and contribute to adverse health outcomes.[4,6,7]

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[1] German, R. (2011). (rep.). (S. Gossett, Ed.) *2011 Renewable Energy Data Book*. U.S. Department of Energy, Energy Efficiency and Renewable Energy. Retrieved January 24, 2023, from https://www.nrel.gov/docs/fy13osti/54909.pdf.
[2] U.S. Energy Information Administration. (2020). *Residential Energy Consumption Survey (RECS)*. EIA. Retrieved January 30, 2023, from https://www.eia.gov/consumption/residential/
[3] U.S. Energy Information Administration. (2025). *Maryland: State profile and energy estimates.* Retrieved February 10, 2025, from https://www.eia.gov/state/analysis.php?sid=MD
[4] U.S. Census Bureau. (2022). *Heating and air conditioning (HVAC): 2022 American Community Survey 1-year estimates.* Retrieved February 10, 2025, from https://data.census.gov/table?t=Heating+and+Air+Conditioning+(HVAC)
[5] Michanowicz, D. R., Dayalu, A., Nordgaard, C. L., Buonocore, J. J., Fairchild, M. W., Ackley, R., ... & Spengler, J. D. (2022). Home is where the pipeline ends: characterization of volatile organic compounds present in natural gas at the point of the residential end user. *Environmental Science & Technology*, *56*(14), 10258-10268.
[6] Environmental Protection Agency. (n.d.). *Sources of Combustion Products*. EPA. Retrieved January 30, 2023, from https://www.epa.gov/indoor-air-quality-iaq/sources-combustion-products
[7] Environmental Protection Agency. (n.d.). *What are combustion products?* EPA. Retrieved January 30, 2023, from https://www.epa.gov/indoor-air-quality-iaq/what-are-combustion-products

With this legislation, Maryland has the unique opportunity to achieve public health benefits and greenhouse gas reduction simultaneously. While increasing energy efficiency and displacing fossil fuels with electrification have been recognized as elements in the pathway to meet Maryland's sustainability goals,[8] the significant direct and local public health benefits of electrification are often undercounted. This joint faculty and staff comment will focus on the significant public health benefits that will be gained by adopting energy conservation requirements, electric-and solar-ready standards, and building requirements that meet laundry, water, and space heating demands without the use of fossil fuels.

## Eliminating Indoor Combustion will Improve Public Health

Air pollution is one of the leading risk factors for death and illness globally. While outdoor air pollution has garnered extensive attention both nationally and globally, the Environmental Protection Agency (EPA) cautions that indoor air pollutant concentrations can be two to five times higher than outdoor concentrations.[9] There are many sources of air pollution in indoor environments including building materials, cleaning products, and indoor combustion from heating and cooking.[10,11] Research shows that residential natural gas appliances produce pollutants harmful to human health, such as carbon monoxide (CO), nitrogen dioxide ($NO_2$), formaldehyde, and ultrafine particles (UFP).[12] Evidence of health effects resulting from burning gas indoors has been mounting since the 1990s, showing that the combustion processes associated with cooking, heating, and drying clothes indoors are linked to increased risk of heart attack, asthma, and other respiratory diseases.[13]

While the health effects of burning natural gas indoors have impacts on a broader population level, children are particularly susceptible to adverse health outcomes. One of the most frequently studied associations between indoor air pollution and childhood health is that of $NO_2$ and impacts on respiratory function. A meta-analysis of 41 studies conducted by Lin et al. (2013) quantitatively confirmed that exposure to indoor $NO_2$ increased the risk of current wheeze.[14] Given that most people spend nearly 90% of their time in enclosed buildings,[15] including schools, offices, recreational facilities, and residential property, among others, indoor air quality is a major factor contributing to health outcomes.

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[8] Maryland Department of the Environment. (n.d.). *Climate pollution reduction planning overview.* Retrieved February 10, 2025, from https://mde.maryland.gov/programs/air/ClimateChange/CPRP/Pages/Overview.aspx

[9] Environmental Protection Agency. (n.d.). *Why Indoor Air Quality is Important to Schools*. EPA. Retrieved January 30, 2023, from https://www.epa.gov/iaq-schools/why-indoor-air-quality-important-schools

[10] Logue, J. M., McKone, T. E., Sherman, M. H., & Singer, B. C. (2011). Hazard assessment of chemical air contaminants measured in residences. *Indoor air*, *21*(2), 92-109.

[11] Hodshire, A. L., Carter, E., Mattila, J. M., Ilacqua, V., Zambrana, J., Abbatt, J. P., ... & Farmer, D. K. (2022). Detailed Investigation of the Contribution of Gas-Phase Air Contaminants to Exposure Risk during Indoor Activities. *Environmental science & technology*, *56*(17), 12148-12157.

[12] Mullen, N.A., Li, J., Russell, M.L., Spears, M., Less, B.D. and Singer, B.C. (2016), Results of the California Healthy Homes Indoor Air Quality Study of 2011–2013: impact of natural gas appliances on air pollutant concentrations. *Indoor Air*, *26*, 231-245. https://doi.org/10.1111/ina.12190

[13] Environmental Protection Agency . (2008). (rep.). *Integrated Science Assessment (ISA) for Oxides of Nitrogen – Health Criteria*. Retrieved January 24, 2023, from https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=194645

[14] Lin, W., Brunekreef, B., & Gehring, U. (2013). Meta-analysis of the effects of indoor nitrogen dioxide and gas cooking on asthma and wheeze in children. *International journal of epidemiology*, *42*(6), 1724-1737.

[15] Klepeis, N. E., Nelson, W. C., Ott, W. R., Robinson, J. P., Tsang, A. M., Switzer, P., ... & Engelmann, W. H. (2001). The National Human Activity Pattern Survey (NHAPS): a resource for assessing exposure to environmental pollutants. *Journal of Exposure Science & Environmental Epidemiology*, *11*(3), 231-252.

**Expansion of Fossil Fuel Free Requirement to Stoves will Increase Health Benefits**

Electrification of laundry, water, and space heating demands will improve indoor air quality and occupant health; however, large population health gains are left on the table without also addressing gas stoves. A recent study conducted by researchers at Harvard University's Center for Climate, Health and the Global Environment (C-CHANGE) found that natural gas used in stove ranges contains 21 different air pollutants that are hazardous to human health.[3] Included in this hazardous category of air pollutants is CO, $NO_2$, toluene, and benzene, exposures to which may cause nausea, headaches, dizziness and, with long-term exposure (continued exposure over several years), cancer or death.[16, 17] In a recent study, Gruenwald et al. (2022) reported that 13% of current childhood asthma cases can be attributed to gas stove use in the U.S.[18] Maryland can increase the health benefits of this legislation by expanding the fossil free requirement to stoves, which will also increase its climate mitigation impact.

## Electrification Will Improve Hyperlocal Air Quality and Advance Health Equity

In addition to the benefits of improving indoor air quality, commercial building electrification will improve overall air quality, with significant benefits for health equity. Historical trends in the United States show that lower income, marginalized, and minority communities experience higher levels of exposure to air pollution due to their proximity to high-emitting sources of air pollution.[19] In the state of Maryland, 7.6% of children and 8.9% of adults suffer from asthma. Black children visit the emergency department for asthma-related issues at nearly five times the rate of white children.[20] Furthermore, research conducted by Akinyemi et al. (2024) found that Maryland residents in the lowest quartile of income were over three times as likely to experience an asthma-related emergency department visit when compared to residents in the highest quartile for income.[21]

The proposal before the Maryland State Senate has the potential to meaningfully address these health inequities. Maryland achieved an overall reduction in greenhouse gas emissions between 2005 and 2022; however, the commercial buildings sector saw a 23% increase in emissions, the only sector in the state to experience a rise in emissions.[22] Commercial buildings

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[16] Centers for Disease Control and Prevention. (2018, April 4). *CDC*. Facts About Benzene. Retrieved January 24, 2023, from https://emergency.cdc.gov/agent/benzene/basics/facts.asp#:~:text=The%20Department%20of%20Health%20and,of%20the%20blood%2Dforming%20organs

[17] Centers for Disease Control and Prevention. (2021, February 10). Toluene. Retrieved January 24, 2023, from https://wwwn.cdc.gov/TSP/substances/ToxSubstance.aspx?toxid=29

[18] Gruenwald, T., Seals, B. A., Knibbs, L. D., & Hosgood, H. D. (2023). Population Attributable Fraction of Gas Stoves and Childhood Asthma in the United States. *International Journal of Environmental Research and Public Health*, *20*(1), 75.

[19] Castillo, M. D., Kinney, P. L., Southerland, V., Arno, C. A., Crawford, K., van Donkelaar, A., ... & Anenberg, S. C. (2021). Estimating intra-urban inequities in PM2. 5-attributable health impacts: A case study for Washington, DC. *GeoHealth*, *5*(11), e2021GH000431.

[20] Maryland Department of Health. (n.d.). *Asthma and environmental health.* Retrieved February 10, 2025, from https://health.maryland.gov/phpa/OEHFP/EH/pages/asthma.aspx

[21] Akinyemi, O., Weldeslase, T., Odusanya, E., Fasokun, M., Agboola, B., Andine, T., Ayeni, E., Michael, M., & Hughes, K. (2024). The relationship between neighborhood economic deprivation and asthma-associated emergency department visits in Maryland. *Frontiers in Allergy*, 5. https://doi.org/10.3389/falgy.2024.1381184.

[22] Rosen, T., Scarr, A., Ridlington, E., & Wendlandt, W. (2024, November 12). *Less coal, more oil: Climate pollution trends by state*. Environment America Research & Policy Center. Retrieved from https://environmentamerica.org/center/resources/less-coal-more-oil-climate-pollution-trends-by-state/

release carbon dioxide ($CO_2$), nitrogen oxides ($NO_x$), and particulate matter into the atmosphere, contributing to poor ambient air quality and adverse health outcomes. $NO_x$ are precursors to the climate warming pollutant ozone, an air pollutant that is known to exacerbate asthma and contribute to reduced lung function.[23] Efforts aimed at reducing greenhouse gas emissions from the commercial sector, such as requiring new commercial buildings to have key electrification technologies, will improve surrounding air quality.[24] For example, expanding solar capacity could enhance local air quality and reduce broader climate risk by reducing the reliance on fossil fuel power plants, which currently supply more than half of Maryland's energy.[25] Emissions from fossil fuel power plants make up a major portion of harmful air pollutants in the U.S., including $NO_x$ and sulfur dioxide ($SO_2$), while contributing 40% of the country's $CO_2$ emissions, intensifying climate risks.[26]

Under this proposal, areas overburdened by asthma and air pollution could see improvements in hyperlocal air quality and subsequent health outcomes. An analysis conducted by Johnson et al. (2020) estimated the air quality and public health benefits that could result from the implementation of New York City's Roadmap to "80 × 50", a plan with similar features to the Better Buildings Act of 2025.[27] When evaluating the overall benefits resulting from building emissions scenarios, which included the transition to high-efficiency electric technologies and increased solar adoption, overall emissions were estimated to decrease by 59% in buildings over 25,000 square feet. Furthermore, the greatest improvements in air quality were seen in neighborhoods with higher levels of poverty.[28]

It is important to note that this legislation is not without precedent. Similar policies have passed in New York State; Denver, Colorado; Boston, Massachusetts; and the District of Columbia.[29,30,31,32] Montgomery County, the most populous county in Maryland, passed legislation in 2022 requiring an "all electric building standard," comprehensively banning all

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[23] Lippmann, M. (1991). Health effects of tropospheric ozone. *Environmental science & technology*, *25*(12), 1954-1962.
[24] Karlsson, M., Alfredsson, E., & Westling, N. (2020). Climate policy co-benefits: a review. *Climate Policy*, *20*(3), 292-316.
[25] Nuclear Energy Institute. (2024). *Maryland State Energy Profile*. Retrieved February 10, 2025, from https://www.nei.org/CorporateSite/media/filefolder/resources/fact-sheets/state-fact-sheets/Maryland-State-Fact-Sheet.pdf
[26] National Renewable Energy Laboratory. (2007). Emissions of greenhouse gases from the use of transportation fuels and electricity. U.S. Department of Energy. Retrieved February 10, 2025, from https://www.nrel.gov/docs/fy07osti/41998.pdf
[27] New York City Mayor's Office of Sustainability. (2014). (rep.). *New York City's Roadmap to 80 X 50*. Retrieved January 24, 2023, from https://www1.nyc.gov/assets/sustainability/downloads/pdf/publications/New%20York%20City%27s%20Roadmap%20to%2080%20x%2050_Final.pdf.
[28] Johnson, S., Haney, J., Cairone, L., Huskey, C., & Kheirbek, I. (2020). Assessing air quality and public health benefits of New York City's climate action plans. *Environmental science & technology*, *54*(16), 9804-9813.
[29]New York State Senate. (2023). *Senate Bill S562A: All-Electric Building Act*. New York State Senate. Retrieved from https://www.nysenate.gov/legislation/bills/2023/S562/amendment/A
[30] City and County of Denver. (2022). Ordinance 22-1653: 2022 Denver Building and Fire Code. Denver City Council. Retrieved from https://denver.legistar.com/LegislationDetail.aspx?ID=5966691&GUID=9523D7F2-C8E9-40A8-A665-5FEA12715444
[31] City of Boston. (2023). *Executive Order 2023-01: Fossil Fuel-Free Municipal Buildings*. City of Boston. Retrieved from www.boston.gov
[32] Council of the District of Columbia. (2022). *Law 24-177: Clean Energy DC Building Code Amendment Act of 2022*. Council of the District of Columbia. Retrieved from https://code.dccouncil.gov/us/dc/council/laws/24-177#%C2%A72

buildings' use of fossil fuels, including for cooking.[33]

In conclusion, building electrification will reduce indoor and outdoor air pollution, help address inequities in air quality, and improve the health of Maryland's residents. For these reasons, we strongly support the proposed building performance standards requiring the electrification of laundry, water, and space heating demand as well as solar- and electric-readiness standards for new and significantly improved buildings as an important step towards a healthier and more equitable Maryland.

Sincerely,

Susan Anenberg, PhD
Professor and Chair of Environmental and Occupational Health
Milken Institute School of Public Health
George Washington University

Rachel Clark, JD
Director of Policy & Engagement
GW Climate and Health Institute
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Daniel Goldberg, MS, PhD
Assistant Research Professor, Department of Environmental and Occupational Health
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Daniel Huber, PhD
Postdoctoral Associate
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Gaige H. Kerr, PhD
Assistant Research Professor, Department of Environmental and Occupational Health
Milken Institute School of Public Health
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Katie O'Donnell, MPH
Program Manager
GW Climate and Health Institute
George Washington University

M. Omar Nawaz, PhD
Postdoctoral Associate, Department of Environmental and Occupational Health
Milken Institute School of Public Health
George Washington University

[33] Buildings – Comprehensive Building Decarbonization, Bill 13-22, Montgomery County Council. (MD. 2022). www.montgomerycountymd.gov

**SB0804_Better_Buildings_Act_MLC_FAV.pdf**
Uploaded by: Cecilia Plante
Position: FAV

MARYLAND LEGISLATIVE COALITION

# TESTIMONY FOR SB0804
## Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation, and Electric- and Solar- Ready Standards (Better Buildings Act of 2025)

**Bill Sponsor:** Senator Brooks
**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 SB0804 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.

All over the country, we have been digging a hole when we build buildings. We are making our environment worse every time we start a new building and make it harder and more expensive to remediate. The Better Buildings Act seeks to ensure that we stop digging that hole, and build buildings that do not harm our environment from the start.

It requires most new buildings to be built smart from the start, with better energy conservation and no on-site fossil fuel combustion for space and water heating. It will encourage the use of electric equipment and includes a provision of solar-readiness for buildings under 20 stories tall for future deployment of even more clean energy options.

The Better Buildings Act only affects new buildings, which is a small subsection of the entire building stock. That means that the impact on the grid would be minimal, and could actually help the grid with its requirement for energy-efficient appliances.

But the real impact of this bill will be felt in what it doesn't do – it doesn't require these buildings to be electrified, saving the state a great deal even in the next few years.

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

**Testimony in favor of SB0804, the Better Buildings**
Uploaded by: Cheryl Arney
Position: FAV

Testimony from Cheryl Arney,
4361 Wild Filly Ct.
Ellicott City MD 21042-5931
cherylarney@gmail.com
410-480-9609

I am a resident of District 9B in Howard County. I wish to submit testimony in favor of SB0804, the Better Buildings Act of 2025.

Maryland has a statutory 2045 carbon neutrality goal. How can we meet such a goal if we continue to build new buildings that get their water heated and building heat supplied by fossil fuels? This must change.

My husband and I were one of the first people to buy a house in the Dorsey Hall neighborhood of Columbia in 1980. It was an all electric home because there were no gas delivery lines in this new neighborhood at that time. We were happy to have a modern electric heat pump that both heated and cooled our home and an electric hot water heater. Those appliances did their job well at an affordable price.

Then BGE installed gas delivery lines in our neighborhood in the mid-nineties and we made a decision I've come to regret: we joined most of our neighbors in switching to gas. Al Gore's "Earth in the Balance" had just come out, and climate change was only beginning to be discussed. The arguments were that gas was cheaper and that the air coming out of our heating vents would feel warmer.

But now I do know that burning gas – methane – puts climate warming emissions into our atmosphere. And my desire for warmer air coming out of our vents? We now set our thermostat at 66 degrees in the winter and wear sweaters! And the argument for switching to gas that it is cheaper no longer holds as its price has increased dramatically!

So recently we replaced our gas hot water heater with an electric HEAT PUMP hot water heater – a type of hot water heater I didn't know existed until two years ago. We got a 30% federal tax credit on its purchase due to the Inflation Reduction Act and also a state tax credit. In 2024 we bought an air source heat pump to replace our gas furnace and air conditioner after finding that new heat pumps are far more efficient than the one we had in the eighties and work at far lower temperatures without triggering back-up electric resistance heating. We're working on filing our 2024 federal tax return and anticipate getting a $2000 tax credit for our heat pump purchase. The company from which we purchased the heat pump reduced our cost by the amount of the state credits for the heat pump and smart thermostat that they will apply for on our behalf. "Thank you" to the state of Maryland for wisely passing a law to incentivize these purchases and make it possible for lower income households to afford them.

What I've learned from this is that heat pumps are a reliable and efficient way to heat and cool homes and heat hot water. Even the really old ones worked well – heat pumps are not a new technology! But new ones work even better. There's no technological reason for not requiring it in most new buildings. I was at a climate conference a couple years ago and asked an architect who'd been one of the speakers if heat pumps could work to heat large, multi-story buildings. The answer was "yes" and that they worked especially well if the new building had been designed from the ground up with energy efficiency and heat pumps in mind, and that's just what the Better Buildings Act would require.

What do I say to people who want to buy a new gas-powered home? Just as I wasn't able to buy a new gas-powered home in Dorsey Hall in 1980, and just as there are still many places in Maryland that don't have gas delivery lines, you won't be able to buy a new gas-heated home in Maryland (with some exceptions) when the Better Buildings Act is passed. But your new home will be healthier, more energy efficient, less expensive to operate, and quite comfortable. And if you really want a gas-powered home, the Better Buildings Act does not require existing homes powered by fossil fuel to convert to all-electric.

Thank you for your consideration of the Better Buildings Act. This bill is essential for reducing Maryland's greenhouse gas emissions. It is the bill I most want to see the Maryland General Assembly pass this year.

**SB0804 Better Buildings Act - AIA MD Support 2025.**
Uploaded by: Chris Parts
Position: FAV

AIA Maryland

25 February 2025

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

Re: Letter of Support for SB 804
Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)

Dear Chair Feldman and members of the Education, Energy and the Environment Committee:

I am writing to voice AIA Maryland's support for Senate Bill 804 – The Better Buildings Act of 2025. AIA Maryland represents over 2,000 architects in the state of Maryland and advocates for the profession and the quality of the built environment. We are architects and we have an important role in project planning, design, and systems implementation.

The key points of this legislation are:

- Establishing a standard that requires new buildings to meet all water and space heating demands without the use of fossil fuels
- Buildings that receive a waiver from this standard, shall be electric-ready.
- New buildings will be solar-ready if they meet certain parameters such that 40% of roof area is capable of accommodating renewable energy (20,000 sf or more of continuous roof area and 20 stories or less above grade plane).
- Buildings less than 4 stories above grade plane shall meet prescribed performance level better than set benchmarks.

We believe it is reasonable that the waivers permitted through this legislation enable certain functions to operate with fossil fuel sources, but it requires the buildings to be electric-ready, having adequate panel capacity and space to accommodate future install of High-efficiency electric appliances.

This bill aligns with building performance standards that calculates Site Energy Use Intensity, effectively energy consumed per sf of building area. This sets performance requirements for buildings to meet, progressing toward a 65% reduction from 2006 standards by February 28, 2033.

As architects, we are happy to report that many of our projects are already being designed to meet water and space heating demands without the use of fossil fuels. This includes schools, commercial buildings, multifamily residences and many other types of projects.

Maryland's climate goals rely on decarbonization of the building sector, we need these measures to be a priority to achieve our goals. The easiest piece of this is working with new buildings and those buildings that are being substantially renovated so they can be tied into renewable energy sources. Integrating renewable energy sources or capacity into building electrification helps to provide added grid stability and the opportunity to reduce peak loads. The Brattle study identified sufficient electric capacity without a need for capacity growth through 2031 and a progression of growth, no greater than prior needs will be developed to meet demands.

AIA Maryland
86 Maryland Avenue
Annapolis, MD 21401

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aiamd.org

These guidelines establish performance targets, that are achievable and on many projects are already being met. It helps us move toward our statewide carbon reduction goals and, it provides a healthier environment in which to live or work. We ask for your support to set Maryland up for success moving forward and we encourage you to issue a favorable report on SB804.

Sincerely,

Chris Parts, AIA
Director, Past President, AIA Maryland

**Better Buildings bill.pdf**
Uploaded by: Dan Morhaim
Position: FAV

To: Senate EEE Committee and House ENV Committee
From: Chesapeake Physicians for Social Responsibility, with over 900 members statewide (https://www.chesapeakepsr.org)

**SB804 and HB973 – FAVORABLE**
Maryland Building Performance Standards: The Better Building Act

**Thomas Edison in 1931:** *"We are like tenant farmers chopping down the fence around our house for fuel when we should be using Nature's inexhaustible sources of energy - sun, wind, tide - I'd put my money on the sun and solar energy. What a source of power! I hope we don't have to wait until oil and coal run out before we tackle that."*

**Energy Input**: The Earth receives approximately 173,000 terawatts (TW) of solar energy continuously, which is more than 10,000 times the world's total energy consumption (Massachusetts Institute of Technology).
**Solar Energy vs. Human Consumption**: The energy from the Sun that hits Earth in just one hour is more than the total energy humans use in a year (Drexel University)
**Potential Utilization**: To meet global energy needs, we would need to harness a very small fraction of this energy. For instance, covering an area roughly the size of Texas with 10% efficient solar panels could provide the energy used by humans in a year. (Drexel University)

**William McDonough**: *"Regulation is a sign of design failure"*
(First individual recipient of the Presidential Award for Sustainable Development; Time Magazine "Hero for the Planet")

We live in two worlds: the natural world and the built world.
In the natural world, there is 100% generative re-use. Think of a tree as an example: it cleans the air, provides habitat, makes food, and creates resource.
We are responsible for the built world. Though many amazing, wonderful - and sometimes scary things - have been made, the products of the built world hit a dead end at some point. Besides the materials used and consumed, it's estimated that buildings in the US consume 40% of all energy and 75% of all electrical energy. Further, we know that fossil fuels will run out at some point, whether it's 10 years, or 20, 50, or 100. Let's start planning for that now.

**Why Better Buildings.**
Numerous studies and examples demonstrate
•Environmental benefits: Better Buildings use less energy, are less polluting, and some can even generate energy.

•Health Benefits: Better Buildings support those who live and work in them with improved air quality, reduced exposure to toxins, reduced absenteeism, and increased productivity.

The challenge is this: Can we design and construct buildings that function like a tree? The answer is "Yes", and it starts with intention and design at every level, from the biggest structures down to the molecular level. Instead of the products of human construction being wasteful cradle-to-grave, human activity becomes cradle-to-cradle.

There are numerous examples of this, and a quick search yields numerous reports: https://en.wikipedia.org/wiki/Green_building

•The Herman Miller SQA factory in Michigan includes a series of manmade wetlands that process and purify the building's stormwater. Set on 37 acres, the 295,000 square feet building is often called the "GreenHouse".

•The Rouge River Plan for the Ford Motor Company (https://en.wikipedia.org/wiki/Ford_River_Rouge_complex) includes the world's largest "living roof" (https://en.wikipedia.org/wiki/Green_roof). Its 1,100,000 square feet roof is covered with more than 10 acres of flowering plants.

•The award-winning documentary movie "The Next Industrial Revolution" highlights this approach to design: https://vimeo.com/20372160

Does doing this cost more? No, it does not, and even if it were to cost, for example 3% more to build a Better Building, the question becomes whether we want to build 100 energy-consuming polluting buildings or 97 efficient ones? Despite possibly marginally higher initial costs, Better Buildings offer substantial long-term savings through reduced energy and water consumption, lower maintenance costs, a healthier workforce, and increased property values. These savings more than offset any extra initial expense.

This all goes back to design. What is our intention when planning construction? It turns out that the perspectives thought to be in competition and conflict– profitability versus positive health and environmental impact – don't have to be and shouldn't be. In fact, by thinking it through, these two goals are compatible, synergistic, smart, and beneficial.

That's why SB804 and HB973 deserve your support and favorable report.

**HBXX_FAV_LIU.pdf**
Uploaded by: David Liu
Position: FAV

**SB804 - SUPPORT**
David Liu
Marriotts Ridge High School
david.x.liu08@gmail.com, 202-766-8155

# SB804- Better Buildings Act

Education, Energy and the Environment Committee
February 27th, 2025

Chair Feldman, Vice Chair Kagan, and Members of the Education, Energy and the Environment Committee

My name is David Liu and I am a sophomore at Marriotts Ridge High School in Howard County. As the son of two scientists, I have understood from an early age the importance of clean energy, and the role it plays in protecting our health. Last summer, I had the opportunity to conduct climate research at the University of Maryland, and I've learned through field data collection how our reliance on fossil fuels poses future risks.

Most importantly, I learn about the detrimental effects of our reliance on fossil fuels in school. We watch documentaries, read articles, and write reports on their contribution to climate change and the endangerment of public health. If we know that burning fossil fuels pollutes our air, why should we not take every opportunity to reduce its use?

My county and Montgomery County have already enacted a version of this bill, and I believe that it is important to recognize the bill's value state-wide as well as consider the voices of students like me, who will ultimately inherit the consequences of the decisions made today. If we as students are expected to learn about the importance of reducing fossil fuel dependence, then our leaders should be just as responsible to support policies for a sustainable future.

Looking around, I understand the power to turn what we learn in the classroom into real change lies here in the Senate.

On behalf of my peers, I urge a favorable report on SB804.

Thank you.

**DAC testimony SB804.pdf**
Uploaded by: Debbie Cohn
Position: FAV

| | |
|---|---|
| **Committee:** | **Education, Energy and the Environment** |
| **Testimony on:** | **SB804 Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)** |
| **Submitted by:** | **Deborah A. Cohn** |
| **Position:** | **Favorable** |
| **Hearing Date:** | **February 27, 2025** |

Dear Chair Feldman and Committee Members:

Thank you for allowing my testimony today in support of SB804, The Better Buildings Act of 2025.

Under the Climate Solutions Now Act, Maryland must reach net zero carbon pollution emissions by 2045 – just 20 years from now. Buildings account for 13 percent of the state's carbon emissions, and 80 percent of direct building emissions are from space and water heating.[1] We simply cannot meet our carbon emissions reductions targets if most buildings continue to use fossil fuels for space and water heating.

The Better Buildings Act creates state energy conservation requirements in new construction and major renovations of residential and commercial buildings that, while being resource neutral,[2] effectively ensure that most newly constructed buildings will meet their space and water heating needs without using fossil fuels. Building highly energy efficient residential and commercial building is much less expensive than retrofitting existing buildings to achieve similar energy efficiency and greenhouse gas emission reduction standards. And state law already requires all buildings over 35,000 square feet to eliminate onsite emissions by 2040. So building smart from the start just makes economic sense.

All electric buildings are less expensive to build and operate. In a comprehensive study of Building Decarbonization Codes[3] the all-electric single-family residence was $7,500 - $8,200 less expensive to build than a comparable conventional residence, and reduced total energy consumption by 34 percent. A mixed fuel scenario reduced energy consumption only by 9 percent compared with conventional construction. A similar analysis by the Maryland Department of the Environment (MDE)[4] showed similar results but over a broader range of building types, including single family homes, multi-family homes and commercial buildings.

Air source heat pumps are more than two to three times as efficient as gas furnaces[5] and cold climate heat pumps work well even in quite cold weather.[6] Thus, in Maryland well insulated, air sealed

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[1] Maryland Building Decarbonization Study, https://mde.maryland.gov/programs/Air/ClimateChange/MCCC/Documents/MWG_Buildings%20Ad%20Hoc%20Group/E3%20Maryland%20Building%20Decarbonization%20Study%20-%20Final%20Report.pdf

[2] Resource neutrality is central to avoiding some of the legal results in the Ninth Circuit where the ban on fossil fuels for heating was challenged on that basis.

[3] Cost Study of the Building Decarbonization Code: An analysis of the incremental first cost and life cycle cost of two common building types (April 2022) https://newbuildings.org/wp-content/uploads/2022/04/BuildingDecarbCostStudy.pdf

[4] Building Energy Transition Plan: A roadmap for decarbonizing the residential and commercial building sectors in Maryland (2021) https://mde.maryland.gov/programs/air/ClimateChange/MCCC/Commission/Building%20Energy%20Transition%20Plan%20-%20MCCC%20approved.pdf

[5] https://rmi.org/now-is-the-time-to-go-all-in-on-heat-pumps/; Maryland Building Decarbonization Study, https://mde.maryland.gov/programs/Air/ClimateChange/MCCC/Documents/MWG_Buildings%20Ad%20Hoc%20Group/E3%20Maryland%20Building%20Decarbonization%20Study%20-%20Final%20Report.pdf

[6] https://homes.rewiringamerica.org/articles/heating-and-cooling/heat-pumps-cold-weather

buildings using highly efficient cold weather heat pumps can avoid the need for back-up gas furnaces. In hot weather the average heat pump uses as much as 29 percent less electricity during periods of peak demand than a central AC unit. It just makes economic sense to install highly efficient electric appliances from the start.

Of course, not all electric appliances are highly efficient. Electric resistance heat is much less expensive than highly efficient cold weather heat pumps to install, but much more expensive to operate. Low income residents pay a higher share of their income on utility bills than Maryland residents as a whole. Installing electric resistance heat in housing for low income residents would be unjust, condemning those residents to high utility costs over the long run. The bill precludes use of electric resistance heat by precluding use of a type of heating would likely result in the building achieving a lower energy efficiency on average than a building relying on a fuel other than electricity.

Electric appliances for water heating and space heating and cooling improves indoor health. Pollution from comparable fossil fuels systems in Maryland is responsible for $1.3 billion in annual health impacts and was a critical factor in 3,500 cases of asthma events and 163 premature deaths in 2017 alone. These results are not surprising as fossil fuel equipment in residential and commercial buildings in Maryland emits more than three times as much health-harming $NO_x$ as all of the state's power plants together. These emissions contribute to the formation of small particulate matter which compromises lung and heart health, and in the presence of sunshine can combine with volatile organic compounds to form ozone.[7]

SB804 requires certain buildings to be electric ready and solar ready. The bill also does not prelude local jurisdictions from prohibiting the use of fossil fuels in certain buildings or enacting energy conservation and solar energy requirements for buildings that are more stringent that state requirements. These additional provisions all help the state meet its carbon emission and solar energy goals.

SB804 is a carefully constructed bill that protects the health of Maryland residents, supports Maryland in achieving its climate pollution reduction and solar energy goals, and creates appropriate flexibility for the building industry and building owners in achieving these building energy efficiency standards in new construction and major renovations.

For these reasons I respectfully request a favorable report on SB804.

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[7] https://www.greenandhealthyhomes.org/wp-content/uploads/MD-NOx-Report-_V12_unembargoed.pdf

**SB 804_FAV_JCRC.Singer.pdf**
Uploaded by: Elizabeth Singer
Position: FAV

JCRC JEWISH COMMUNITY RELATIONS COUNCIL
JEWISH FEDERATION OF HOWARD COUNTY

| | |
|---|---|
| **Committee:** | **Education, Energy, and the Environment** |
| **Testimony on:** | **SB 804 – Maryland Building Performance Standards-Fossil Fuel Use, Energy Conservation, and Electric and Solar-Ready Standards (Better Buildings Act of 2025)** |
| **Organization:** | **Jewish Community Relations Council, Howard County, MD** |
| **Submitting:** | **Betsy Singer** |
| **Position:** | **FAVORABLE** |
| **Hearing Date:** | **February 27, 2025** |

Dear Chairman Feldman and Committee Members:

Repair of the world (*tikkun olam*) is a guiding Jewish value. We are compelled to act to prevent massive changes to Earth's climate as we face rising temperatures due to burning fossil fuels that trap greenhouse gases in the Earth's atmosphere.

Fossil fuel furnaces and water heaters generate 17% of Maryland's greenhouse gases. An efficient and affordable way to lower heat-trapping emissions is to change from burning fossil fuels to heat and cool buildings and homes and instead use clean energy sources. We can do that through features of The Better Buildings Act, which carries no additional budget costs for the Maryland state government.

The bill requires that the state Department of Labor, as part of the Maryland Building Performance Standards, adopt requirements that all new buildings and significant improvements meet all laundry, water and space heating energy demands of the building without the use of fossil fuels.

Local jurisdictions could grant limited waivers including for backup power systems as well as for restaurants, labs, hospitals, and crematoriums. Buildings granted waivers would be required to be built electric-ready and must include automatic ventilation to maintain healthful indoor air quality.

All-electric new buildings will save energy, avoid fossil fuel combustion and are less expensive to build and operate than gas-powered and dual-fueled buildings in Maryland. Electric heat pump technology has advanced rapidly and has significantly reduced fuel costs and carbon emissions. Owners and tenants in new all-electric homes and buildings will also avoid the substantial cost increases projected for the delivery of methane gas in future years.

For these reasons, we strongly support SB 804 and urge a FAVORABLE report in committee.

**ECA Testimony SB0804 Better Buildings.pdf**
Uploaded by: Frances Stewart
Position: FAV

SB0804 - SUPPORT

Frances Stewart, MD
Elders Climate Action Maryland
frances.stewart6@gmail.com
301-718-0446

SB0804, The Better Buildings Act

Meeting of the Education, Energy, and the Environment Committee

February 27, 2025

Dear Chair Feldman, Vice Chair Kagan, and Members of the Committee, on behalf of Elders Climate Action Maryland, I urge a favorable report on HB0973, the Better Buildings Act.

Elders Climate Action is a nationwide organization devoted to ensuring that our children, grandchildren, and future generations have a world in which they can thrive. The Maryland Chapter has members across the state.

Each day, we see the climate crisis more clearly. We know that Maryland is at risk for sea level rise, flooding from intense rainfall, heat waves, and other extreme weather events. Maryland can also be a leader in moving us to a safer, cleaner future where we all can thrive.

Buildings are a major source of climate-warming greenhouse gas emissions as well as NOx and other air pollutants that damage our health[1]. They cause as three times as much smog-forming pollution as all of our state's power plants combined. In 2017, that was estimated to cause 3500 cases if asthma, 163 deaths, and $1.3 billion dollars in health care impacts in Maryland.

The Better Buildings Act will reduce energy costs and improve our health by requiring all newly constructed buildings to meet their space and water heating needs without fossil fuels. It also sets high standards for energy efficiency and includes a provision for solar-readiness in buildings with less than twenty stories.

A 2021 study by the Maryland Commission on Climate Change showed that all-electric new buildings would be cheaper[2] to build and to operate than buildings using fossil fuels.

A gas furnace installed today is expected to last about 25 years. Building right from the start protects building owners and residents from stranded assets, outdated equipment, and rising energy costs.

Many people are worried about the grid, but this bill is grid-friendly. The PJM grid is summer-peaking. New buildings will be a small portion of the demands on the grid in the coming years. The energy-efficiency provisions of the bill will minimize any summer increase. There will be an increase in demand in the winter but that is something the gird can handle. As the Maryland Public Service Commission recently said in their Assessment of Electrification Impacts on the Maryland Electric Grid, "High level of electrification can be handled by Maryland's electric systems…"

Others have expressed concern that the Better Buildings Act could be overturned because of the litigation against a gas ban in Berkeley, California. That decision in the Ninth Circuit does not apply in Maryland. There have been suits brought in Montgomery County and the District of Columbia seeking to overturn similar laws. We do not expect the judges in the Fourth Circuit to rule in the same way as the Ninth Circuit.

The Better Buildings Act was drafted after the Berkeley decision with the possibility of a similar decision in mind. The bill takes a "belt and suspenders" approach including zero fuel bias[3] and a severability clause that ensure the bill would continue to be effective. It also includes energy-efficiency provisions that are unlikely to be challenged.

For all of these reasons, we strongly urge a favorable report on SB0804.

Thank you.

1 https://www.greenandhealthyhomes.org/publication/cutting-through-the-smog/
2 https://mde.maryland.gov/programs/air/ClimateChange/MCCC/Commission/Building Energy Transition Plan - MCCC approved.pdf
3 https://rmi.org/event/webinar-zero-fuel-bias-energy-codes/

**SB 804 - MoCo DEP - Fitzgerald (GA 25) FAV.pdf**
Uploaded by: Garrett Fitzgerald
Position: FAV

# Montgomery County
## Office of Intergovernmental Relations

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

**SB 804** **DATE: February 27, 2025**

**SPONSOR: Senator Brooks**

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

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

**POSITION: Favorable (Department of Environmental Protection)**

**Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)**

This legislation would require new buildings and significant building improvements to meet all of their laundry, water, and space heating demands without the combustion of fossil fuels. These needs would be met instead through the use of clean and efficient electric equipment. The bill would also ensure that new buildings be energy efficient and constructed to be ready for potential subsequent solar panel and/or electric vehicle charging equipment installation. This is the right way to build new buildings, and these measures are cost-effective in new construction.

Montgomery County passed a similar law applying to new construction in 2022 in alignment with achieving our climate action goals, and would welcome a standardized statewide approach. The requirements to meet laundry, water, and space heating needs without the use of combustion equipment are especially important.

We respectfully request that the Education, Energy, and the Environment Committee issue a favorable report on Senate Bill 804.

**MD SB 804_USGBC Letter of Support.pdf**
Uploaded by: Gracie Tilman
Position: FAV

2101 L St. NW
Suite 600
Washington, DC 20037
202-828-7422
usgbc.org

February 25, 2025

Senator Brian Feldman, Chair
MD Senate Committee on Education, Energy, and the Environment
Miller Senate Office Building, 2 West Wing
11 Bladen St.
Annapolis, MD 21401

**RE: USGBC Support for SB 804 (Better Buildings Act of 2025)**

Dear Senator Feldman and members of the Education, Energy, and the Environment Committee,

On behalf of the U.S. Green Building Council (USGBC) and our strong green building community in Maryland, **we are writing to express our support for SB 804, the Better Buildings Act of 2025, and to kindly ask for your support of the bill**.

USGBC is a nonprofit organization dedicated to transforming the way buildings and communities are designed, built, and operated to create thriving, healthy, equitable, and resilient places that advance human and environmental wellbeing. Best known for the Leadership in Energy and Environmental Design (LEED) green building rating system, USGBC has a thirty-year history of championing proven building decarbonization strategies, because we know that green buildings save money, improve energy and water efficiency, reduce carbon emissions, and create healthier places for people.

USGBC commends the State of Maryland's commitment to achieving net-zero emissions by 2045 and recognizes that building decarbonization is a critical pathway to achieve that goal. If enacted, SB 804 would help Maryland meet its public commitment to reduce greenhouse gas emissions to zero for the building sector and provide a better future for all Marylanders.

SB 804 would add a requirement for new buildings and major renovations to meet all water and space heating demands without the use of fossil fuels, effectively mandating new buildings to electrify. In addition, certain buildings would be required to meet electric-ready, solar-ready or energy efficiency standards. As it is anticipated that most buildings built today will still be standing in 2050, this bill is critical to ensuring efficient building decarbonization measures from the design and construction of a building rather than requiring costly retrofits down

the line. Maryland's longstanding commitment to high-performance buildings, robust energy efficiency standards, and grid that is already equipped to accommodate high building electrification enable this next step toward beneficial electrification.

Furthermore, we know that buildings have a direct impact on human health and wellbeing. We are especially appreciative that SB 804 would ensure that all residents of Maryland can access the health benefits of improved indoor air quality, as well as the financial benefits of reduced energy bills.

We look forward to working with you and the rest of the General Assembly to advance this legislation that supports healthy, energy-efficient, electric buildings.

Sincerely,

Gracie Tilman
Advocacy Partnerships Associate
U.S. Green Building Council
gtilman@usgbc.org

**BBA Senate Sign on testimony.pdf**
Uploaded by: Jamie DeMarco
Position: FAV

**SB 0882- FAVORABLE**

Maryland Building Performance Standards- Fossil Fuel Use, Energy Conservation, and Electric and Solar-Ready Standards (Better Buildings Act of 2025)

Education, Energy, and Environment Committee - February 27th, 2025

Chair Feldman, Vice-Chair Kagan and Members of the Committee,

The Better Buildings Act offers the opportunity for Maryland to lower utility bills, make communities healthier, and decarbonize buildings in the most efficient and economical way- from the start. This legislation requires all newly constructed buildings to meet space heating, water heating, and laundry needs without the use of fossil fuels. The bill also includes solar-ready and electric-ready provisions. These provisions ensure that when households and building owners are ready to switch to fully electric properties with on-site clean energy generation, they are able to with very low transitioning costs. Lastly, the bill includes energy efficiency requirements to encourage the adoption of the latest, most grid-friendly appliances.

All-electric building codes have many benefits. Buildings electrification has been shown to decrease lifetime energy consumption by 34%, reduce the cost of construction by thousands of dollars, and reduce energy burdens due to lower utility bills.

The Better Buildings Act also serves to benefit public health. Fossil fuel burning furnaces in the state produce three times more air pollution than all of Maryland's power plants combined. These furnaces and HVAC systems are responsible for $1.3 billion dollars in annual health impacts.

Further, new buildings electrification will have a balancing effect on the electrical grid. Load growth only strains a grid system if it increases the annual peak demand of the system. Because building electrification does not increase electricity demand in the summer when peak demand occurs, it is grid-friendly.The Better Buildings Act will lower utility bills, create healthier communities, and support broader decarbonization goals.We, the undersigned organizations, urge a favorable report on SB 0882.

Chesapeake Climate Action Network (CCAN) Action Fund

Maryland Legislative Coalition Climate Justice Wing

HoCo Climate Action

CASA

Cedar Land Unitarian Universalist Environmental Justice Ministry

Indivisible HoCoMD Environmental ACtion

Maryland League of Conservation Voters

Climate Reality Greater Maryland

Elders Climate Action Maryland


ccan
ACTION FUND

## Ceres Testimony Supporting SB0804 - Better Buildin

Uploaded by: Jeff Mauk

Position: FAV

**SB0804 – SUPPORT**
Jeff Mauk
Ceres
jmauk@ceres.org

# TESTIMONY SUPPORTING SENATE BILL 804: The Better Buildings Act of 2025

Senate Education, Energy, and the Environment Committee
February 27th, 2025

Dear Chair Feldman, Vice Chair Kagan, and members of the Education, Energy, and the Environment Committee;

I write today on behalf of Ceres to urge a favorable report from the Committee on SB0804, the Better Buildings Act of 2025. Ceres works with investors, companies, and financial leaders to promote sustainability solutions. Through our Business for Innovative Climate and Energy Policy Network (BICEP), we mobilize over 85 major employers, including several companies with operations and business interests in Maryland, to advocate for more effective climate and clean energy policies.

SB0804 creates a forward-looking framework that will drive business innovation, reduce operating costs, and position Maryland as a leader in sustainable construction while providing clear guidelines and reasonable timelines for implementation.

## Cost Savings and Market Predictability

1. Lower Operating Costs: All-electric buildings typically have lower operating costs than mixed-fuel buildings. Modern heat pumps and electric appliances achieve superior efficiency ratings compared to fossil fuel alternatives, reducing energy consumption and costs.
2. Protection from Fuel Price Volatility: By transitioning away from fossil fuels for space and water heating, businesses can better predict and control their energy costs, as electricity prices have historically been more stable than natural gas and oil prices.
3. Phased Implementation: The bill's graduated efficiency requirements provide businesses with flexibility and a clear roadmap for planning and investment.

## Construction and Real Estate Benefits

1. Reduced Construction Costs: Electric-ready and solar-ready requirements eliminate the need for costly retrofits when buildings later convert to electric systems or add solar installations. Building it right the first time saves money.

2. Higher Property Values: High-performance buildings command premium rents and sales prices. Studies consistently show that efficient, sustainable buildings have higher occupancy rates and better resale values.
3. Future-Proofed Assets: As carbon regulations tighten, all-electric buildings will maintain their value better than those requiring costly fossil fuel retrofits.

**Economic Development Opportunities**

The Better Buildings Act will:

- Create jobs in clean energy installation and manufacturing, developing Maryland's clean energy workforce
- Attract businesses seeking sustainable facilities
- Position Maryland companies competitively in the growing green building market

**Flexible Implementation**

The bill provides important flexibility through:

- Clear exemption processes for specific building types with unique energy needs
- Local jurisdiction authority to adopt more stringent requirements
- Allowances for emergency backup power systems
- Reasonable waiver provisions where electrification is not technically feasible

**Conclusion**

The Better Buildings Act represents a balanced approach to building decarbonization that will benefit Maryland's business community while addressing climate change. The bill's clear standards, reasonable timelines, and flexible implementation framework provide businesses the certainty needed for long-term planning while driving innovation and economic growth.

I strongly encourage a favorable report on Senate Bill 804.

Respectfully submitted,

Jeff Mauk
Director, State Policy, Eastern Region, Ceres

**Testimony for Better Buildings Act FINAL Jennifer**
Uploaded by: Jennifer Mizrahi
Position: FAV

**Committee: EEE**

HB0973 / SB0804 Better Buildings Act

**Organization:** **Mizrahi Family Charitable Fund**

**Submitting:** **Jennifer Laszlo Mizrahi, co-founder/director**
**Position:** **Favorable**
**Hearing Date:** **Feb 27 at 1:00 PM**

Honorable Chair and Committee Members:

Thank you for allowing my testimony today in support of HB0973 / SB0804 – The Better Buildings Act – which requires new homes and buildings to incorporate clean energy equipment.

My name is Jennifer Laszlo Mizrahi and I serve on the Maryland Commission on Climate Change which recommended the policies in this proposed legislation. It will help us save lives and livelihoods of people across our state.

Previously I founded and led a Maryland headquartered disability nonprofit. I also know what it means to raise a child with multiple disabilities. There are more than 669,000 disabled people living in Maryland and most people in Maryland have a loved one with a disability. No group is more impacted from climate change.

People with underlying health conditions are more susceptible to death from extreme heat or cold. When the power goes off, people who rely on oxygen can't breathe, and people who use power wheelchairs can't move. When there is flooding, fires, or extreme wind they often cannot evacuate in time, or have no place to go that has the appropriate disability accommodations.

Maryland has a fantastic plan to fight climate change and the Better Buildings Act is a part of that plan. But it all honesty, we are not yet on track to meet our goals and time is running out. It's vital to do as much as we can as quickly and affordably as possible.

Fortunately, building right in the first place is a cost-effective way to save residents money while also saving our shared planet. This is important as people with low and moderate incomes, which includes most Marylanders with disabilities, need affordable housing. Thus, it is critical that this bill will help both their health and their costs of living.

Thank you for your consideration.

**IPL-DMV FAV Testimony for SB804.pdf**
Uploaded by: Joelle Novey
Position: FAV

February 24, 2025

**SB 804, Better Buildings Act of 2025**
Position: **FAVORABLE**

# "Do the best you can until you know better. **Then when you know better, *do better*.**"

— Maya Angelou

There is no good reason to build a gas-burning building in Maryland ever again.

Today, we can build better buildings than we did in the past: all-electric heat pumps, heat pump water heaters, and induction stoves are more efficient than their gas-burning predecessors, healthier to breathe around, don't require leaking pipes or risk explosions, and protect our damaged climate. So now that we know better, state law should require that we do better.

Maryland's faith communities are doing *our* best to care for our neighbors and our common home. And that's why we want to live, work, and pray in buildings that don't burn gas indoors.

**Our communities understand the harms of gas-burning because we have measured the pollution ourselves.**

We are one of several grassroots organizations in Maryland using hand-held detectors both to measure methane leaks outdoors and to measure nitrogen oxide (NO2) indoors. NO2 is a respiratory irritant generated by gas-burning stoves. The EPA's outdoor guideline for safe levels of NO2 is 100 parts per billion. Our colleagues at the Maryland Just Power Alliance (including Action in Montgomery, People Acting Together in Howard, and Anne Arundel Connecting Together), Adama Harouna and her team, have **measured NO2 in over three hundred kitchens** at Cider Mill Apartments in Gaithersburg, Enclave high rises in White Oak, and in Northwest Park's garden-style apartments. One such tenant was Ana Argueta in Silver Spring. After her gas-burning stove was on for twenty minutes, measured nitrogen oxide at 434 ppb, **four times the EPA outdoor limit.** Adama says that many of the kitchens she tests reach unhealthy NO2 levels when the families cook, contributing to asthma and other breathing problems, especially for young and old. We give a dish towel to every household with a gas-burning kitchen we test, sharing tips for reducing the impact of gas-burning on the air families are breathing.


Last November, IPL-DMV, the Maryland Just Power Alliance, and the Maryland Sierra Club published a joint report, *Cooking up Danger*, that detailed the findings of our extensive community science campaign. Of the nearly 700 gas-burning kitchens in the District of Columbia and Maryland tested for nitrogen dioxide, we found that nearly two-thirds exceeded the Environmental Protection Agency's health standard for safe outdoor exposure to nitrogen dioxide. Maryland has the opportunity to prevent further harms to our neighbors by passing legislation that would make our homes, houses of worship, and schools safer to breathe in.

Electrifying our homes and electrifying gas-burning buildings can be difficult and expensive. By contrast, **building Maryland buildings better to begin with is easy**. That's why grassroots coalitions helped pass all-electric building code bills already in Montgomery County, where we danced the "electric slide" in front of the council chambers, and in Howard County, where a series of passionate high school students led off supportive testimony from over a dozen community groups. Similar legislation will be introduced soon in Baltimore City.

Because of several years of grassroots education undertaken by a dozen organizations, a groundswell of Marylanders know better, and want to do better. We call on our leaders now to do your best for us, too.

BEYOND GAS

# COOKING UP DANGER

Community Study Reveals Hazardous Nitrogen Dioxide Levels in DC and Maryland Kitchens

November 2024

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# EXECUTIVE SUMMARY

When stoves, ovens, furnaces, and water heaters burn gas in our homes, they emit nitrogen dioxide, a chemical compound also known as $NO_2$. Though odorless and not visible at lower levels, $NO_2$ can have significant long-term impacts on human health, exacerbating respiratory issues and diseases.

## Key Takeaways

Community scientists have tested nearly 700 DC and Maryland kitchens for $NO_2$. Nearly two-thirds of the kitchens tested in District of Columbia and Montgomery County, Maryland had unsafe levels of nitrogen dioxide ($NO_2$).

- Of the 663 kitchens tested, 416 (or 63%) recorded $NO_2$ readings at or above 100 parts per billion (ppb), the U.S. Environmental Protection Agency's health-protective standard for one hour of exposure.
- Of 269 kitchens tested in DC, 206 (or 77%) recorded readings over 100 ppb.
- Of 394 kitchens tested in Montgomery County, 210 (or 53%) recorded readings over 100 ppb.
- The average high $NO_2$ concentration was 168 ppb for all 663 tests, 181 ppb in DC, and 159 ppb in Maryland.
- The EPA's 100 ppb $NO_2$ health standard is for outdoor exposure. As we learned during the COVID-19 pandemic, breathing health-harming pollution concentrated indoors – where we spend most of our time – is far more dangerous. The EPA lacks the legal authority to regulate indoor $NO_2$.
- $NO_2$ is linked to a range of negative health consequences, including respiratory diseases like asthma and chronic obstructive pulmonary disease (COPD) as well as cardiovascular issues such as hypertension and heart attacks. Emerging evidence has shown $NO_2$ could be tied to increased risk of developing Type 2 diabetes as well as cognitive development and behavioral issues in children.
- With majorities of homes tested in DC and Montgomery County having unsafe levels of $NO_2$, policymakers and regulators in both jurisdictions must prioritize helping families upgrade to electric appliances.

The testing protocol involved turning on the stove for 30 minutes (either oven at 350° F and two burners on high, or turning on four burners and not the oven). Nitrogen dioxide levels were recorded after 15 minutes, at 30 minutes, and 15 minutes after the stove was turned off.

Stoves are centrally located in families' living spaces and are typically not vented outside, trapping emissions inside the home. People usually stand directly above the stove as it emits pollutants, often with young or elderly family members nearby, leading them to directly breathe in this pollution. Because of these concerns, the Beyond Gas citizen scientists decided to test $NO_2$ emissions in DC and Maryland kitchens.

We found indoor $NO_2$ pollution levels from moderate gas stove use far above the health standard set by the EPA for outdoor exposure, demonstrating that DC and Maryland residents would be well served by an accelerated transition away from burning gas in our homes and buildings.

## Who We Are

This investigation is a project of Beyond Gas DC and Beyond Gas Maryland, a collaboration of:

- Action in Montgomery (AIM)
- Interfaith Power & Light (DC. MD.NoVA)
- Sierra Club
- Washington Interfaith Network (WIN)
- A growing number of DC and Maryland climate, faith, and community organizations and concerned citizens

Together we are working to speed our region's transition from burning fossil fuels in buildings to non-polluting, climate-friendly, and highly efficient energy.

*Sampling chocolate fondue prepared on an all-electric induction cooktop at Saint Peter's Episcopal Church in Poolesville.*



# INTRODUCTION

Nitrogen dioxide is a significant air pollutant, primarily produced through human activities, especially the burning of fossil fuels like coal, oil, methane gas, and gasoline. Burning methane gas in stoves, ovens, furnaces, and water heaters is the primary source of nitrogen dioxide ($NO_2$) in homes and other buildings. The fumes emitted by furnaces, dryers, and water heaters are legally required to be vented outdoors, but stove emissions are not legally required to be vented outside and most are not. Thus, stoves are a major source of $NO_2$ that people breathe inside their homes.

Exposure to $NO_2$ is linked to an array of negative health outcomes. $NO_2$ can irritate the respiratory system, reduce lung function, and increase the risk of respiratory infections. Long-term exposure can contribute to the development of asthma, COPD, and other respiratory diseases. $NO_2$ exposure is also linked to an increased risk of cardiovascular diseases, such as hypertension, heart attacks, and other heart-related problems. Emerging research has shown that among young children, $NO_2$ exposure may be linked to cognitive and behavioral issues. Evidence also suggests that chronic exposure to air pollution, including $NO_2$, may be associated with an increased risk of developing type 2 diabetes. While respiratory effects like asthma and lung irritation are the most direct consequences of $NO_2$ exposure, its impact on overall health is broad, influencing various bodily systems and potentially contributing to long-term health issues.

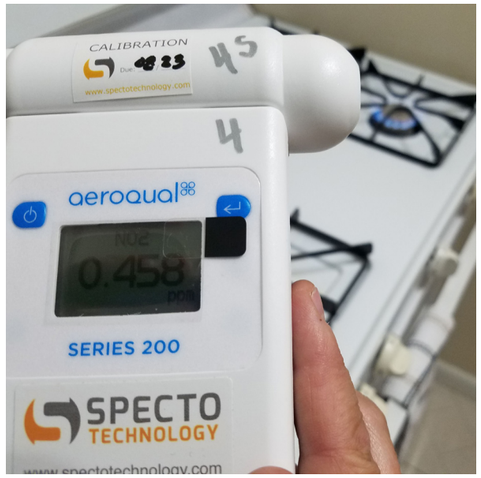
Amid rising awareness that burning of fossil fuels in buildings causes air pollution, many communities in DC and Maryland are concerned about the public health threat of burning gas in their homes. The product that gas utilities call "natural" gas, which is mostly methane, is also a concern for climate reasons, as buildings represent more than 16% of Maryland's climate pollution. Despite this growing awareness, DC and Montgomery County's gas utility Washington Gas, owned by the Canadian multinational AltaGas, continues to resist the transition to clean energy.

Methane is a highly potent greenhouse gas whose climate warming impact is 84 times as great as carbon dioxide. Recent studies show that fugitive emissions — gas leaking from drill sites, transmission pipelines, and the distribution pipes under our streets and in our homes — are happening at far higher rates than previous estimates.[1]

In 2020, after being denied access to the leaks data Washington Gas collects and shares with the District's Public Service Commission, a group of climate, community, and faith advocates decided to measure the gas leaks in the DC area.[2] With a small grant from the Sierra Club, the Beyond Gas DC coalition purchased a hand-held industry grade methane detector and began searching for leaks in neighborhoods around schools, houses of faith, and residential neighborhoods across DC's eight wards. In about 25 hours of testing time, the citizen science teams identified 387 leaks, 14 at or above the concentration at which gas can explode (50,000 parts per million).[3] After the leaks investigation demonstrated the significant threat posed by gas leaking outdoors, Beyond Gas wanted to explore the dangers of gas inside our homes.

When burned, methane gas emits pollutants like nitrogen dioxide, carbon monoxide, fine particulate matter (soot), formaldehyde, and benzene. As more than 62% of homes in the District of Columbia and 40% of homes in Maryland[4] use gas for cooking, the coalition decided to measure exposure to these pollutants inside DC and Maryland homes.

# WHY NITROGEN DIOXIDE ($NO_2$)




Among the pollutants created when gas is burned, Beyond Gas decided to focus on $NO_2$ because of its immediate health impacts and because the detection equipment to measure it is relatively affordable and simple to operate.

We used Aeroqual Series 200 and 300 gas detection devices fitted with $NO_2$ sensor heads. Placed six feet from an emissions source (e.g., a gas stove or other gas appliance), the device provides $NO_2$ readings in about five minutes.

# $NO_2$ HEALTH IMPACT

Nitrogen dioxide is an irritant and inflammatory agent that has been linked to or worsens asthma, bronchitis, COPD and other respiratory conditions in children and adults.[5] According to a 2013 meta-analysis[6] of the effects of indoor $NO_2$ and gas cooking, "children living in homes with gas cooking have a 42% increased risk of having current asthma, a 24% increased risk of lifetime asthma... per 15 ppb increase in indoor $NO_2$ level, children have a 15% increased risk of having current wheeze." In other words, very small increases (15 ppb) in children's exposure to $NO_2$ was correlated with significant increases in difficulty breathing due to narrowed airways. A 2023 study[7] published in the *International Journal of Environmental Research and Public Health* found that "12.7% of current childhood asthma in the US overall is attributable to gas stove use," and that depending upon the state, childhood asthma rates could potentially be reduced by up to 20% by eliminating exposure to emissions from gas stoves.[8]

Nitrogen dioxide exposure may also impact child cognitive development. A 2020 study[9] of a diverse group of 975 children found a correlation between prenatal and infant $NO_2$ exposure and behavior issues in children between four and five years old. Each 2 ppb increase in ambient $NO_2$ during the pregnancy was associated with an 6% increase in "externalizing behavior problems" such as rule breaking and aggressive behavior toward others between the ages of four and five. The association between post-natal exposure to $NO_2$ and behavior problems later was even stronger: each 2 ppb increase in ambient $NO_2$ was associated with an 8% increase in reported behavior issues. There is strong reason to believe that our gas-burning stoves are harming our families.



*A Crestwood DC resident holds detector registering $NO_2$ at 240 ppb during her kitchen test in January 2024.*

# HOW MUCH $NO_2$ IS TOO MUCH?

The Environmental Protection Agency (EPA) National Ambient Air Quality Standards specify $NO_2$ levels of 100 ppb as the health standard for one hour of exposure for outdoor air.[10] The U.S. government does not regulate indoor air in residential homes and has no standard for unhealthy levels of $NO_2$ indoors.

## EPA Standard for Outdoor $NO_2$ Exposure

The chart below benchmarks outdoor EPA standards for $NO_2$ exposure levels.

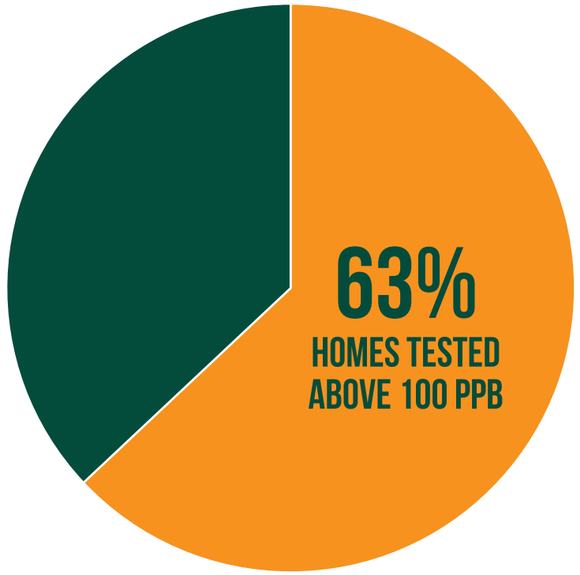
| Air Quality Index | Protect Your Health Near Roadways |
|---|---|
| **Good (0-50)** | No health impacts are expected when air quality is in this range |
| **Moderate (51-100)** | Individuals who are unusually sensitive to nitrogen dioxide should **consider limiting prolonged** outdoor exertion |
| **Unhealthy for Sensitive Groups (101-150)** | The following groups should **limit prolonged** outdoor exertion:<br>■ People with lung disease, such as asthma<br>■ Children and older adults |
| **Unhealthy (151-200)** | The following groups should **avoid prolonged** outdoor exertion:<br>■ People with lung disease, such as asthma<br>■ Children and older adults<br>Everyone else should **limit prolonged** outdoor exertion |
| **Very Unhealthy (201-300)** | The following groups should **avoid all** outdoor exertion:<br>■ People with lung disease, such as asthma<br>■ Children and older adults<br>Everyone else should **limit** outdoor exertion |

# $NO_2$ TESTING RESULTS

Of 663 DC and Maryland homes tested, 416 (63%) recorded a top $NO_2$ reading over 100 ppb, the EPA's standard for maximum safe level for one hour of outdoor exposure. In DC, of 269 kitchens tested, 206 (77%) recorded at least one reading over 100 ppb. In Maryland, of 394 kitchens tested, 210 (53%) recorded at least one reading over 100 ppb. Region-wide the average high $NO_2$ concentration was 186 ppb, including an average of 181 ppb in DC and 159 ppb in Maryland.

$NO_2$ was generally zero in the house before testing began. All kitchens tested recorded $NO_2$ levels at least in the double digits.

Some of the patterns we expected were not confirmed by our findings. For example we expected to find that larger kitchens would consistently measure lower concentrations of $NO_2$. But we found that some larger kitchens had high $NO_2$ numbers, and some smaller kitchens (especially kitchens with two doors) had low numbers. There are likely other factors that we did not adequately measure.[11] Some of the larger kitchens we tested had been recently renovated, with large new gas stoves with double coil burners that likely burned a lot of gas. Some kitchens, even larger ones,




appeared to lack ventilation. Stagnant air, even in a larger space, could allow pollutants to accumulate.

When we restricted our sample to enclosed kitchens with just one door, the average high $NO_2$ measurement was much higher, between two and three times the EPA's outdoor limit: 199 ppb for enclosed kitchens of all sizes and 281 ppb for small kitchens (defined as 576 cubic feet or less, e.g., 8-feet by 8-feet by 9 feet).

An American University student apartment tested in December 2023 strongly illustrated the importance of ventilation. The kitchen had one door and no windows. It had a fan that was vented outside, which the residents tended not to use because it was noisy. So during the testing, the fan was left off, and $NO_2$ levels inside the kitchen spiked to 862 ppb, with high readings recorded in the dining area outside the kitchen as well. After completing the 30-minute test, the vent fan was turned on and $NO_2$ levels quickly plunged to 56 ppb. It is clear that good ventilation matters. But many stoves do not vent to the outside, many kitchens lack fans, and many people do not use their fans.



## Oven Use and Higher Emissions

Oven use appears to result in higher $NO_2$ emissions. Initially we planned to use a single testing protocol, setting the oven at 350°F with two burners on high. When some of our testers found that the immigrant families they were working with did not use their ovens, we added a second protocol, turning on all four burners and not the oven.

## Across all kitchen sizes we found:

- Average high $NO_2$ reading with oven and two burners in use: 181 ppb
- Average high $NO_2$ reading with four burners (no oven): 168 ppb

## Fans Rarely Vent Outdoors and Often Go Unused

Unlike gas furnaces, water heaters, and dryers — whose emissions and health-harming pollutants are required to be vented outside — there is no such requirement for gas stoves and the vast majority are not vented to the outside. (Over-stove hood vents that come with microwave ovens catch grease but typically circulate the emissions back into the kitchen.) Our testers observed that whether hood fans vent outdoors or not, residents usually do not use them.

## The Testing Process

We tested homes in the District of Columbia and Montgomery County, Maryland. Recruitment was done through Beyond Gas partners' email lists, neighborhood listservs, social media, word of mouth, and from news coverage.

Residents who wished to have their homes tested were scheduled with our testing teams and instructed to turn on their gas stoves 10 minutes before arrival time, using either the default protocol (oven at 350°F and two burners on high) or the alternate protocol (all four burners on high). The $NO_2$ detector was placed four to six feet from the running gas stove a few minutes before the first measurement.

$NO_2$ levels were recorded when the stove had been on for 15 minutes and 30 minutes.

A third reading was taken 15 minutes after the stove was turned off, and testers also recorded the highest $NO_2$ reading they saw during the test. Testers also measured the kitchen area (width x length x height in feet), noted the kitchen layout (one door, two doors, or open floor plan) as well as the building type (single-family home, rowhouse, or multifamily building). We recorded the number of adults and children in the home, whether any family member had respiratory issues, and, if so, their age.

Test results were shared with residents, comparing $NO_2$ levels in the home with the EPA's outdoor maximum of 100 ppb for one hour of exposure. Testers also offered information on ways to reduce families' emissions exposure, and information on local DC and Maryland programs supporting transitioning homes to electric appliances.

This was not a random sample. We cast the broadest net possible and tested 663 apartments, single-family houses, townhouses, and condos. The test group was influenced by the reach of our organizations, and includes a number of clusters where neighbors reached out to neighbors. That said, the sample of 663 homes was large and varied enough to be able to draw meaningful conclusions about the prevalence of $NO_2$ exposure for families with gas stoves in DC and Montgomery County homes.

# $NO_2$ RISES

In the course of testing, we learned that $NO_2$ from gas stoves does not stay in the kitchen and it often rises in a home. In a handful of cases, we tested and found significant $NO_2$ levels in families' upstairs bedrooms.

### Tony, District of Columbia

We went to test Tony's house in DC's Ward 1. During the testing, Tony was nervous about the emissions because — despite having a spacious kitchen with a 9-foot ceiling and a vent fan in use — the $NO_2$ level had gone up to 112 ppb. As soon as the test was over, he breathed a sigh of relief and switched on the ceiling fan saying "Whew, let's clear this out!" but to our surprise, the $NO_2$ level then spiked to 159 ppb.

### George, District of Columbia

George, a science educator, was already aware of the health issues around burning gas. So he was eager to test emissions levels in his single-family home in the Columbia Heights neighborhood of DC, especially since he and his wife have a baby, who was nine months old at the time. Emissions levels in his kitchen were high, up to 294 ppb. Then George asked us to also test his child's room upstairs. We put the detector in his baby's crib, and were shocked to see a reading of 190 ppb, nearly twice the EPA's maximum for one hour exposure.

### Shruti, Montgomery County, Maryland

In August 2024, Beyond Gas held a training for volunteer testers at Shruti's home, a two-story colonial house in Kensington, Maryland. The kitchen and family room combined to make a large open area. Yet, in the course of the half-hour test, the level of $NO_2$ rose to 121 ppb. After the half-hour kitchen test, Shruti brought the $NO_2$ detector to the bedrooms upstairs, where $NO_2$ measured 133 parts per billion, even higher than in the kitchen.

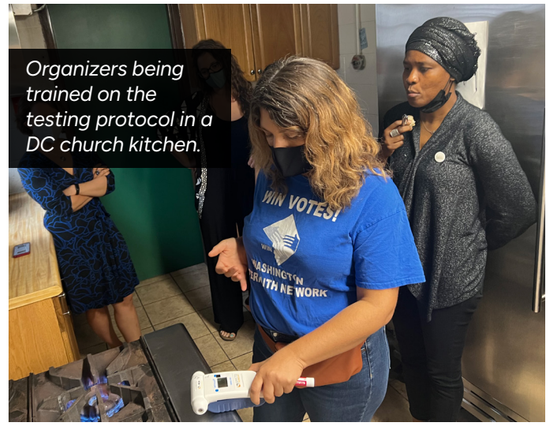
## How Long Does $NO_2$ Persist in the Air After Cooking?

We measured $NO_2$ 15 minutes after the stove was turned off to help determine whether $NO_2$ persists in air or if it dissipates quickly. We found that across all kitchens tested, the average reading 15 minutes after shutoff was 34.7% lower than the highest reading recorded.



However, in 30% of cases, the reading 15 minutes after shut-off was higher than the readings taken while the stove was running, suggesting that 15 minutes may be too short a timeframe for measuring the reduction in $NO_2$ levels after a gas appliance is turned off.

To measure how long $NO_2$ persists after a stove is turned off, we tested five homes for four hours after the stove was turned off. We found that while $NO_2$ levels decline, the reduction is not immediate or steep. Nitrogen dioxide levels remained elevated for hours.



*Organizers being trained on the testing protocol in a DC church kitchen.*

| Location | Highest $NO_2$ reading at any time in first 30 mins | $NO_2$ at 15 mins of stove use | $NO_2$ at 30 mins of stove use | $NO_2$ one hour after shut off | $NO_2$ two hours after shut off | $NO_2$ four hours after shut off |
|---|---|---|---|---|---|---|
| Woodley Park apartment | 101 ppb | 42 ppb | 101 ppb | 74 ppb | 34 ppb | 38 ppb |
| Dupont Circle apartment (window open) | 567 ppb | 448 ppb | 567 ppb | 168 ppb | 75 ppb | 56 ppb |
| Dupont Circle apartment (window closed) | 886 ppb | 693 ppb | 886 ppb | 425 ppb | 168 ppb | 53 ppb |
| H Street rowhouse | 119 ppb | 39 ppb | 119 ppb | 82 ppb | 29 ppb | 15 ppb |
| Cleveland Park apartment* | 153 ppb | 118 ppb | 137 ppb | 84 ppb | 86 ppb | 82 ppb |

*This resident's practice was to open the two windows in his enclosed kitchen while cooking and to close them immediately afterward. The results suggest that it is important to continue ventilation after cooking is completed.

# CITIZEN SCIENCE AND COMMUNITY ORGANIZING

By organizing communities block by block, Washington Interfaith Network (WIN) works to build a shared understanding of the harms of methane gas while strengthening community bonds and mobilizing residents to advocate for social and environmental justice. Through citizen science,

neighborhoods were able to identify the burning of fossil fuels as an issue and then push for the solution of electrification. One DC neighborhood taught us that citizen science is not just a way to collect data and spread information, but also an organizing tool that can change the trajectory of a neighborhood.

River Terrace was developed in the 1930s and 1940s as a planned community primarily for middle-class Black Washingtonians. It was part of a broader effort to address the housing needs of Black residents who faced segregation in other parts of the city. The neighborhood's housing stock mainly consists of rowhouses and garden-style apartments, and like many neighborhoods designed for Black residents, it is no stranger to environmental injustice. River Terrace residents face environmental harms from all sides: bounded by a freeway to the east, a former power plant to the north, a polluted river to the west, and another major roadway to the south.

Thanks to community advocacy, the old oil-fired power plant was shut down in 2015 after 100 years of leaking chemicals and other contaminants into the soil and adjacent Anacostia River. Michelle Hall, a native Washingtonian and longtime River Terrace resident, went door to door in 2002, surveying her neighbors alongside other advocates. She found that families had higher rates of cancer, asthma, and other respiratory conditions compared to the rest of the District. After years of advocating to close the power plant, Ms. Hall


now works to help her neighbors transition off burning fossil fuels inside their homes. She said: "We worked hard to close that power plant and make the air outside our homes safe to breathe. Now we are learning that breathing air inside our homes can also be dangerous. Gas is in our pipes leaking into our streets and when we come home to cook dinner, it greets us in our kitchens."

Rev. Andre Greene of Varick Memorial A.M.E. Zion Church is passionate about his work in the River Terrace community, and counts speaking out for the voiceless as a critical aspect of his ministry. Growing up in North Carolina, he was uneasy about his grandmother's stove, with its biting smell and blue flames. "I thought there's something wrong with how this appliance works. My suspicions were much later confirmed when I learned from parishioners Rosa and Michelle at Varick about the dangers of methane, the primary component of gas."

Working closely with the WIN, Rev. Greene is at the forefront of efforts to improve the quality of life of people in under-resourced communities. He says, "it's reminiscent of my advocacy work (against environmental injustice) in Flint, Michigan." He believes that all communities in the District have a right to thrive with a clean and healthy environment. That is why he enthusiastically agreed to have the level of $NO_2$ tested at his church. With no working fan and a tight space, the levels of $NO_2$ quickly rose to 297 ppb, nearly three times EPA's health-protective standard for one hour of exposure.

Rev. Greene observes, "Communities of color like River Terrace are disparately impacted by pollution. We know this is not by accident, but by design. And now it is time to redesign, to clean our river, to replace unhealthy fossil fuels with clean alternatives. We need to make sure that communities of color are the first to receive the benefits of a clean green economy."


River Terrace residents took what they learned about methane gas through our citizen science research to DC Council and were able to secure $2 million in funding for pilot projects in the River Terrace and Deanwood neighborhoods to help low-income households with energy efficiency upgrades, weatherization, and electrification.

We spoke with a longtime River Terrace resident who owns her home and was able to benefit from the pilot program to switch from gas appliances to an energy efficient electric heat pump, electric water heater, and electric stove. Knowing there was a hazardous gas leak extremely close to her home, she said she wanted to switch to safer and more energy efficient power sources. Nearby, her neighbor Rosa Lee is also making the switch and awaiting electric appliances. Ms. Lee said, "Gas was what I knew and that was it. I had no idea the effect it could have on children's health. I had a child with respiratory issues but never linked that with gas." Michelle Hall added: "When you know better you do better. After knowing the health impacts and seeing the numbers go up firsthand, it encouraged me to want to make the conversion from gas to electric."

In addition to the health and climate benefits of electrification, the pilot program was also designed to support housing preservation and affordability. Many Black-owned homes have been passed down generation to generation and are in desperate need of repairs. Yet as wages have stagnated and the cost of living has increased in the District, many homeowners do not have the ability to take on costly home repairs. As a result, too many Black homeowners are living in dilapidated housing, where they face higher utility bills because these homes are highly energy inefficient.

Community organizing in River Terrace has shown us that through citizen science and support for electrification, we can reverse the tide and begin to invest in Black wealth by ensuring that Black homeowners can afford to remain in place with improved quality of life.

## New or Old, Gas Stoves Emit $NO_2$

One question often asked of our citizen scientists was, "Does this high reading mean something is wrong with my gas stove?" The answer is no. Burning gas produces $NO_2$. Gas stoves are doing exactly what they are designed to do.

**Out of the 663 gas-burning homes tested, not a single one was free of nitrogen dioxide.**

Testing Cara's recently renovated kitchen taught our team that even new appliances in large, open kitchens can have high readings. After watching $NO_2$ levels rise to 237 ppb within 30 minutes, Cara commented, "We had our kitchen renovated and had a gas stove put in just because we had always had a gas stove. We paid a lot for it. I've had on and off respiratory issues, and I definitely would have gotten an induction stove if I knew the risks of gas at the time."

## In Neglected Rental Housing, Gas Pollution Exacerbates Poor Living Conditions

Beyond Gas partner Action in Montgomery (AIM) helps renters in low-income and public housing organize. AIM has integrated gas stove emissions testing (for $NO_2$) into this organizing and advocacy work. In June 2023, AIM organizers tested the home of Abaye, a resident of a complex of high-rise buildings in Silver Spring, Maryland. During a return visit in August, Abaye told AIM organizers:

*"I have lived here for 16 years. My two sons live with me. When I moved in, I liked living here. But since then, there's been a lack of maintenance, mold, and rodents. Just this morning, the mouse traps caught three mice."*

*"I have sinus problems and difficulty breathing. I know my health issues come from poor indoor air quality. I can't stay in the kitchen while cooking. I get congested. My ears get blocked so I can't hear. So I was not surprised to learn about pollution from gas stoves."*

*"When I lived in Kenya, Rwanda, and Uganda, I always used electric stoves. The indoor air quality was better. I would love to electrify. I asked building management if I could switch from a gas stove to electric, but my request was denied. I was happy AIM helped me to get an induction burner."*

*"A few months ago, there was a fire on the 19th floor. Two people lost their lives. Residents smelled gas before we were evacuated. Management said the fire was caused by a cigarette, but we don't believe them. There is no safety here."*



*Glenn tests his father's home in May 2023*

## From Testing to Action

Glenn Hall is a DC native who was worried about his disabled father's health. When Jamoni Overby of Nature Forward suggested he test his father's kitchen for $NO_2$, Glenn jumped at the chance and some of his fears were confirmed. Glenn went on to help with testing in other DC homes.

*"My dad is disabled so I usually am the person who prepares his meals, in his home in Ward 8, where I grew up. He has a decades-old gas stovetop, and over time I started noticing that every time I would cook for him, I would get light-headed or have a severe headache. I knew something was up and understood that burning gas could have health effects, but just didn't understand why. "*

*"When we tested my dad's kitchen, the $NO_2$ readings in the first few minutes passed the EPA's health standards for $NO_2$ exposure. I was blown away, but this gave me the confirmation I needed that something was wrong. My dad's health is my top priority and I want him to be able to safely age in place at our family home. After the test, we switched first to a hot plate and then to an induction burner. "*

*"After this experience, I helped to test other homes in my community. I was able to share my and my dad's story, and to give residents the information necessary to make the same switch we did."*

## Tenant Testing

Adama has spent the past decade leading campaigns to win high-quality after-school programming and new buildings in low-income schools. In 2022, she took of the helm on AIM's $NO_2$ testing, in part over concern for her son's asthma and the ill effects of their living conditions. Adama has since trained six other tenant leaders in $NO_2$ testing in five different housing complexes, together testing more than 325 homes so far. Adama has added methane testing in people's homes, finding several dangerous leaks. She now uses a plug-in induction stove to cook and distributes them to residents when they have gas leaks. Adama brought dozens of leaders to share their concerns at the Maryland Statehouse and with the Maryland Department of the Environment (MDE), helping to win hundreds of millions of dollars for electrification and weatherization. She has also testified in front of Congress to support indoor air quality standards.

Adama says, *"I'm a mother of a son with asthma, a tenant for 23 years, and an organizer who has tested more than 300 low-income apartments with high levels of $NO_2$, worse air quality than what the EPA recommends outdoors. We tenants can't choose whether or not to electrify our homes. We need our landlords to do it, and so we have to organize to make it happen. We want to be part of the solution for climate change and we tenants don't want to be left behind."*

## Working with Landlords

Ana, a leader in AIM and the President of the JoAnn Leleck Elementary School PTA, first started organizing with other tenants in 2015 to improve chronic issues in the apartment complex she has lived in for 15 years. Many residents were experiencing chronic respiratory illness. When Adama and AIM started doing $NO_2$ testing, Ana signed on to test the homes in her community. Because of the relationship Ana and other tenants built with the apartment owner, Kay Management, they are now working together with state officials to make sure Kay Management can access funding to make energy upgrades in the apartment complex.

As Ana testified, *"It is our children who suffer the most from the use of gas. They get sick, they miss school, they don't learn properly. Are we condemned to live like this just because we live in apartments? No. We deserve the right to a clean and safe home. We want Northwest Park to be a model of a clean and healthy community."*




## Speaking Out for Low-Income Residents

The Rev. Catherine Manhardt from St. James Episcopal Church in Potomac got involved in AIM's statewide climate campaign after the creation care team at her church wanted to get more involved in advocacy. Rev. Catherine says, *"God has promised us a future where we are all able to flourish and I believe we have the responsibility to bring our world a little bit closer to that future by caring for creation."*

Rev. Catherine did $NO_2$ testing at her congregation members' homes in Potomac and also at the Enclave Apartments. She realized that while the problem existed at all income levels, there was a disparity in levels because lower-income apartment complexes had poorer ventilation and less efficient appliances. Manhardt felt called to address this disparity. She testified at an hearing for stronger Building Energy Performance Standards and came to advocacy days in Annapolis for EmPOWER Maryland reform. Rev. Catherine observed, *"At these hearings and in the State House, you don't see many regular people, even though our lives will be impacted by legislation and regulations. The legislators told us it left an impression that we brought their constituents to share their personal stories."*


## Making the Invisible Visible

Tifereth Israel Congregation works with Interfaith Power & Light (DC.MD.NoVA). Beyond Gas tested the Silver Spring condo of Rabbi Jason and Devora Kimelman-Block. Three members of Tifereth Israel Congregation had kitchens with gas stoves and $NO_2$ readings over the EPA's health standard limit for outdoor $NO_2$ exposure, but the Kimelman-Blocks' kitchen had the highest readings.

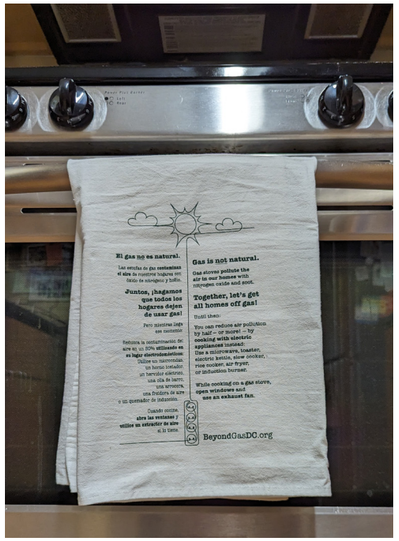
Rabbi Jason's strongest memory was his shock at seeing the $NO_2$ measurement of 450 ppb, 4.5 times the EPA's outdoor $NO_2$ standard. Rabbi Jason describes the experience as *"a wake up call."* After the test, he said:

*"We decided we would try to cut down [on cooking with gas]. We knew what the costs of replacement would be, so we decided to start modifying. We bought ourselves two plug-in induction burners, removed all the burner equipment, and just put the induction burners on our stove. We had a dual convection oven and microwave and started leaning into that a little more for baking. When we do use the gas-burning oven, we make sure to blast the fan. It was a pretty easy adjustment.*

*"The test made the invisible noticeable to us. We raised our kids in the other version and it seemed fine, but now that we have this knowledge, we need to change."*

# RECOMMENDATIONS FOR FAMILIES

## Immediate Actions to Reduce $NO_2$ Exposure from Gas Stoves




**Increase ventilation**

- Open windows and doors when using a gas stove or oven.
- Use the vent fan above the stove or exhaust fan on the wall, if you have one.
- Put a fan in your window to vent gas fumes outdoors during and after stove use.

**Avoid using your gas stove when possible**

- Use electric cooking appliances like a microwave, toaster oven, air fryer, crockpot, or electric kettle.
- Purchase a portable induction cooktop, which can plug into a standard electrical outlet.

## Longer term: Upgrade your home to electric appliances and invest in energy efficiency

Now is a great time to move to healthier, highly efficient electric equipment for heating and cooking. Not only is the market responding to increased demand for induction cooktops through a greater range of products and lower prices, a number of state and federal incentives are available to upgrade to high efficient, clean technology.

- Beginning January 1, 2023, the Inflation Reduction Act offers tax credits of $150 for a home energy audit and up to 30% of the project cost of an electrical panel upgrade, capped at $600.
- Thanks to the passage of the Healthy Homes Act in 2024, low- and moderate-income DC residents will be able to transition their homes off fossil fuels at no cost once the program is set up.
- Under the Affordable Home Electrification program, income-eligible D.C. residents can apply to upgrade for an electric panel upgrade and an induction cooktop free of charge.
- Thanks to the passage of the EmPOWER Maryland Energy Efficiency Act, Maryland will soon increase the amount of rebates and incentives for home energy audits, panel upgrades, and new appliances.
- Income-eligible DC residents can access rebates today from the Inflation Reduction Act for an electric stove. These rebates are expected to become available in Maryland in 2025.
- You can learn more about what programs are available where you are at Rewiring America's IRA Calculator.



# RECOMMENDATIONS FOR POLICYMAKERS

To protect DC and Maryland families from the health threat posed by $NO_2$ and other pollutants emitted by burning methane gas in homes and other buildings, policymakers must accelerate the transition from fossil fuels to clean and efficient electric systems. This will require legislation and programs to incentivize electrification, end wasteful spending on fossil fuel pipelines, and identify funding sources to help households to transition off the fossil fuels harming public health and driving the climate crisis.

## DC Recommendations

**Fully fund electrification and efficiency retrofits in the homes of low- and moderate-income DC residents.**

- In 2024, the DC Council unanimously passed the Healthy Homes Act, which creates a program within the DC Department of Energy and Environment (DOEE) to provide electrification retrofits to 30,000 low- and moderate-income (LMI) residents by 2040 at no cost to the resident.
- The Healthy Homes program will initially be funded by a slight increase to the Sustainable Energy Trust Fund (SETF) fee on utility bills. Low-income families are exempt from the fee. The DC Council should ensure that SETF funding goes to its intended purpose: energy efficiency, renewable energy, and electrification for LMI residents. The SETF should not be raided for unrelated spending.
- The SETF is insufficient to fund all 30,000 retrofits over the next 15 years. The Council will need to identify other funding sources, such as expanding the Renewable Portfolio Standard on electricity to apply to gas and other heating fuels and using the revenue for weatherization, energy efficiency, and electrification for LMI households at no cost to the households.

**Accelerated depreciation of gas pipelines, ensuring that DC residents are no longer paying for multi-billion dollar dirty energy infrastructure costs past 2045, the year DC has pledged to achieve carbon neutrality, making fossil fuel infrastructure obsolete.**

- Washington Gas has sought pipeline replacement spending topping $10 billion.[12] Typically, investments in gas pipelines have been paid off over 60 years or more, meaning costly pipeline replacements this decade would burden DC residents into the 2080s, 40 years after DC is set to stop relying on the fossil fuels that use the pipelines. This is akin to taking out a 60 year mortgage on a home that will become uninhabitable in 20 years.
- DC should enact legislation requiring full cost recovery for all utility fossil fuel assets on a timeline consistent with DC's climate commitment of carbon neutrality by 2045. This will save DC residents billions of dollars in wasteful long-term fossil fuel pipeline spending and allow the money to instead be invested in reducing residents' utility bills through energy efficiency and electrification.

**Begin an orderly transition to continually reduce DC's methane gas piping infrastructure and gas consumption through strategic geographic electrification.**

- DC's utility regulator, the Public Service Commission, has struggled to uphold its statutory mandate to meet DC's climate commitments, which state that the District will transition from fossil fuels like methane gas to efficient electric alternatives. Commissioners have even stated that upholding the financial health of the utilities is more important than the climate.
- DC should enact legislation requiring the Public Service Commission to begin to plan and implement a transition away from methane gas pipelines with targeted electrification in discrete geographic areas that can be fully electrified, eliminating the need for gas piping and freeing residents and business of the multibillion dollar cost of maintaining aging gas pipelines. LMI households will need assistance electrifying through Healthy Homes and other electrification initiatives.

## Maryland Recommendations

**Ensure the Public Service Commission's Future of Gas docket produces a meaningful plan for the equitable transition off of methane gas in Maryland.**

- Through the 2022 Climate Solutions Now Act, the Maryland General Assembly made a statutory commitment to reduce statewide greenhouse gas emissions 60% by 2031 and reach net-zero carbon emissions by 2045. Over 16% of Maryland's emissions come from fossil gas use in buildings across the state, not including the social and climate costs of the associated extraction and transportation, making building electrification and creating a future beyond gas essential to meeting the state's statutorily mandated goals.
- To transition away from gas while protecting Maryland ratepayers, Maryland needs a holistic plan; a Future of Gas proceeding allows for this type of long-term gas system planning. Through the proceeding, and with input from experts, citizen advocates, and utilities, the Public Service Commission can establish an overarching strategy that includes infrastructure planning, equity considerations including how the transition is funded, transition strategies for gas utilities, opportunities to minimize cost and rate impacts, and other foundational considerations.

*Testing the kitchen of Maryland Delegate Lorig Charkoudian.*

**Adopt strong statewide regulations to transition homes and businesses off of gas-burning, through a Building Energy Performance Standard (BEPS) and a Zero-Emission Heating Equipment Standard (ZEHES).**

**Building Energy Performance Standard (BEPS)**

- The Maryland Department of the Environment should adopt and implement a strong Building Energy Performance Standard (BEPS) and ensure effective and equitable implementation. BEPS was established in the Climate Solutions Now Act of 2022, and requires most large buildings, 35,000 square feet or larger and including residential, to reduce on-site pollution, but the final regulation will define how strong and equitable the policy is.



- The final BEPS regulation should include a meaningful pathway, through interim guidance, to include the adoption of an energy use intensity (EUI) standard, a metric that incentivizes efficient electrification, rather than outdated technologies that can end up costing consumers more. Additionally, implementation of BEPS regulations should include funds to help nonprofit buildings subject to BEPS hire a navigator to assist with energy benchmarking and pay for third-party verification. Funds should also be available for energy audits for buildings who do not meet the standards.

**Zero-Emission Heating Equipment Standard (ZEHES)**

- The Maryland Department of the Environment should release draft regulations for an impactful zero-emission heating equipment standard (ZEHES) by June 2025, with a timeline for full adoption by December 2025. ZEHES is a policy that phases in the adoption of heating systems that do not produce climate emissions or air pollution after a certain date; this will provide a market incentive to encourage the adoption of efficient electric appliances, like heat pumps and heat pump hot water heaters.
- The creation of a ZEHES regulation was called for in Maryland's December 2023 Climate Pollution Reduction Plan and in Governor Moore's June 2023 Executive Order to Advance Maryland's Pollution Reduction Plan. Gov. Moore is fulfilling that pledge by creating a pathway to phase in the adoption of highly efficient heating equipment, making a dent in more than 16% of emissions that comes from buildings.

**Reform the Maryland Strategic Infrastructure Development and Enhancement (STRIDE) program to ensure public dollars are no longer wasted on dirty infrastructure.**

- The Maryland Strategic Infrastructure Development and Enhancement (STRIDE) program is a mechanism where utilities can be reimbursed for repair, replacement, and development of gas infrastructure in the name of safety, but with minimal oversight and accountability. Maryland's gas utilities have spent more than $2 billion on new gas infrastructure under the STRIDE program since it was enacted in 2013. If allowed to continue unchecked, the utilities are projected to spend another $8 billion.
- Maryland should adopt legislation that would modernize the existing STRIDE program to prioritize using safe alternatives to replacement, including leak detection and repair in conjunction with electrification.

**Adopt an all-electric building code for new construction.**

- To meet its net zero carbon pollution by 2045 commitment, Maryland should not allow new buildings to burn fossil fuels that directly spew carbon pollution into the air.
- State legislators and municipalities should adopt legislation that would require new buildings in Maryland meet their space and water heating needs without the use of fossil fuels. This has already been done in Montgomery County, and is under consideration in other counties. This policy would cost nothing, save Marylanders money, and reduce pollution.

## DC and Maryland are on the Path to 100% Clean Electricity

One of the questions we hear most is, "Why should we transition homes and buildings to electricity when electricity is generated by coal and gas?" In fact, our electricity grid is already cleaner than methane gas in both DC and Maryland and we are on the path to 100% clean electricity.

Since the Clean Energy DC Omnibus Act passed in 2018, DC has been increasing its share of electricity from renewable sources every year. In 2018, 16.5% of DC's electricity was from clean sources, in 2024 it was 45% renewable, and in 2025 a majority of DC's electricity – 52% – will come from clean sources like wind and solar. By 2032, 100% of DC's electricity will be from renewable sources.

Maryland first passed its Renewable Energy Portfolio Standard in 2004 and has since updated the program to strengthen its targets. Maryland has committed to generating 14.5% of the state's electricity from solar by 2030. Through the passage of the POWER Act in 2022, Maryland set a statutory target of deploying 8.5 gigawatts of offshore wind energy by 2031. The state is exploring more ambitious targets through Governor Moore's commitment to achieving 100% clean energy by 2035. Electrifying is better than gas-burning for the climate today, and every year the math gets better.


# CONCLUSION

Burning methane gas in homes is not making our lives better as our gas utility claims. It is damaging Earth's ecosystems, and the pollutants from gas burned in our homes are making our families sick.

We have better alternatives like heat pumps for heating and cooling and induction stoves for cooking, which are healthier, more efficient, and less expensive to operate. Advocates in climate, faith, and low-income communities can play a critical role in spreading the word, organizing our neighbors and, together, pressing for policies to speed the transition off gas. Citizen science investigations like this one allow us to see and measure the pollutants from burning gas in our homes, bringing communities together to advocate for electrification, cleaner air, and affordable housing. The Beyond Gas citizen science teams in the District of Columbia and Maryland will continue investigating the threats burning gas poses to our communities.




# ACKNOWLEDGEMENTS

We'd like to thank the team of over a dozen Beyond Gas volunteers and staff who contributed their time, insights, and expertise to the writing of this report:

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- Sidra Siddiqui
- Joshua Tulkin
- Richard Vilmenay

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- Estefani Rondon
- Sidra Siddiqui
- Cara Spencer
- Maria Lucia Vasquez
- Sarah Wood
- Sergine Yango

# APPENDIX

## Glossary

**Climate-friendly:** not harmful to the environment, especially not contributing to climate change through production of heat-trapping greenhouse gasses.

**Citizen science/scientist (also community science/scientist):** a person without specialized training who contributes to scientific work, for example collecting information to help scientists.

**COPD:** Chronic Obstructive Pulmonary Disease, a long-term lung disease that makes breathing more difficult.

**Correlation:** a connection or relationship between two or more things which may or may not be causal.

**EPA:** Environmental Protection Agency: U.S. government agency mandated with protecting human health and the environment.

**Fossil fuel:** An energy source such as gas, coal, and oil formed from decayed organic material, or prehistoric plants and animals buried under layers of rock.

**Induction cooktop:** an all-electric stovetop burner that uses electromagnetic energy to heat compatible pots and pans.

**Inflammatory agent:** a substance that stimulates an inflammatory response in the body.

**Methane:** a combustible gas with no smell or color, that is the main component of "natural" gas.

**Natural gas:** A fossil fuel used for heating, cooking and in industrial processes, composed mostly of methane with smaller amounts of ethane, propane, and other gasses.

**Nitrogen dioxide ($NO_2$):** a chemical compound formed with one nitrogen atom and two oxygen atoms, primarily produced by burning fossil fuels. $NO_2$ is a pulmonary irritant and inflammatory agent in the body.

**Parts per billion (ppb):** a unit of measurement used to express the concentration of a substance in a solution or mixture. It indicates how many parts of a substance are present in one billion parts of the total mixture, making it a vital metric for assessing concentrations of gasses and pollutants in the atmosphere.

**PCB:** Polychlorinated biphenyl, a highly toxic and carcinogenic chemical compound used in industrial applications and consumer electronics before being internationally banned in 2001.

**Pollutant:** a substance that causes pollution, especially in the air or water.

**Pulmonary irritant:** a substance that causes irritation or inflammation in the lungs when inhaled.



## Citations


1 Nature, March 14, 2024, Sherwin et al, "U.S. oil and gas system emissions from nearly one million aerial site measurements." The study, led by Stanford scientist Evan D. Sherwin, found that methane emissions from six major drilling areas were "roughly three times the national government inventory estimate."

2 In March 2020, Beyond Gas DC asked Washington Gas and DC's Public Service Commission for their data on gas leaks in DC. The request was denied because the data on gas leaks in our neighborhoods is "confidential" and not allowed to be known to DC residents.

3 February 2022 report, Neighborhood Researchers Find Hundreds of Methane Gas Leaks Across DC.

4 Highlights for Appliances in U.S. Homes by State, 2020, U.S. Energy Info. Admin., https://www.eia.gov/consumption/residential/data/2020/state/pdf/State%20Appliances.pdf

5 Kashtan Y, Nicholson M, Finnegan CJ, et al. Nitrogen dioxide exposure, health outcomes, and associated demographic disparities due to gas and propane combustion by U.S. stoves. Science Advances. 10(18):eadm8680. doi:https://doi.org/10.1126/sciadv.adm8680

6 Lin W, Brunekreef B, Gehring U. Meta-analysis of the effects of indoor nitrogen dioxide and gas cooking on asthma and wheeze in children. International Journal of Epidemiology. 2013;42(6):1724-1737. doi:https://doi.org/10.1093/ije/dyt150

7 Gruenwald, T.; Seals, B.A.; Knibbs, L.D.; Hosgood, H.D., III. Population Attributable Fraction of Gas Stoves and Childhood Asthma in the United States. Int. J. Environ. Res. Public Health 2023, 20, 75. https://doi.org/10.3390/ijerph20010075

8 Gruenwald et al. "the proportion of childhood asthma that could be theoretically prevented if gas stove use was not present…varied by state (Illinois = 21.1%; California = 20.1%; New York = 18.8%; Massachusetts = 15.4%; Pennsylvania = 13.5%)

9 Environmental Research, Vol 183, April 2020 "Exposure to ambient air pollution and early childhood behavior: A longitudinal cohort study" Loftus et al.

10 EPA Primary National Ambient Air Quality Standards (NAAQS) for Nitrogen Dioxide.

11 In part this was because our study design prioritized testing families under usual cooking conditions, with vent fans on or off, windows open or closed, etc.

12 The DC Department of Energy and Environment estimated the upfront cost of the Washington gas pipeline replacement proposal to be up to $4.5 billion (Direct Testimony of DC government witness Edward Yim, FC1154-115, June 15, 2020). The economic consulting firm Synapse Energy Economics found that using a conservative estimate of the upfront cost, the total cost once debt service and corporate profits are added would up to $14 billion (Comments of the District Department of Transportation with the assistance of Synapse Energy Economics, FC 1175, May 2, 2023).

BEYOND GAS

beyondgasdc.org | beyondgasmd.org

**John Stith Testimony SB804 Favorable.pdf**
Uploaded by: John Stith
Position: FAV

**SB 804 - FAVORABLE**

John Stith
john.stith@gmail.com 301-502-3634

**SB 804 - Maryland Building Performance Standards -
Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards
(Better Buildings Act of 2025)**

Education, Energy, and the Environment Committee
February 27, 2025

Dear Chair Feldman, Vice Chair Kagan, and Members of the Education, Energy, and the Environment Committee.

I live in the Carole Highlands neighborhood of Prince George's County, in Legislative District 47B. My address is 7219 16th Ave, Takoma Park.

When my wife and I got married we rented our first house together, here in Carole Highlands. Little did we know, our landlord was making one crucial mistake: They hadn't put a cap on the flue – the chimney that vented our gas boiler.

As rain fell straight down the flue, it pooled in our boiler and within a few years rusted it full of holes. The boiler died in the middle of the cold January of 2022, and the price tag to repair it was in the thousands.

Natural gas heaters, appliances, and flues are fragile, rickety, dangerous devices. Flues have to be capped and brought up to code to prevent chimney fires. Gas leaks so much that utilities add a scent so we can find the leak before there's an explosion. We have carbon-monoxide detectors so a single mistake doesn't kill us in our sleep. We suffer and die from respiratory diseases and cancer because of the pollutants created by burning gas in our homes.

When our gas boiler died, the technician that came to diagnose it said the carbon monoxide in our utility closet was at very dangerous levels.

Another contractor smelled gas in our attic. We had a gas leak inside our house! That was a $400 emergency repair bill.

Our chimney company said the bricks on our flue chimney were so loose they could fall off and hit us on the head as we walked out the front door. Another $800 repair bill.

Having several ongoing fires to burn natural gas in our homes, then trying to vent out the pollutants, is a “last generation” technology. And it’s driving climate change that will bring droughts to our farmers and harm our kids’ futures.

Electricity – solar panels, heat pumps, batteries – is the growing technology of the 21st century. Our new heat pump cost less than buying a new gas boiler. Solar power is growing quickly and the advances in battery technology is astounding. I volunteer with the Chesapeake Climate Action Network because together we are bringing this good news from other states so Maryland can also be a leader in protecting our homes and health, rather than lagging behind.

New buildings in Maryland should be required to be heated with energy-efficient technology, as proposed by the Better Buildings Act. In the long run this will be cheaper for our state, reducing poverty. And as a matter of consumer protection, Marylanders deserve protection from the many dangers of natural gas.

**SB804 - CASA Written Testimony.pdf**
Uploaded by: Jose Coronado Flores
Position: FAV

**Testimony in SUPPORT of SB804**
**Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation, and Electric– and Solar–Ready Standards (Better Buildings Act of 2025)**
Senate - Education, Energy, and Environment
Jose Coronado-Flores, On Behalf of CASA

February 27th, 2025

Dear Honorable Chair Feldman and Members of the Committee,

CASA is pleased to offer **favorable testimony in support of SB802**, because it is important legislation that will address **local pollution reduction and a guarantee that future affordable housing stock will be safe and emissionless.** In particular, CASA is invested in seeing this bill pass, because our members want clean new affordable housing stock that will imminently develop across the state. A new transit system like the Purple Line will hopefully spur the development of new affordable housing in the vicinity. It is critical that these new multi-family housing communities come with minimal or no on-site emission.

Following this example of development on the Purple Line, consider the neighborhood Quebec Terrace in Silver Spring, which will be right next to the anticipated Piney Branch stop. According to a mapping tool developed by the Washington Post, over 75% of the households in the two census tracts in this neighborhood use gas for heat and cooking. Combine this with the immense amount of daily traffic pollution from University Boulevard, Piney Branch, and New Hampshire, this neighborhood has one of the highest pollution exposure scores in the state, according to data from MDE, without any active air-emission industrial facilities nearby. This is due to the emissions generated by traffic and residential gas usage. This same community, specifically on Long Branch, even experienced a catastrophic gas explosion that claimed the lives of 7 people in 2016. The new buildings that replaced the obliterated exploded buildings are all electric - this means something.

My last point is the current issue of consumer choice. From Baltimore City to Montgomery and Prince Georges, in our communities with older housing stock of any kind, they are overwhelmingly gas-utilizing buildings. We must guarantee that families that want the choice between gas and electric buildings have that choice.

We cannot add more polluting buildings to this community or any other in the state. Our neighborhoods desperately need clean new buildings for families to live in and feel safe. For these reasons, CASA urges a favorable report.

Jose Coronado-Flores
Research and Policy Analyst
jcoronado@wearecasa.org, 240-393-7840

**MF_SB 804_ Better Buildings Act.docx.pdf**
Uploaded by: Kathy Kinsey
Position: FAV

**Committee: Senate Education, Energy, and the Environment**
**Testimony on: Senate Bill 804 – Better Buildings Act of 2025**
**Organization: Mobilize Frederick**
**Submitting: Karen Cannon, Executive Director**
**Position: Favorable**
**Hearing Date: February 27, 2025**

Dear Chair Feldman, Vice-Chair Kagan,, and Committee Members:

Thank you for the opportunity to comment on Senate Bill 804 – the Better Buildings Act of 2025. Mobilize Frederick urges the Committee to issue a **favorable** report on this bill.

Mobilize Frederick is a nonprofit community climate advocacy organization formed to assist with implementing the recommendations of the 2021 Climate Response and Resilience Report (CRRR). The CRRR is a comprehensive climate action plan chartered by the City of Frederick and Frederick County designed to put Frederick City and County on the path to safer, healthier, and more resilient communities through innovative and effective local solutions to address climate change.

Senate Bill 804 is a vitally important step toward decarbonization of our building inventory, which accounts for 13% of economy-wide greenhouse gas emissions. SB 804 has three key components. First, the bill would require new and significantly improved buildings to meet space and water heating needs without the use of fossil fuels. Those limited number of buildings that are eligible for and receive a waiver from electric heating requirements under the bill based on feasibility must meet electric-ready standards. Second, the bill would require new buildings 20 stories or less in height with 20,000 or more square feet of roof space to be solar-ready. Finally, starting in 2027, the bill sets increasingly more stringent building energy efficiency standards through 2033 and beyond.

The energy efficiency of heat pumps has been continuously improving. Today, heat pumps are three to four times more efficient than fossil fuel fired heating equipment, even in the winter months when they are two to three times more efficient. Because they use significantly less energy, they save homeowners and renters money on their monthly utility bills.

We cannot achieve Maryland's commitment to net-zero carbon pollution by 2045 without transitioning to all-electric buildings and significantly expanding use of rooftop solar energy. Allowing new construction to use natural gas for space and water heating needs means a continuing investment in infrastructure that will need to be retired over the course of the next two decades before the end of its useful life. The cost of this continuing investment will ultimately fall on ratepayers.

All-electric energy efficient solar-ready buildings reduce carbon pollution, improve air quality and public health, and lower consumer utility bills. For all the foregoing reasons, we urge the Committee to issue a **favorable** report on Senate Bill 804.

Karen Cannon
Executive Director

cc: Kathy Kinsey
Chair, Government Affairs and Policy Committee

**SB0804 Better Buildings Act 2025.pdf**
Uploaded by: Kelsey Ritter
Position: FAV

**Testimony Concerning Senate Bill 0804**
**Better Buildings Act of 2025**
**Position: Support**
**Hearing date: February 26, 2025**
**Kelsey Ritter**

**The Honorable Members of the Education, Energy, and the Environment Committee**
**Maryland General Assembly**
**Annapolis, Maryland**

Dear Members of the Education, Energy, and the Environment Committee,

My name is Kelsey Ritter, and I am a student from Atholton High School in Howard County Maryland, and a member of Electrify HoCo. I am writing to urge you to pass the Better Buildings Act (HB973/SB804), not just because it makes sense politically, economically, or scientifically—but because my generation is running out of time to fix a crisis that is not ours.

I'm 16. I can't vote. I don't get a say in who represents me or the policies that shape my future. But I do know this: the decisions made today will determine the kind of world I inherit. And right now, that world is burning, flooding, and suffocating under the weight of outdated, fossil-fuel-dependent systems that we have the power to change.

I grew up in Maryland, where we've seen firsthand what inaction looks like. I can remember spring days when the air was so thick with Canadian wildfire smoke, making it dangerous even to go outside. I have seen Ellicott City flood so intensely that entire streets became rivers. These disasters are no longer distant threats. They are here. And they are happening with increasing frequency because we continue to build and live in ways that ignore the realities of climate science.

More than 100 state and local governments, including jurisdictions in Colorado, California, and New York, have already taken similar action to require all-electric new construction. Here in Maryland, Montgomery, and Howard Counties have led the way with local policies, and the state has already committed to eliminating on-site emissions for large buildings over 35,000 square feet by 2040. However, to truly meet our climate goals and protect our communities, we must extend these standards to all new buildings, ensuring they are built to be energy-efficient and free from fossil fuel reliance from the start.

The building sector accounts for an overwhelming 16% of Maryland's greenhouse gas emissions. Every time we approve new fossil fuel infrastructure, we are locking in decades of emissions, pushing us further into climate catastrophe. It isn't just about reducing emissions. Instead, it's about rejecting the idea that we have to be trapped in a cycle of environmental destruction when we have the technology, the knowledge, and the resources to build differently.

Some will argue that transitioning to all-electric buildings is too expensive. But the reality is, that doing nothing is far more costly. Maryland families will save money with high-efficiency electric appliances, and as our grid moves toward renewable energy, those savings will only grow. More

importantly, the cost of inaction—on healthcare, disaster recovery, and infrastructure repair—is staggering. I may not be able to vote yet, but I refuse to be silent about the policies that will shape my future. The Better Buildings Act is not just legislation—it is a necessary step toward a future where Maryland leads with innovation rather than clings to the past. I urge you to pass this bill. Do it for public health. Do it for economic resilience. Do it for my generation—because we deserve a future that isn't defined by the mistakes of the past.

Thank you for your time and consideration.

Kelsey Ritter,
Student, Sophomore at Atholton High School
Member, Electrify HoCo

**2025 - SB 0804 - Better Buildings Act of 2025.pdf**
Uploaded by: Ken Phelps Jr
Position: FAV

THE EPISCOPAL DIOCESE OF MARYLAND

The Maryland Episcopal Public Policy Network

**Testimony in Support of SB 0804**

**Better Buildings Act of 2025**

****FAVORABLE****

TO: Senator Brian J. Feldman, Chair; Senator Cheryl C. Kagan, Vice Chair; and the members of the Senate Education, Energy and the Environment Committee

FROM: Rev. Ken Phelps, Jr., Director, Maryland Episcopal Public Policy Network, Diocese of Maryland

DATE: February 27, 2025

The season of Lent calls the Church at this time to confess "our self-indulgent appetites and ways," "our waste and pollution of God's creation," and "our lack of concern for those who come after us" (Ash Wednesday Liturgy, Book of Common Prayer, p. 268).

Lent is also the season of the prophets.

Prophecy is a critical response to the excesses of society. It is marked by its fierce commitment to humanity and speaks to the perception of potentialities and possibilities - both for good and evil - within the social structure. Prophets hold up the mirror of existence and force us to take a look, a hard, honest look at whom we really are and the conditions that we have created

The mirror never lies. The prophets were God's inconvenient messengers. And when the activity of the people, or lack thereof - had moved the society to a tipping point, the prophets came with a warning about the wrath to come. Not the wrath of God, but the inescapable and often catastrophic consequences that were the product of their own doing. The warnings were dire, but they still carried with them the fleeting hope that if behaviors changed, disaster might be avoided.

Our collective histories reflect how often we have taken prophets' messages to heart. Our mother is dying. Her prophets - speaking for decades now - have made that quite clear.

THE EPISCOPAL DIOCESE OF MARYLAND

The Maryland Episcopal Public Policy Network

The mirror never lies. Each of the last ten years has ranked among the globally hottest ten years ever recorded. Compared to the magnitude of the climate crisis that humans face, SB0804 is a very modest policy bill even though this is not a time for incremental steps.

Maryland has statutorily committed to reaching net zero carbon pollution by 2045 – just 21 years from now. The Governor has recently advanced a comprehensive plan to make those required reductions with a necessary but large price tag. Why then allow new buildings to burn fossil fuels that directly spew carbon pollution into the air beyond the statutory net zero date. Why then allow buildings to waste electric energy that must be generated for the foreseeable future with at least some percentage of carbon-emitting fuels.

SB0804 addresses both of those areas. After a reasonable transition period, the bill would disallow direct burning of fossil fuels for heat and hot water energy in most new buildings. It would also speed up the international model energy codes process to make new buildings more energy efficient, giving Maryland a better shot at reaching its 2045 targets. Passing the Better Buildings Act would entail little or no cost additional to the state.

Much of the text of SB0804 is similar to the Climate Solutions Now Act as originally introduced in 2021 and passed in 2022. But the 2022 Climate Solutions Now Act's requirement that "new buildings meet all water and space heating demand without the use of fossil fuel" was dropped out of the bill in favor of a grid capacity study, which has shown that Maryland's utilities have plenty of capacity to accommodate new building electrification. SB0804 would restore the language dropped out of the Climate Solutions Now Act in 2022 and add reasonable energy conservation, EV charging readiness, and solar readiness provisions that would move us more rapidly towards a 100% clean energy future.

Requiring new buildings to be largely fossil free has corollary benefits for Marylanders as well, in at least three ways:

- Avoiding fossil fuel heat and hot water appliances that vent to the outside would reduce outdoor air pollution, which is a serious health problem in densely populated areas and has significant environmental justice implications.
- New homes and buildings that avoid fossil fuel lines and appliances for cooking, while not required by the bill, would be much better indoor environments for the respiratory health of children and adults.

- Owners and tenants in new homes and buildings that avoid the enormous cost increases projected for the delivery of methane gas would enjoy significant savings on their ongoing fuel bills.

We are grateful that the General Assembly has set high statutory climate goals and has required public and private plans to meet them. With a handful of other states and DC, Maryland stands out as a model and inspiration for other states and localities. There is no policy that makes more sense to achieve Maryland's climate goals while providing significant public health and economic benefits to consumers than electrifying and conserving energy in new construction.

We have an opportunity here. This is the appointed time for all God's children to work together for the common goal of renewing the earth as a hospitable abode for the flourishing of all life, not just human.

Our mother is dying. There may still be time to save her, but we must act swiftly and definitively to accomplish that goal.

We urge a favorable report.

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**2025 SB804 testimony from Climate Mobilization.pdf**
Uploaded by: Kevin Walton
Position: FAV

**SB804 - SUPPORT**
Kevin Walton
The Climate Mobilization,
Montgomery County
kmwalton@gmail.com
860-575-9407

# SB804 - Better Buildings Act

Education, Energy and the Environment Committee
February 27th, 2025

Chair Feldman, Vice Chair Kagan, and Members of the Education, Energy and the Environment Committee

- My name is Kevin Walton, I live in Montgomery County, and I am here representing The Climate Mobilization of Montgomery County. Our organization urges a favorable report for SB804, the Better Buildings Act.

- My experience with building energy performance and electrification includes:
  - serving since 2022 as the Chair of Montgomery County Building Energy Performance Board, which advises on the county's Building Energy Performance Standards law, and
  - serving as a Subgroup co-Chair for the 2023 Maryland Building Energy Performance Task Force.

- This week, Montgomery County passed by unanimous vote the regulations to implement the 2022 Building Energy Performance Standards law. This will result in increased building electrification across the County.

- An arduous and time-consuming process was required to reach the final set of regulations that was acceptable to building owners, residents of multifamily buildings and all the other groups and constituents affected by the law.

- A new construction building electrification law, similar to SB804, was passed by unanimous vote in Montgomery County in 2022. This law also required an extended vetting process prior to a final vote.

- Despite these achievements at the local level, there are several reasons why the state should now take the lead in new building electrification:
  - The issues surrounding the requirements for new construction of electrified buildings are no different in Montgomery County than they are in Howard, Prince Georges, Anne Arundel, Somerset, or Baltimore Counties, or in Baltimore City.
  - A state law will create the greatest clarity for builders and building owners, knowing that all jurisdictions have the same minimum requirements.
  - The law will position Maryland as a major leader in sustainable construction, creating business opportunities across the state and the region.
  - Having the state take the lead on new building electrification creates the most efficient process to build the most efficient buildings.

- In conclusion, The Climate Mobilization urges passage of SB804, The Better Buildings Act because it will promote clarity and consistency across the state as we rise to meet the challenges of energy use, climate change, and quality living and working spaces.

Thank you for your time.

Kevin Walton

## SB804 Better Buildings Act - Maryland Climate Part

Uploaded by: Laura Bartock

Position: FAV

**FAVORABLE TESTIMONY for SB 804**
**Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)**
Senate - Education, Energy, and Environment Committee
February 27th, 2025

Dear Honorable Chair Feldman and Members of the Committee,

Maryland Climate Partners is pleased to offer favorable testimony in support of SB 804, the Better Buildings Act. Maryland Climate Partners is a coalition of over one hundred environmental, faith, consumer advocacy, and social justice organizations focused on ensuring equitable implementation of the Climate Solutions Now Act.

The Better Buildings Act has three key provisions for all new buildings: 1) meeting space-heating, water-heating, and laundry requirements without the use of fossil fuels; 2) energy conservation requirements; and 3) electric-ready and solar-ready requirements to ensure future upgrades for building owners are low-cost. Taken together, these three provisions will help the environment, health, and pocketbooks of Marylanders.

The Climate Solutions Now Act (CSNA) of 2022, and subsequent Climate Pollution Reduction Plan, propose strategies for Maryland to reduce its carbon impact and to improve public health and economic prosperity for all Marylanders. Pollution from burning fossil fuels to heat buildings accounted for 16% of pollution in 2020. The climate plan recommends strategies to transition to electric appliances, lauding the greenhouse gas (GHG) reductions as well as increased efficiency. The Better Buildings Act takes the critical step of ensuring that new buildings are designed to meet their space and water heating needs without the use of fossil fuels.

CSNA directed the Public Service Commission to assess the feasibility of an all-electric construction standard. The study came out in December 2023 and showed Maryland electric systems can handle high levels of electrification through 2031, enabling the Maryland building sector to decarbonize at a pace consistent with meeting the goals of 60% GHG reduction by 2031.

By requiring all newly constructed buildings to meet their space and water heating needs without the use of fossil fuels, SB 804 will encourage the use of electric equipment. The bill also includes a provision of solar readiness for buildings under 20 stories tall so that we can deploy even more clean energy options. Maryland Climate Partners robustly supports this bill, because building decarbonization is essential for meeting the state's codified GHG reduction targets, creating healthier communities, and mitigating climate change to prevent the worst impacts of a destabilized climate.

This legislation is popular nationwide, with the state of California and New York City being two of the biggest adopters of new building electrification bills. Furthermore, Howard County and Montgomery County have already enacted versions of the Better Buildings Act along with the Maryland Department of Energy giving its endorsement to the legislation.

For these reasons, Maryland Climate Partners respectfully requests a favorable report on SB 804.

**SB0804_FAV_Third Act Maryland.pdf**
Uploaded by: Laura Welch
Position: FAV

**SB0804 - SUPPORT**
Laura Welch
Third Act Maryland
maryland@thirdact.org
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# SB0804- Better Buildings Act

Energy Education and Environment Committee
February 27th, 2025

Chair Feldman, and Members of the Energy Education and Environment Committee,

On behalf of my organization Third Act Maryland, I urge a favorable report on SB0804. The Better Buildings Act is a bill that would help the environment, health, and pocketbooks of Marylanders. It will also help us reach our clean energy goal to reach next zero by 2045.

All-electric building codes decrease lifetime energy consumption and reduce the cost of construction by thousands of dollars. Operating costs also decrease with electrification – this is especially beneficial to lower-income residents who pay a higher share of their income on energy bills.

This legislation is also popular nationwide, with the state of California and New York City being two of the biggest adopters of new building electrification bills. Similar legislation has been enacted by more than 100 state and local governments, including Montgomery County. The Better Buildings Act will strengthen clean energy in Maryland while saving households money on energy bills and medical expenses caused by the current fossil-fuel furnace infrastructure.

I'm a physician and would like to draw your attention to the health effects of gas infrastructure and appliances in buildings. Gas stoves emit nitrous dioxide, which is an irritant to the lungs and is a known cause asthma. Many homes with gas burning stoves have levels of nitrous oxides which would exceed EPA's outdoor air quality standards! (There are currently no standards for indoor air.) And it is well known that gas pipes can leak methane, which is very flammable and has caused property destruction and deaths every year in Maryland. Electrification would eliminate these hazards, improving life across the state.

I urge you to reach a favorable report on SB0804.

**SB804_Better Buildings Act_EEE CJW FAV.pdf**
Uploaded by: Laurie McGilvray
Position: FAV

| | |
|---|---|
| **Committee:** | **Education, Energy and the Environment** |
| **Testimony on:** | **SB804 - The Better Buildings Act of 2025** |
| **Organization:** | **Maryland Legislative Coalition Climate Justice Wing** |
| **Submitting:** | **Monica O'Connor, Co-Chair** |
| **Position:** | **Favorable** |
| **Hearing Date:** | **February 27, 2025** |

Dear Chair and Committee Members:

Thank you for allowing our testimony today in support of SB804, The Better Buildings Act of 2025. The Maryland Legislative Coalition (MLC) Climate Justice Wing, a statewide coalition of nearly 30 grassroots and professional organizations, urges you to vote favorably on SB804.

The Better Buildings Act does just what its name implies – it requires most new buildings to be built smart from the start, with better energy conservation and no on-site fossil fuel combustion for space and water heating. It will encourage the use of electric equipment and includes a provision of solar-readiness for buildings under 20 stories tall for future deployment of even more clean energy options.

SB804 implements a simple vision of how we want our public and private buildings to be - less expensive to operate, and much better for the climate crisis we face. It is a common-sense bill that ensures that new construction utilizes highly efficient, cost-effective electric appliances that use less energy, lower utility bills and are less polluting.

Today's heat pumps are three to four times more efficient than fossil fuel heating equipment, and remain two to three times more efficient even in winter weather. According to a report by the Building Decarbonization Coalition (BDC), the average heat pump uses as much as 29% less electricity during periods of peak demand than a central AC unit. The Maryland Energy Administration states, "heat pumps are an essential tool to lowering monthly energy bills and keeping electricity demand low year-round." Across Maryland, 98% of households using high-efficiency electric appliances in place of fossil fuel heating equipment can save money on their monthly energy bills. The median low-income household in Maryland would save $373 per year by replacing a gas furnace with an all-electric heat pump.

According to a report issued by The Maryland Public Service Commission, the grid can handle increased high rates of electrification in buildings, and transportation. The Better Buildings Act only affects new buildings, which is a small subsection of the entire building stock. If the grid can handle economy-wide electrification it can more than handle new building electrification, because it represents a small percent of the total building stock in the state. What's more, SB804 could actually decrease electricity demand through energy efficiency measures in contrast to constructing new buildings without these measures. In addition, larger buildings would have to meet efficiency measures under the building energy performance standards in the future and it makes more sense and is less costly to build smart from the start. Maryland's electricity demand has decreased over the past ten years thanks to energy efficiency investments that the state has made. The Better Buildings Act builds on this success by improving energy efficiency requirements for new buildings.

By law, Maryland has just 20 years to reach net zero carbon pollution emissions as mandated in the Climate Solutions Now Act of 2022. Because buildings account for 13% of the state's polluting carbon emissions, it is impossible to meet these targets if we continue to utilize fossil fuels for space and water heating. The net effect of passing the Better Buildings Act would be to reduce carbon pollution emissions and substantially lower utility costs for homeowners and renters. This legislation is popular nationwide, with the state of California and New York City being two of the biggest adopters of new building electrification bills. Furthermore, Howard County and Montgomery County have already enacted versions of the Better Buildings Act along with the Maryland Department of Energy giving its endorsement to the legislation.

For these reasons MLC Climate Justice Wing respectfully requests a favorable report on SB804.

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

## sb804 building code, energy standards EEE 2-27-202

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 Environment Committee
on
# House Bill 804
February 26, 2025
Position: **Favorable**

Mr. Chairman and members of the Committee, thank you for the opportunity to support caring for creation with a decarbonizing energy policy. 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 with three judicatories in every part of our State.

**Senate Bill 804** will require the Maryland Department of Labor to adopt electric- and solar-ready standards for *existing* buildings undergoing renovation. That inventory remains at risk for exemption in the process of decarbonizing.

The standards return to established International Building, and the International Energy Conservation Codes as in CSAN goals. Use of the Department of Labor permitting authority ensures that standards become uniform across the built inventory and will scale them for capacity and cost, which is the real goal of having a standard.

We like this bill for what it will do for the atmospheric decarbonizing project that we hold is an obligation for public good, expense, and safety risk in the commons. And we are urging your favorable report.

Lee Hudson

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**SB0804_FAV_BetterBuildingsAct_EEE_HoCoCA.org.pdf**
Uploaded by: Liz Feighner
Position: FAV

HoCoClimateAction.org
Howard County, Maryland

**Testimony:** SB0804: **Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation, and Electric– and Solar–Ready Standards (Better Buildings Act of 2025)**
**Hearing Date: March 27, 2025**
**Bill Sponsor: Senator Brooks**
**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. We enthusiastically **urge you to support SB0804**, The Better Buildings Act, which requires most new buildings and substantial improvements to be built smart from the start, with better energy conservation and no on-site fossil fuel combustion for space and water heating.

HoCo Climate Action has been advocating for building decarbonization since October 2020 and soon after spearheaded a campaign to electrify all new buildings in Howard County. We actively supported the Climate Solutions Now Act of 2022 (CSNA) but were disappointed that it passed with only a study for all-electric new buildings, so we pivoted back to our Electrify HoCo campaign. In March 2023, the County Council passed the Clean New Buildings Climate Act (CB5-2023), requiring the County Executive to submit a report on changes needed to the county building code to ensure that future homes and buildings in Howard County rely on all-electric appliances, as well as several related policy items. This bill put the county on the pathway to all-electric new buildings. In November 2022, the Montgomery Council also voted to require new all-electric building standards.

Like most Marylanders, we want to see action on protecting our climate and health. Furnaces and water heaters fired with fossil fuel cause 16% of Maryland's greenhouse gases. Every new building that installs fossil fuel appliances adds to air pollution and climate change when the state is simultaneously devoting substantial funding on efforts to reverse these trends. CSNA commits us to a 60% GHG reduction by 2031 and net zero by 2045. The year 2031 is a mere 6 years away, and 2045 is in 20 years. New appliances typically last 15 years and more. It is counterintuitive to continue to permit buildings that make efforts to achieve our climate goals more difficult to achieve.

The urgent need to transition away from burning fossil fuels in buildings was outlined in several official Maryland reports finalized in December 2023:

- *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* (Maryland Commision on Climate Change 2023 Annual Report p.3)

- *We are motivated by our shared vision of a future where every building is fossil-fuel free. In this vision, residents can spend more of their hard-earned paychecks doing what they love, and businesses can reinvest in their products and services, rather than in energy bills.* (Building Energy Transition Implementation Task Force report p. 4)

- *To meet the statewide climate goals, a large portion of the statewide building stock will need to be updated.* (Building Energy Transition Implementation Task Force report p.9)

- ***…**given the scale of Maryland's GHG reduction goals, efficiency is a necessary but insufficient building decarbonization solution, as buildings will also need to stop burning fossil fuels like gas and oil onsite by switching to electric equipment to meet the same needs* (Building Energy Transition Implementation Task Force report p.10)

- *The transition to a clean energy economy requires millions of fuel-burning devices to be replaced with efficient, zero-emission alternatives.* (Maryland Climate Reduction Plan p. 12)

- *Billions of dollars in investments from the Inflation Reduction Act and other sources are already converging with current federal and state policies to transition to zero-emission vehicles, buildings, electricity sources, and more. New policies and investments will quicken the pace of decarbonization.* (Maryland Climate Reduction Plan p. 15)

- *Maryland's 2030 GGRA Plan called for the state to accelerate the transition of fossil fuel heating equipment in buildings to efficient electric equipment that can be powered by clean electricity.* (Maryland Climate Reduction Plan p.35)

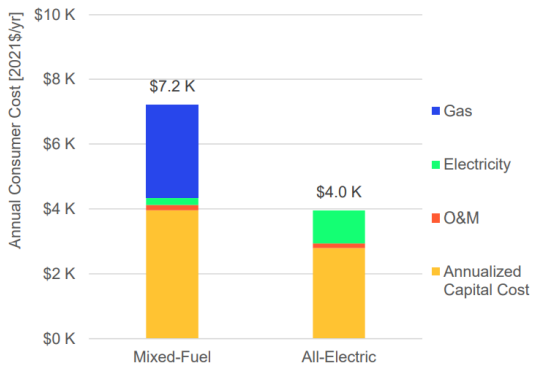
- *Maryland is among several states moving to adopt zero-emission appliance/heating equipment standards…Modern heat pumps are more than capable of meeting 100% of the heating demand of Maryland buildings, as evidenced by the fact that heat pumps are already commonly used in buildings statewide.*
  (Maryland Climate Reduction Plan p. 39)

Continuing to construct fossil-fueled buildings that will need costly retrofits within a decade or so poses an unnecessary burden on the state and residents. We will end up in an endless game of Whac-A-Mole if we insist on building 20th century buildings that need to be quickly retrofitted for the 21st century and beyond. With the Better Buildings Act, we can avoid this costly transition work by building smart from the start. Additionally, those new buildings that will eventually be covered under Building Energy Performance Standards (BEPS) regulations will be at an advantage if they begin as efficient electric buildings.

In most if not all new buildings, the cost of all-electric construction is cheaper, as are the costs to operate electric appliances. While electricity rates are expected to rise, "natural" gas rates are expected to skyrocket. Today, it costs the average resident $200 a year to just be connected to gas and that doesn't include the gas usage costs. This charge is expected to rise exponentially as more customers transition off gas leaving fewer customers to foot the bill for maintaining the gas infrastructure.

## All-electric design is expected to be the less expensive option

+ **All-electric new construction is cheaper than mixed-fuel new construction for single-family residential homes across all decarbonization scenarios due to both lower capital (with avoided gas connection) and operating costs**




*From Maryland Building Decarbonization Study page 65 (this was an report for Appendix A, Building Transition Plan for the 2021 Maryland Commission on Climate Change Report)*
*NOTE: O&M is operation and maintenance. Click to enlarge.*

On Dec. 29, 2023, the Public Service Commission published the report, An Assessment of Electrification Impacts on the Maryland Electric Grid, an electrification study required by the CSNA. This study demonstrates that the Maryland distribution grid is well positioned to manage the transition to electrification even during peak summer demand. So, unless we totally halt construction of all new buildings or build them without air conditioning, new buildings with energy efficiency requirements will actually reduce the electricity demand, compared with traditional new buildings.

The Better Buildings Act ensures we are moving in the right direction, preventing new sources of climate pollution while we work to undo the harms from old ways of planning and building. If we don't pass this legislation, buildings that install fossil fuel heat and hot water appliances in the next few years will still be emitting greenhouse gases long after the state is required to achieve net zero emissions.

We urge a **favorable report for SB0804**.

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

**SB0804_MDSierraClub_fav_27February2025.pdf**
Uploaded by: Mariah Shriner
Position: FAV

SIERRA CLUB
MARYLAND CHAPTER

P.O. Box 278
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**Committee:** **Education, Energy, and the Environment**

**Testimony on:** **SB 0804, Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation, and Electric– and Solar–Ready Standards (Better Buildings Act of 2025)**

**Position:** **Support**

**Hearing Date:** **February 27, 2025**

The Maryland Chapter of the Sierra Club strongly supports building electrification as a key pathway to meeting the State's climate goals and protecting the health of Marylanders and in turn strongly urges a favorable report on SB 804, the Better Buildings Act (BBA). The bill requires that:

- Newly constructed buildings and buildings with significant improvements meet all of their space heating, hot water, and laundry demands without burning fossil fuels.
- New buildings or significant improvements with over 20,000 square feet of continuous roof area generally be solar ready unless granted a waiver by local jurisdictions.
- New buildings under 35,000 square feet meet increasingly stringent energy efficiency standards.

Local jurisdictions could adopt additional regulations. The bill also provides waivers for special circumstances.

BBA Can Help Meet Maryland's Climate Goals and Protect Marylanders' Health

Fuel burned in buildings accounts for approximately 16% of greenhouse gas (GHG) emissions in Maryland. The electricity used in buildings accounts for an additional contribution to GHG pollution; however, this will decline over time as Maryland's energy production becomes increasingly non-emitting. As Maryland works to achieve its climate goals to reduce GHG emissions by 60% (from 2006 levels) by 2031 and reach net-zero by 2045, the BBA will play a crucial role in meeting those targets.

Building electrification of new homes, as mandated through the BBA, would have significant public health benefits. Currently close to half of homes in Maryland burn gas for appliances. Use of indoor gas appliances can increase levels of nitrous oxides, benzene, and particulates inside buildings through regular use or gas leaks, all of which generate health risk. Benzene is a known carcinogen. Inside our homes, gas appliances increase the likelihood that children will develop asthma; one study showed that children in homes with gas stoves have a 42% higher risk of asthma.

BBA is Aligned with Other Maryland Policies and Makes Economic Sense

Maryland has already demonstrated support for reducing GHG emissions in the buildings sector through building electrification. The Maryland Department of the Environment (MDE) has implemented Building Energy Performance Standards (BEPS), which require increasing

electrification and energy efficiency in buildings over 35,000 square feet. As called for in the December 2023 Climate Pollution Reduction Plan and Governor Moore's June 2024 Executive Order[1], MDE is developing Zero Emissions Heating Equipment Standards and Clean Heat Standards that will reduce emissions from residential and commercial buildings as space and water heating equipment is replaced at the end of its useful life. The legislature now has the opportunity with the BBA to establish an additional pathway to building electrification by eliminating fossil fuel consumption for heat and hot water in all new buildings and buildings with significant improvements[2].

Requiring building electrification for new construction makes economic sense. In the absence of BBA, some new buildings built between 2026 and 2045 would rely on fossil fuel infrastructure.[3] For Maryland to reach its statutorily-required climate goals, these buildings would, in all likelihood, then need to be retrofitted with new electric appliances before the fossil fuel burning appliances reach the end of their lives, at significant expense. The BBA would set Maryland on a path that avoids these retrofit expenses. Research shows that new buildings can be constructed without burning fossil fuels at roughly the same or lower cost (+0%-5%) as buildings that use fossil fuels.[4]

The BBA Act Would Facilitate Solar Deployment

SB 804 would also support Maryland in achieving its clean energy goals through the provisions which require that roofs on larger new buildings be solar ready.[5] This provision will spur additional solar deployment in line with Maryland's statutory target of achieving 14.5% of the state's electricity consumption from solar generation by 2030 and Governor Moore's commitment to achieving 100% clean energy by 2035.

The BBA's Efficiency Requirements Will Also Reduce Energy Use

Maryland must also pursue increasing energy *efficiency* for new buildings, in addition to electrification, to reach its climate goals. SB 804 would increase energy efficiency standards over time for new buildings built between 2027 and 2045. Buildings under 35,000 square feet permitted on or after March 1, 2027 would need to deliver increased energy efficiency, lowering ongoing energy costs to consumers and businesses. New residential buildings permitted on and after March 2033 would need to be close to three times as efficient as buildings permitted in

[1] 01.01.2024.19, Leadership by State Government: Implementing Maryland's Climate Pollution Reduction Plan
[2] Significant improvement is defined in the bill to mean "any repair, reconstruction, rehabilitation, alteration, addition, or other improvement of a building or structure, the cost of which equals or exceeds 50% of the replacement cost of the structure before the improvement or repair is started."
[3] New residences add 0.7% to total Maryland residences each year. Between 2026 and 2045, newly constructed homes would likely account for almost 11-15% of Maryland's homes.
[4] In a nine-city study, RMI found lower upfront costs for electrification in new construction when the upfront cost of gas line connection is included: https://rmi.org/insight/the-economics-of-electrifying-buildings-residential-new-construction/. The Maryland Building Decarbonization Study early results (July 2021) also found that all-electric new construction was cheaper than mixed-fuel construction for residential homes in Maryland. https://mde.maryland.gov/programs/air/ClimateChange/MCCC/Documents/MWG_Buildings%20Ad%20Hoc%20Group/Maryland%20Buildings%20Analysis%20Early%20Results%20E3%20Presentation%2007132021.pdf
[5] The solar-ready roof provisions would apply to larger new buildings with at least 20,000 feet of continuous roof space, a height of less than 20 stories, and appropriate roof angle to receive solar.

2026. These efficiency levels are economic and practical today and will reduce both the load on the grid and energy bills.

Additional Opportunities to Strengthen the Bill

As currently written, the BBA applies only to laundry, hot water, and space heating appliances. We would support an amendment to apply the BBA to all fossil fuel energy use in new buildings, including cooking equipment.

Conclusion

In summary, SB 804 will contribute to achieving Maryland's climate goals by:

- Reducing GHG emissions in new buildings;
- Ensuring that owners of new buildings would not face costly retrofit costs in the future to meet the state's climate goals;
- Facilitating the deployment of rooftop solar with a solar-ready standard for large new buildings;
- Increasing energy efficiency in new buildings under 35,000 square feet.

The Sierra Club Maryland strongly urges approval of this legislation.

Chris Stix
Clean Energy Legislative Team
StixChris@gmail.com

Josh Tulkin
Chapter Director
Josh.Tulkin@MDSierra.org

**SB 804 - CBF - FAV.pdf**
Uploaded by: Matt Stegman
Position: FAV

# CHESAPEAKE BAY FOUNDATION

*Environmental Protection and Restoration*
*Environmental Education*

**Senate Bill 804**

**Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation, and Electric- and Solar–Ready Standards (Better Buildings Act of 2025)**

| | | | |
|---|---|---|---|
| Date: | February 27, 2025 | Position: | **FAVORABLE** |
| To: | Education, Energy, and the Environment Committee | From: | Gussie Maguire, MD Staff Scientist |

Chesapeake Bay Foundation (CBF) **SUPPORTS** SB 804, which updates the Maryland Building Performance Standards to require electrification of utilities, improved energy conservation, and suitability for renewable energy in new and significantly improved buildings over 20,000 square feet.

In addition to contributing to climate change through the release of greenhouse gases, natural gas and other fossil fuels emit nitrogen oxides, which account for a significant proportion of nitrogen pollution in the Chesapeake Bay and its tributaries. Natural gas-fueled furnaces, water heaters, and dryers worsen both indoor and outdoor air quality; continuing to invest in natural gas infrastructure will increase both environmental and human health impacts. The bill's additional requirements for energy efficiency ensure that the net impact of electrification will not result in higher demand on fossil fuel-burning power generators.

Finally, by requiring qualifying buildings to be solar ready, the bill encourages solar siting on existing impervious surfaces. Placing solar installations on buildings reduces the potential for solar arrays to be built at the expense of agricultural or forested land and reduces transmission needs.

**CBF urges the Committee's FAVORABLE report on SB 804.**

For more information, please contact Matt Stegman, Maryland Staff Attorney, at mstegman@cbf.org.

**Testimony - SB 804 -Better Buildings Act of 2025 -**
Uploaded by: Phil Webster
Position: FAV

# Unitarian Universalist Legislative Ministry of Maryland

**Testimony in Support of SB 804 -**
**Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)**

| | |
|---|---|
| TO: | Chair Feldman and Members of the Education, Energy, and the Environment Committee |
| FROM: | Phil Webster, PhD, Lead Advocate on Climate Change Unitarian Universalist Legislative Ministry of Maryland. |
| DATE: | February 27, 2025 |

The Unitarian Universalist Legislative Ministry of Maryland (UULM-MD) strongly supports dramatic improvements in the construction and operation for new buildings in Maryland and urges approval and rapid implementation of **SB 804 - (Better Buildings Act of 2025).**

The UULM-MD is a faith-based advocacy organization based on Unitarian Universalist Values, including justice, equity, and interdependence. Working to mitigate, adapt to, and build resilience for climate change is central to our beliefs.

The Better Buildings Act does just what its name implies–it requires most new buildings to be *built smart from the start*, with better energy conservation and **no on-site fossil fuel combustion for space and water heating**. It will encourage the use of electric equipment and includes a provision of solar-readiness for buildings under 20 stories tall for future deployment of even more clean energy options.

**SB 804 -** implements a simple vision of how we want our public and private buildings to be –less expensive to operate AND much better for the climate crisis we face. It is a common-sense bill that ensures that new construction utilizes highly efficient, cost-effective electric appliances that use less energy, lower utility bills, and are less polluting.

The Climate Solutions Now Act of 2022 requires that the state be net-zero for emissions of Greenhouse Gases in 2045. Transitioning to electrical appliances for space and water heating for new buildings,will put the State on the path to meeting this critical requirement.

Studies have shown that the costs for construction of buildings with electrical appliances are comparable to fossil fuel buildings, while the operating cost can be substantially less. Today's heat pumps are three to four times more efficient than fossil fuel heating equipment, and remain two to three times more efficient even in winter weather.

According to a  report issued by The Maryland Public Service Commission, the grid can handle increased high rates of electrification in buildings, and transportation. The Better Buildings Act only affects new buildings, which is a small subsection of the entire building stock. If the grid can handle economy-wide electrification it can more than handle new building electrification, because it represents a small percent of the total building stock in the state.

Any building constructed today with fossil fuel appliances will emit Greenhouse Gases for as long as those appliances are functional, possibly for 20 years. Upgrading to electrical appliances at that time would be more expensive than just replacing the original equipment because of the cost of retrofitting of the electrical infrastructure.

**The Better Buildings Act** would:

- Put Maryland on the path to meeting Greenhouse Gas guidelines of the Climate Solutions Now.
- Cost about the same as fossil fuel based buildings.
- Be less expensive to operate.
- Be less costly to upgrade when the original heating appliances reach their end of life.

UULM-MD strongly supports the **Better Buildings Act** and urges a FAVORABLE Committee report.

*Phil Webster, PhD*
Lead Advocate, Climate Change UULM-MD

**Tesstimony in Support of SB0804.pdf**
Uploaded by: Ray Earnest
Position: FAV

Testimony in Support of SB0804

Better Buildings Act

House Environment and Transportation Committee, hearing 2/27/25
Submitted on 2/25/25

To All Committee Members,

My name is Ray Earnest. I live in Caroline County, and I urge a favorable report on SB0804.

The Better Buildings Act reduces energy costs and improves public health for Marylanders by requiring ***all newly constructed buildings*** **to meet their space and water heating needs without the use of fossil fuels.** This legislation would encourage the adoption of highly efficient electric equipment such as heat pumps. The bill also relies on the latest energy efficiency standards that discourage the use of expensive electric resistance heating, and includes a provision for solar-readiness for buildings under 20 stories to make sure buildings are built smart from the start.

By encouraging the installation of heat pumps and efficient electric appliances rather than furnaces, water heaters, and appliances powered by fossil fuels, this bill helps to reduce greenhouse gas emissions, decreases the pollution that contributes so heavily to many Marylanders asthma, and lowers the cost of constructing and maintaining new buildings.

I support this bill because I care deeply about the health of Maylanders as well as avoiding the devastating effects of climate change.

Thank you for your consideration, and I look to this committee to give SB0804 a favorable report.

Sincerely,
Ray Earnest
20375 Hog Island Rd
Preston, MD 21655
Rayearnest1@gmail.com

**Rev. Dell FAV Testimony for SB 804 (1).pdf**
Uploaded by: Rev. Dellyne Hinton
Position: FAV

SB804 - SUPPORT
Rev. Dellyne Hinton
Central Maryland Ecumenical Council

CENTRAL MARYLAND ECUMENICAL COUNCIL

SB804- Better Buildings Act
Education, Energy and the Environment Committee

February 27th, 2025

Chair Feldman, Vice Chair Kagan, and Members of the Education, Energy and the Environment Committee

I am Rev. Dellyne Hinton, Chair of Central Maryland Ecumenical Council and lead pastor of the North West Baltimore Cooperative Parish of the United Methodist Church.

I urge a favorable report on the Better Buildings Act – and no one paid me to say that.

I shouldn't have to assure you I'm speaking my own mind as a leader in my own community, but in the hearings on this bill, in this committee, I'm afraid it needs to be said!

Last year, a retired Ravens player flew here from Texas to host a reception for legislators and submit testimony against the Better Buildings Act, claiming he was doing so out of concern for "the struggles of the Black community" in Baltimore.

And then I read in the *Washington Post* last month that that man's organization and his testimony were all a front for the Consumer Energy Alliance, a consortium of oil companies and gas utilities. (I don't know if he's back this year. I came to make sure he did not try to speak for me. I've submitted the article from the *Post* with my testimony.)

I don't need anyone to speak on my behalf. And I certainly don't appreciate anyone taking fossil fuel money to say that gas-burning indoors is somehow beneficial to the Black communities I pastor in Baltimore.

I know burning gas in our buildings is dangerous from personal experience, because a few years ago, the furnace went up in our home. We had a repair person to correct the situation during normal business hours. This was during the Thanksgiving season. At a little after 10 pm, my son and I heard a loud boom. And our home shook. We both jumped from our beds and looked for the source. It took us a few minutes to determine that it was our furnace that had exploded. We could smell gas coming up from our basement. We gathered our important papers and items and went to our cars to call for help.

We were lucky. The coupling was not attached appropriately. We were not able to return to our home for several hours. We were lucky our home was not destroyed. We were lucky. We were not physically harmed. We were harmed in our sense of security, and emotional stability, lack of sleep, and increase in our anxiety.

But after the terror of being awakened from sleep in our beds and driven out of our house by a gas burning appliance exploding in my own home, no one – no one could pay me any amount of money to perpetuate gas-burning in our buildings when there are so many better alternatives.

I am only one of the many real Marylanders of all faiths and many backgrounds who have come to understand that burning gas indoors is harmful to us, to our climate, and to all that has breath. Converting existing

infrastructure like the furnace in my house is one thing; but surely we can all agree that there's no good reason to build a gas-burning building in Maryland ever again. That's why grassroots coalitions including churches like mine helped pass an all-electric building code bill already in Montgomery County, and why similar legislation is in process in Howard County and going to be introduced soon in Baltimore City.

Today, we can build better buildings than we did in the past: all-electric heat pumps and heat pump water heaters are more efficient than their gas-burning predecessors, healthier to breathe around, don't require leaking pipes or risk explosions, and protect our damaged climate. The only folks they're not better for is those who wish to keep selling us fuel to burn; but from now on I hope you'll know when they say that, they are speaking only for themselves.

Now that we know better, state law should require that we do better. I urge a favorable report on SB804.

*Democracy Dies in Darkness*

# This group says natural gas bans hurt minorities. It has gas industry ties.

The Energy Poverty Awareness Center, which fought climate legislation in Maryland, has ties to a group that is partly funded by oil and gas companies.

January 13, 2025

11 min 191

By Maxine Joselow

When Maryland state lawmakers proposed a major climate bill last year, they faced opposition from a surprising figure: ex-NFL player Gary Baxter.

The former Baltimore Ravens cornerback argued that the measure, which would have banned the use of natural gas furnaces and water heaters in new buildings statewide, would raise energy costs for Black households. “Affordable energy is vital for communities of color,” Baxter wrote in testimony on behalf of the Energy Poverty Awareness Center (EnPAC), an advocacy group he leads.

What Baxter didn’t mention is that his group has ties to the natural gas industry, according to documents reviewed by The Washington Post. Consumer Energy Alliance, a Houston-based organization that is partly funded by gas utilities and other fossil fuel companies, helped launch EnPAC and shape its initial agenda.

Consumer Energy Alliance has also supported the National Hispanic Energy Council, which has asserted that gas projects help lower energy bills for Hispanic households, according to the documents. The materials were obtained via a public records request by the Energy and Policy Institute, an investigative research organization that says it works “to expose attacks on renewable energy and counter misinformation by fossil fuel and utility interests.”

The findings show how the fossil fuel industry has relied on advocacy groups to persuade policymakers nationwide that its products benefit communities of color. Critics say these efforts come even though Black, Hispanic and Asian Americans are disproportionately exposed to deadly air pollution caused by the burning of fossil fuels, which also is driving climate change.

“The documents reveal how oil, gas and utility companies — through their membership in Consumer Energy Alliance — cynically claim to represent the interests of structurally disadvantaged communities,” said Itai Vardi, a research and communications manager at the Energy and Policy Institute. “But in reality they use these front groups as a way to obscure the harms this industry causes these communities through increasing pollution and exacerbating climate change, which hits disadvantaged people the hardest.”

Asked for comment, CEA spokesman Bryson Hull confirmed that his group helped launch EnPAC but said it was a “normal practice.”

“CEA was introduced to EnPAC representatives in 2022, and, recognizing the need for energy policy discussions in Black communities, offered to assist getting the organization off the ground,” Hull said in an email. “CEA did provide sponsorship support for a reception in Annapolis in early 2024. CEA and EnPAC have not worked together in almost eight months.”

He added: “This is literally a dog bites man story, and a blatant attempt to generate a headline about something that happens every day in advocacy.”

Democratic-leaning states have advanced more aggressive climate policies for years, including recent efforts to cut off gas supplies to new buildings as a way to speed the transition to clean electricity. The gas industry has responded by hiring Democrats and other advocates who are better positioned to appeal to liberal voters. Skirmishes on the state level will play an outsize role in shaping the nation’s future energy trajectory once President-elect Donald Trump is back in the White House, where he has pledged to reverse many of President Joe Biden’s policies aimed at shifting the country away from oil, gas and coal.

The recent fight in Maryland exemplifies the push and pull over how quickly the transition to clean energy should happen.

After a knee injury ended his six-season NFL career in 2008, Baxter returned to his hometown of Tyler, Texas, where he owned several fast-food restaurants, and then founded EnPAC in February 2022. But the group didn’t officially launch until January 2024, when CEA began publicizing its efforts, the documents show.

“FYI … the African American org officially launched last week. More to come. Thoughts/Ideas welcome,” David Holt, CEA’s president, wrote in an email that month to CEA’s board of directors.

CEA helped arrange EnPAC’s early focus on Maryland last January, organizing a reception with Baxter at an Annapolis hotel and inviting key state lawmakers, according to an internal memo.

“Gary spoke at length with Delegate Regina Boyce at the reception,” the memo says, referring to the vice chair of the House Environment and Transportation Committee. “She’s the most important House Member for our cause.”

CEA also sent a press release about EnPAC’s launch “to local media and to trade media inside The Beltway,” the memo says. The release listed CEA’s director of media and public relations as the press contact.

A few months later, CEA held a board meeting at a restaurant in downtown Washington where the agenda items included "NHEC & EnPAC Reports — Expanding outreach to Minorities," according to the documents.

The National Hispanic Energy Council has disclosed its ties to CEA, saying on its website that it "will work in coordination with Consumer Energy Alliance, a leading energy and environmental advocate." EnPAC doesn't mention CEA on its website or in other public materials.

Asked for comment, Baxter said in an email that while he welcomes working with fossil fuel firms, they have not dictated his group's agenda.

"EnPAC is a standalone independent organization founded by me and is NOT a front for any fossil fuel companies," Baxter said. "With that being said, EnPAC looks forward to working with more fossil fuel companies and any green energy companies that can show reliable and affordable energy to the American people, especially the minority communities."

CEA does not publicize its funding sources. But the majority of its dues-paying members are oil companies, gas utilities and other firms that profit from fossil fuels, according to its public membership list. They include oil giant ExxonMobil and Maryland gas provider Chesapeake Utilities Corp.

CEA also shares most of its staff and revenue with the Houston-based public relations firm HBW Resources, whose clients include oil and gas interests, according to tax filings and lobbying disclosure forms. In addition to leading CEA, Holt serves as managing partner of HBW Resources.

"Consumer Energy Alliance is exactly what it says it is — an alliance that advocates for reliable, affordable and cleaner policies, using all forms of energy," Holt said in an email. "If we can provide our energy policy expertise to other groups, we will jump at every opportunity to broaden the conversation we're having."

EnPAC's connection to CEA isn't its only tie to the fossil fuel industry. Airika Brunson, vice president of EnPAC, is an official at American Fuel and Petrochemical Manufacturers, a trade group for oil refiners. Lance Shepherd, a board member of EnPAC, works at pipeline company Enable Midstream Partners.

The connection between energy companies and advocacy groups for minority communities dates back nearly two decades. From 2005 to 2015, Exxon contributed more than $800,000 to the National Black Chamber of Commerce, which waged a battle against a landmark 2009 climate bill and President Barack Obama's Clean Power Plan on the grounds that they would harm minorities by slowing job growth.

More recently, a group called Western States and Tribal Nations has argued that fossil fuel projects in Baja California would help Indigenous communities there. The group is run by HBW Resources, and its main financial backers are county governments and fossil fuel companies, including a gas utility building a facility in Baja.

## Fight over the future of gas

Climate activists nationwide have pushed to ban fossil fuel use in the buildings sector, which accounts for roughly a third of total U.S. greenhouse gas emissions.

In Maryland, which has set a goal of net-zero emissions by 2045, the Better Buildings Act ultimately did not pass either chamber of the legislature last year. If enacted, it would have required all new buildings and major renovations in the state to meet their heating needs without the use of fossil fuels.

In practice, the bill would have prevented new homes from being built with gas furnaces and gas water heaters. These homes would have needed to use greener alternatives such as electric heat pumps and electric water heaters.

The measure would not have affected the state's nearly 2.6 million existing housing units. It also would not have restricted other appliances such as gas stoves, which have recently emerged as a flash point in the nation's culture wars.

In his testimony sent to state lawmakers, however, Baxter wrote that the bill could force Black households in Baltimore to spend tens of thousands of dollars on a host of new green technologies.

"While I am not from Baltimore, I spent a significant number of formative years in the city and have paid witness to the struggles of the Black community," Baxter wrote. "… Requiring the replacement of just four major gas appliances like water heaters, furnaces, stoves, and dryers could top out at more than $26,884 for a Baltimore household."

Baxter added that Black families spend a significantly larger portion of their income on energy costs than White families do. The bill, he concluded, would raise costs for "communities that can least afford it."

Experts and advocates who spoke to The Post said Baxter's claims were misleading because the bill wouldn't affect existing homes or appliances such as stoves. They also noted that in most cases, it is cheaper to heat a home in Maryland with heat pumps than with gas furnaces. That is because heat pumps are much more efficient than gas furnaces, producing about three times as much energy as they consume. (Baxter didn't respond to follow-up requests for comment on the experts' statements.)

"If lower-income households in Maryland are able to switch to heat pump technology, they will benefit from lower energy bills based on my simulations," said Yueming Qiu, a professor at the University of Maryland who studies consumer adoption of climate-friendly technologies.

At the same time, experts said, Baxter's testimony touched on some real trade-offs inherent in the nation's energy transition. Research does show that African Americans bear a higher energy burden because they are more likely to be lower-income and to live in older, less energy-efficient homes.

Studies also show that minority households are less likely to adopt heat pumps and other green technologies, in part because of the higher up-front costs. But these costs can be offset by the generous rebates offered by the federal government and many states, including Maryland, Qiu said.

Richard Painter, who served as the chief White House ethics lawyer under President George W. Bush, called it "ethically problematic" that Baxter didn't mention his ties to the gas industry in his testimony. But he said Baxter's conduct probably didn't violate Maryland's ethics law, which doesn't mandate such disclosures.

Chesapeake Utilities also submitted testimony opposing the legislation and raising similar cost concerns.

"In essence, Chesapeake received indirect lobbying services from CEA — in this case via Gary Baxter's EnPAC — in exchange for its membership in CEA," Vardi said. "This is what makes CEA so misleading and a clear front for the fossil fuel industry: It does lobbying that serves its members without having to register as a lobbyist."

A Chesapeake Utilities spokesman did not address questions about CEA when asked, saying that while the utility supports the "journey to a lower-carbon future," the bill would have imposed "extraordinary costs" on consumers and businesses.

In 2023, New York became the first state to pass a law banning all gas use in most new buildings. California also has updated its building code to encourage electrification. Maryland Del. Terri L. Hill (D-Howard), who supported the Better Buildings Act, said that given the climate policy's progress in other states, "I expect that it will come back" in Maryland.

**What readers are saying**

The comments reflect skepticism towards advocacy groups like the Energy Poverty Awareness Center, suggesting they may serve as fronts for fossil fuel interests to undermine renewable energy initiatives. Some commenters argue that banning natural gas could disproportionately... Show more

This summary is AI-generated. AI can make mistakes and this summary is not a replacement for reading the comments.

# Testimony in support of SB0804 - Maryland Building

Uploaded by: Richard KAP Kaplowitz

Position: FAV

SB#0804_Richard Kaplowitz_FAVORABLE

02/27/2025
Richard Keith Kaplowitz
Frederick, MD 21703

**TESTIMONY ON SB#0804 -**

**FAVORABLE**

**Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)**

**TO**: Chair Feldman, Vice Chair Kagan, and members of the Education, Energy and the Enviornment Committee

**FROM**: Richard Keith Kaplowitz

My name is Richard Keith Kaplowitz. I am a resident of District 3, Frederick County. I am submitting this testimony in support of SB#0804, Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)

The American Lung Association has studied extensively the impact of burning fossil fuels within indoor spaces on health. [1]

> Two thirds of U.S. households burn fuel in their homes. These households burn methane (commonly referred to as "natural gas"), wood, propane, heating oil or other fuel to heat their homes and water, dry their clothes and cook their food. Burning fuel produces emissions that are harmful to human health and the environment. Some types of appliances, including cook stoves, release their emissions directly into the home, where they are inhaled by residents. Other appliances, such as furnaces and water heaters, when installed and operated as designed, vent most combustion by-products to the outside, where they contribute to air pollution and climate change.
>
> According to EPA, indoor levels of pollutants may be two to five times — and sometimes more than 100 times — higher than outdoor levels. Since most people spend about 90 percent of their time indoors, policies and practices that reduce the emission of combustion pollutants in homes are an important step forward in protecting public health.

My Jewish tradition summarizes a reason we need to protect our bodies from this pollution. [2]

> It calls it *sh'mirat haguf* – literally, guarding the body. In the book of Deuteronomy, we find the verse, "Guard yourself and guard your soul very carefully" (Deut. 4:9). Biblical commentators have understood this passage to be the religious imperative for taking care of both body and soul. As the Jewish philosopher Philo of Alexandria put it, "The body is the soul's house. Therefore, shouldn't we take care of our house so that it

[1] https://www.lung.org/getmedia/da394c1a-200e-4c89-9947-7ecb1a26571a/The-Health-Impact-of-Combustion-in-Homes.pdf

[2] https://reformjudaism.org/jewish-perspectives-health-wellness/what-jewish-tradition-says-about-health-and-wellness#:~:text=In%20the%20book%20of%20Deuteronomy,body%20is%20the%20soul's%20house.

doesn't fall into ruin?"

The Journal Solar Reviews has noted the *Advantages and Disadvantages of Fossil Fuels: Do the Cons Outweigh the Pros?* [3]

- Fossil fuels have been powering the world for decades, making them cheap and reliable since the infrastructure is already in place for their continued use.
- Some of the disadvantages of fossil fuels include that they contribute to climate change, they are a non-renewable resource, they are unsustainable, they cause land degradation, and are accident-prone.
- Renewable energy technologies provide an alternative to fossil fuels that is safer, healthier, and better for the planet

This bill makes the moral statement that Maryland understands the problems with fossil fuel use and will take steps to mitigate the problems associated with it. It will accomplish that goal by requiring the Maryland Department of Labor to adopt, by October 1, 2025, and as part of the Maryland Building Performance Standards, energy conservation requirements, an electric- and solar-ready standard for certain buildings, and a requirement that new buildings and significant improvements meet all laundry, water, and space heating demands of the building without the use of fossil fuels.

**I respectfully urge this committee to return a favorable report on SB#0804.**



[3] https://www.solarreviews.com/blog/fossil-fuels-pros-and-cons

**Takoma Park 2025 - SB 804 FAV - BEPs - Senate.pdf**
Uploaded by: Talisha Searcy
Position: FAV

# CITY TAKOMA OF PARK MARYLAND

**<u>Support Senate Bill 804</u> – Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation, and Electric– and Solar–Ready Standards (Better Buildings Act of 2024)**
**Senate Education, Energy, and the Environment Committee**
**February 27, 2025**

The City of Takoma Park supports and urges favorable consideration of this bill, which would amend the Maryland Building Performance Standards to require that new buildings and buildings with significant improvements meet: 1) all laundry, water, and space heating demands without use of fossil fuels, with an electric-ready requirement for buildings that get waivers; 2) building energy conservation requirements; and 3) a solar–ready standard for suitable buildings. The bill does not limit the ability of a local government to adopt stronger requirements.

The City of Takoma Park is a densely developed, residential municipality of almost 18,000 residents in Montgomery County. About half of our residents are homeowners and half are renters. Residents have a wide range of incomes, backgrounds and ethnicities. However, a significant number of residents are energy cost-burdened. The City does not conduct its own permitting and relies on State and Montgomery County building codes and permitting for its buildings. This bill will have a significant impact on our community as the City anticipates both new mixed-use construction and, as a largely built-out community, significant renovation of larger multifamily buildings in the future.

Like communities across Maryland, Takoma Park is keenly aware that we must move ahead rapidly to meet our state, county, and local climate goals. Throughout Maryland, we have seen our climate dramatically and rapidly change, with devastating local consequences. Buildings are one of the largest sources of greenhouse gas (GHG) emissions statewide. New and renovated buildings provide an opportunity to build in measures to achieve our collective climate goals.

Takoma Park has been a leader among Maryland communities in responding to the challenges of climate change and in reducing GHG emissions through our local policies and actions. But we cannot do this alone. We need strong state leadership and action to support us and other communities across the state. This bill will help us meet our city climate, as well as housing and equity goals and priorities.

In sum, the City of Takoma Park supports the intent of Senate Bill 804 and urges a favorable committee vote.

**SB804_FAV_MASCIOLI.pdf**
Uploaded by: William Mascioli
Position: FAV

**SB804 - SUPPORT**

William Mascioli
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# SB 804 – Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)

Meeting of Education, Energy, and the Environment Committee
February 27, 2025

Dear Chair Feldman, Vice Chair Kagan, and Members of the

I urge a favorable report on SB 804, the Better Buildings Act. Buildings heated using natural gas are a major source of greenhouse gas emissions and contribute to public health problems. According to a well-documented recent article in *The Guardian*[1]:

> Fossil fuel use in buildings accounts for nearly a third of all US planet-heating pollution, and top UN climate scientists say building electrification must be the "dominant strategy" for decarbonization. Gas usage in the home has also been linked to childhood asthma and other health issues.

This bill would, without significant cost to the state, address these dire concerns in a simple, direct manner. It would convert our building stock from climate liabilities that get their space- and water- heating from unhealthy, methane-emitting gas lines, to climate assets that use electricity that will be increasingly carbon-free as we achieve the goals of the Climate Solutions Now Act of 2022.

Global warming is an immense problem getting worse with every passing year of inaction. The idea that we are continually missing opportunities to do more to maintain a livable planet for our children and grandchildren causes me profound distress.

[1] "US fossil fuel industry campaigns to kill policies that ban gas in new buildings," February 24, 2025, www.the guardian.com.

By simply requiring that we require new buildings to meet their space and water heating needs without the use of fossil fuels, the Better Buildings Act will significantly reduce the amount of greenhouse gas pollution with its attendant health problems. By moving from fossil-fuel burning furnaces to more efficient electric heat pumps, it will *reduce* energy costs. Also, it will avoid wasteful expenditures on new gas furnaces and pipeline that will in coming years become stranded assets as Maryland moves toward net-zero carbon emissions.

Efforts by the fossil fuel industry to defeat bills like this place profits over the health and well-being of citizens and of the planet as a whole. Here, with the Better Buildings Act, we have a win-win opportunity to take meaningful action in Maryland to place people and the planet first. Please don't pass it by: let's take advantage of these benefits by passing the Better Buildings Act.

**2025 SB0804 Testimony Against 2025-02-27.pdf**
Uploaded by: Alan Lang
Position: UNF

# Testimony Against SB0804

Honorable Senators

Please enter an unfavorable report against SB0804.

I am against

- Requiring the Maryland Department of Labor to adopt, by October 1, 2025, and as part of the Maryland Building Performance Standards, energy conservation requirements, an electric- and solar-ready standard for certain buildings, and
- requiring that new buildings and significant improvements meet all laundry, water, and space heating demands of the building without the use of fossil fuels.

This bill is a direct assault on inexpensive sources of energy. It is nothing more than a regressive tax on the poor, middle class, and small businesses to support so-called man-made climate change.

It is based on a non-science, false premise that CO2 is a pollutant.

- CO2 is a trace gas (~0.04 percent) in our atmosphere that is essential to life on Earth.
- No CO2, NO plants, No animals, No Humans!
- All human activity on Earth produces 3 percent of the 0.04 percent CO2 in our atmosphere (That is only 12/1,000,000 = 12 ppm.)
- Plants require a minimum of 150 ppm of CO2 to survive.

What is the minimum level of CO2 for plant growth?

> Average outdoor CO2 levels are normally around 400 ppm, which achieves normal outdoor plant growth. Greenhouse and indoor plants grow better with a CO2 concentration of at least two to three times that of outdoor levels (800 to 1200 ppm).

What is the best CO2 level for flowering plants?

> Flowering stage: During the flowering stage, when the plants are producing buds, the recommended CO2 level is between 1200 and 1500 ppm. Higher CO2 levels at this stage can help increase yields and improve the quality of the buds.

Making plans to reduce CO2 in the atmosphere is an anti-life, non-science fraud that will facilitate the increase of poverty and starvation!

Man-made CO2 does not change climate.

> A quote from Professor John Raymond Christy, “Suppose the United States closed everything and ceased to exist. No people, no cars, no industry, and no utilities. Current climate models tell us that as the result of this scenario in 50 years time there might be a few hundredths of one degree change in temperature! An amount well within the amount that the global temperature bounces around from one month to the next. The effect would be so small as to be unattributable to regulation.”

# Testimony Against SB0804

Professor Christy is a climate scientist involved in satellite remote sensing of global climate and global climate change. He is best known, jointly with meteorologist and Senior Scientist for Climate Studies at NASA's Marshall Space Flight Center Dr. Roy Spencer, for the first successful development of a satellite temperature record.

Dr. John R. Christy is the Distinguished Professor of Atmospheric Science and Director of the Earth System Science Center at the University of Alabama in Huntsville where he began studying global climate issues in 1987.

The bottom line is solar activity and planetary motion changes climate. That is why the Earth experiences cyclical ice ages and warming periods. CO2 levels are a lagging indicator of solar activity.

Additionally, forcing Marylanders to use only electricity as opposed to other sources of less expensive energy is similar to the failed form of state soviet central planning. This is the very definition of tyranny.

It is also false to assert that electricity is more efficient and preferable to other sources of energy.

The Fallacies Of Electric Obsession Vs. The Reality That Gas Appliances Are More Energy Efficient.

Which dryer is more energy efficient?

> Gas dryers don't use electricity for their heating components, and they dry clothes the fastest, so they're more energy efficient than electric dryers. In most areas, natural gas and propane are less expensive than electricity, so it costs approximately half as much to dry a load in a gas dryer versus an electric one.
>
> Gas dryers typically cost 15 to 25 cents per load to dry, whereas it may cost 30 to 40 cents per load in an electric dryer. While you will pay more initially for a gas dryer, the energy savings over time will often make up the difference.

Winner: Gas dryer

Which water heater is more energy efficient?

> The amount of gas a water heater uses depends on several factors including the type of water heater, its size, its efficiency, and a household's hot water usage.
>
> Generally, gas water heaters are known for their efficiency and ability to provide a quick and continuous supply of hot water, making them a popular choice for many households. On average, a gas water heater costs about $30 per month and an electric version costs approximately $42 per month to operate.

Winner: Gas Water heater

# Testimony Against SB0804

The bottom line is that these financially harmful and draconian measures are unnecessary. They are not based on any legitimate scientific rational. This bill only serves to bring misery and financial hardship for the People of Maryland.

This useless authoritarian heavy-hand legislation must not move forward.

Please enter an unfavorable report against SB0804.

Alan Lang
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Legislative District 30B
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February 27, 2025

**FINAL_API_md_sb_804_2-25.pdf**
Uploaded by: Bernie Marczyk
Position: UNF

American Petroleum Institute
Northeast Region

February 27, 2025

Education, Energy and the Environment Committee
2 West Miller Senate Office Building
Annapolis, Maryland 21401

**IN RE:** *SB 804 "Maryland Building Performance Standards – Fossil Fuel Use … (Better Buildings Act of 2025)"*

Dear Chair Feldman, Vice Chair Kagan, and Members of the Committee:

***Introduction***

The American Petroleum Institute (API)[1] opposes a ban on the use of fossil fuels in new building construction and encourages the legislature to preserve consumer choice with respect to heating options. The comments that follow are specific to the bill's requirement that "on or before October 1, 2025 … the Department shall adopt … a requirement that new buildings and significant improvements meet all laundry, water, and space heating demands of the building without the use of fossil fuels." Policymakers should appreciate the value natural gas has demonstrated in reducing emissions as well as the pivotal role this fuel can play in helping to ensure a diverse and reliable fuel mix while facilitating the state's energy transition. Legislative and regulatory efforts to ban natural gas use are premature and not prudent. While API understands the desire to act, effective and equitable environmental policy must be flexible and technology neutral, allowing residents to choose the solution which works best for them.

***Consumers Should Have Right to Choose***

A prudent public policy provides consumers with options. Competition is imperative to protect consumers while driving innovation, ingenuity, and progress. Policymakers should not pick winners and losers but should allow resources and technologies to compete. Free market policies provide the consumer with options to select what best fits their unique requirements. An all-electrification requirement, as contemplated in SB 804, would remove natural gas from the heating markets, stripping the consumer of the right to select the heating fuel that best suits their needs. A ban on natural gas represents the worst type of policy because it effectively affords consumers only one option – electricity. The state should not develop a policy which allows for just one option and instead should embrace a diverse portfolio of resources, fuels, and technologies.

***The Role of Natural Gas in Balancing the Grid and Reducing Emissions***

A move to all-electric heating will leave Maryland residents at the mercy of a power grid that is increasingly utilizing intermittent resources. The state should strive for a diversified portfolio of energy resources, and lawmakers should thoroughly assess the grid impacts that could result from comprehensive economy-wide electrification efforts.

[1] The American Petroleum Institute represents all segments of America's natural gas and oil industry, which supports more than 11 million U.S. jobs. Our nearly 600 members produce, process, and distribute the majority of the nation's energy. API members participate in API Energy Excellence, through which they commit to a systematic approach to safeguard our employees, environment, and the communities in which they operate. Formed in 1919 as a standards-setting organization, API has developed more than 700 standards to enhance operational and environmental safety, efficiency, and sustainability.

Broad electrification could negatively impact the power grid. Policymakers should fully and carefully consider the grid impacts that could result from the changing magnitude and pattern of load associated with electrification. In recent years the state has forwarded policies and incentives to advance electrification in the transportation and building sectors by encouraging electric vehicles as well as home appliance and heating conversions. These policies can increase the demand for electricity significantly with no corresponding assurances that there will be sufficient resources in place to meet this incremental demand. This means that the state may be forced to rely on the use of older and less efficient power plants and import electricity from other regional power systems that may also utilize less efficient power plants.

Building new and efficient gas-fired power plants can provide a pivotal solution to challenges created by plant retirements and growing demand for electricity. PJM specifically cited electricity demand growth from electrification policies as a key trend that could increase reliability risks in the coming years, and noted that "if more natural gas capacity achieved commercial operation, it could help avoid reliability issues."[2] Additionally, PJM has recently negotiated a reliability must run contract and requested that certain fossil fuel "generating units in Maryland" delay retirements to help maintain bulk power system reliability and "mitigate reliability impacts."[3] API was pleased to see legislative leaders as recently as a couple of weeks ago, identify a role for natural gas in the coming years.[4]

Additionally, moving to all-electric heating requirements without any new baseload power plants could result in more emissions rather than less and could exacerbate capacity market shortfalls.[5] It would be prudent for the state to encourage the construction of new highly efficient gas-fired power plants as these facilities would reduce the use (and likely hasten the retirement) of older, higher-emitting and more expensive power plants. The dispatchability and flexibility of natural gas-fired power plants allow them to complement the sometimes-variable output of wind and solar facilities. The state should not pass any bill that stigmatizes or bans the use of natural gas. Rather, policymakers should encourage the use of natural gas to facilitate the integration of renewables.[6] Additionally, natural gas has long been valuable in reducing emissions from the power sector and helping to ensure a reliable system while providing reserve and regulation support.[7]

[2] *See* https://www.pjm.com/-/media/library/reports-notices/special-reports/2023/energy-transition-in-pjm-resource-retirements-replacements-and-risks.ashx.

[3] See https://insidelines.pjm.com/pjm-working-to-mitigate-reliability-impacts-of-retiring-wagner-units/.

[4] *See* https://marylandmatters.org/2025/02/03/leaders-bills-seek-to-transform-maryland-energy-landscape-but-questions-remain/ which notes "it's clear now that the leaders' legislative package will be the focal point of the energy policy debate in the weeks ahead. The three bills had not been formally introduced … so the full details are not known. The package will consist of a bill from Jones and Senate President Bill Ferguson (D-Baltimore City) that would direct the Maryland Public Service Commission, the state's utility regulator, to set up a procurement process to attract a new power plant development somewhere in the state. That plant would most likely be fueled by natural gas."

[5] As a point of reference, technological improvements over the past decade have reduced the carbon emission rate of new gas plants by 12 percent, which means that over the course of a year, a typical baseload gas plant built in 2020 emits 170,000 tons less carbon than one built in 2009.

[6] Natural gas combusted on-site is currently cleaner per unit of energy than electricity from the grid because of the energy losses occurring during the generation, transmission, and distribution of electricity. *See* City of New York Mayor's Office of Sustainability, *One City Built to Last: Transforming New York City Buildings for a Low-Carbon Future*, 34 (2016).

[7] The electric generation sector has significantly decreased greenhouse gas emissions. Emission reductions in this sector are greater than any other sector of the economy. Using data from the U.S. Energy Information Administration, API estimates that carbon emissions from New York's power generation sector have plummeted 56 percent since 2000. Most of this decline can be attributed to the switch from coal and oil to natural gas. *See* also The North American Electric Reliability Corporation, the standard bearer for reliability of the continent's bulk power systems, concluded that flexible, fast-ramping natural gas generators will be needed to maintain reliability as intermittent renewable resources become more prevalent.

***A Ban Inappropriately Closes Door on Prospect of Renewable Natural Gas and Emerging Technologies***

API and its members are committed to delivering solutions that reduce the risks of climate change while meeting society's growing energy and electricity needs. The industry is investing in the development of cleaner fuels including renewable natural gas and hydrogen. A fossil-fuel free building requirement creates a disincentive for investment in these promising technologies.

***Unintended Consequences***

Legislators should also recognize that moving the state to electric heat and heat pumps can have the unintended consequence of incentivizing customers to purchase and use backup generators.. The state must first understand and appreciate the potential economic and environmental consequences of additional backup generators before pursuing a future of only electric heat in new construction.

***Cost***

Good public policy considers cost impacts on consumers, especially those in overburdened communities. All-electric legislation will likely increase costs. According to research conducted for the National Association of Home Builders, all-electric homes cost more upfront in comparison to gas homes.[8] Specifically, for new construction the estimated electrification costs for an electric reference house in Baltimore compared to a baseline gas reference house ranges from just under $4,000 to over $14,000.[9]

***Conclusion***

For the reasons articulated above, API respectfully ***opposes SB 804***, which removes consumer choice and effectively bans the use of all fossil fuels in new building construction.

Thank you for considering these comments, and please feel free to follow up should you have any questions.

Respectfully submitted,

Michael S. Giaimo
Northeast Region Director
Phone: 603.777.0467
Email: giaimom@api.org.

[8] *See* https://www.nahb.org/-/media/NAHB/nahb-community/docs/committees/construction-codes-and-standards-committee/home-innovation-electrification-report-2021.pdf.

[9] *Ibid.* These numbers reflect the ranges associated with the low- and high-reference cases contained in this study.

**SB804_WGL_Todd_UNF.pdf**
Uploaded by: Brandon Todd
Position: UNF

1000 Maine Avenue, SW | Suite 700 | Washington, DC 20024 | www.washingtongas.com

**COMMITTEE:** EDUCATION, ENERGY & THE ENVIRONMENT

**TESTIMONY ON: SB** 804 MARYLAND BUILDING PERFORMANCE STANDARDS – FOSSIL FUEL USE, ENERGY CONSERVATION, AND ELECTRIC– AND SOLAR–READY STANDARDS (BETTER BUILDINGS ACT OF 2025)

**POSITION: OPPOSE**

**HEARING DATE:** FEBRUARY 27, AT 1:00PM

WASHINGTON GAS RESPECTFULLY SUBMITS THIS STATEMENT IN **OPPOSITION** TO **SENATE BILL 804 – MARYLAND BUILDING PERFORMANCE STANDARDS – FOSSIL FUEL USE, ENERGY CONSERVATION, AND ELECTRIC– AND SOLAR–READY STANDARDS (BETTER BUILDINGS ACT OF 2025)**

The Company supports Maryland's climate goals and believes that Maryland's gas infrastructure can help the State meet those goals while providing a wide range of benefits to Maryland customers. Senate Bill 804 ("SB 804") would require, starting October 1st, 2025, all new buildings or buildings undergoing significant improvements to meet all water and space heating demand without fossil fuels. SB 804 also proposes to implement strict site energy use intensity ("EUI") requirements and offers no rationale for how the targets were determined. These requirements mandate that all of Maryland's buildings electrify regardless of any impacts on reliability, affordability, and energy choice while disregarding practical, low cost decarbonization alternatives. The State should consider technology-agnostic policies that can help achieve its greenhouse gas ("GHG") emissions reduction goals while maintaining affordable, reliable, safe, and secure energy for Marylanders. SB 804 is not an appropriate, realistic, or efficient way to advance emissions reductions for customers in Maryland. It will require substantial investments by Maryland's residents and businesses, increase utility bills, and reduce the diversity, reliability, and resilience of Maryland's supply of energy.

**Affordability**

By forcing home and building owners to electrify, SB 804 will increase Marylanders' energy bills. The United States Energy Information Administration's (EIA) Winter Fuels Outlook for 2023-2024 estimates that it will cost, on average, 76% more to heat homes this winter using electricity compared to natural gas (U.S. Average: $1,063 vs $601). In the Northeast, which includes Maryland, it is estimated to cost 92% more this winter (Northeast Average: $1,465 vs. $761). Additionally, widespread electrification will increase electric rates overall due to the increased need for infrastructure investments that are needed to support high load growth. A recent New York Times article stated that "power bills have been rising nationwide, and in Baltimore, electricity rates have increased almost 30 percent over the last decade, according to data from the Bureau of Labor Statistics."

Additional benefits and cost savings resulting from the reliability of the State's natural gas infrastructure would be lost through widespread electrification. Less than 1% of customers are expected to experience a natural gas outage in any given year, while electric distribution systems see an average of one (1) outage

per year per customer. The high reliability of the natural gas system provides significant cost savings on peak demand days. For example, Oregon utility Northwest Natural Gas conducted an analysis of its winter peak demand days and found that the amount of new renewables and storage required to replace the use of natural gas on such days (in terms of exajoules of energy) would cost approximately $20 billion, not including any grid upgrades required to reliably integrate and deliver energy from these renewables.5 The site EUI targets included in SB 804 are stricter than the targets adopted in Maryland's Building Energy Performance Standards ("BEPS") and would accrue significant costs to all buildings in the State to achieve compliance. The Building Energy Transition Implementation Task Force ("BETITF"), co-chaired by the Maryland Department of the Environment with the Maryland Energy Administration, estimates the compliance costs for buildings covered by BEPS at roughly $1 billion per year. BETITF assumed that at most half of these necessary costs are financeable, meaning that the State would be accountable for funding at least the other half. Modeling commissioned for BETITF, conducted by the engineering firm AECOM, estimated ~$15B in total costs for all covered buildings to achieve compliance. SB 804 applies to all buildings in the State, not just those covered by BEPS. When analyzing HVAC electrification of residential buildings, BETITF estimated that electrification could cost as much as $1.3 billion per year for a total cost of ~$715 per year for each residential building in the State. SB 804 would impose these costs onto Marylanders in the form of high compliance costs for building owners and strain the State's budget without viable sources of funding.

**Feasibility of Implementation**

SB 804 bans using fossil fuels for water and space heating, and questions remain about the legality of such a measure. For example, in March of 2024 Berkely, California repealed its proposed ban on natural gas hookups in new construction after the ban was struck down in federal court. There are also uncertainties around the feasibility of abandoning natural gas for widespread electrification and whether the grid will be able to accommodate the increased load. The United States Department of Energy's ("DOE") 2023 Transmission Needs Study found that PJM must increase within-region transmission by 61% by 2035 and interregional transfer capacity with the Midwest region by 474% by 2035, both relative to 2020 to accommodate high load and high clean energy growth. Major transmission lines can take more than a decade to obtain permits. This does not account for the planning, purchasing of land, construction, and other subsequent activities that go into making new transmission operational on the grid.

Besides the cost and grid impact-related challenges of electrification, there is reason to question whether the site EUI requirements outlined in SB 804 are feasible. According to the DOE, a typical heat pump in a typical home uses 5,475 kWh per year (~18,680 kBtu), and a typical heat pump water heater uses 2,195 kWh per year (~7490 kBtu). Together these two end uses would account for ~83% of a home's site EUI requirement in 2032, without accounting for additional energy needs for lighting, cooking, clothes drying, etc. It is unreasonable to assume any building will be able to comply with this extremely strict requirement.

Finally, the timeline in which the site EUI targets are implemented is very aggressive and not feasible for Marylanders. Going from 17 kBTU/sqft to net zero in three years would require aggressive energy efficiency, solar, storage, and/or electrical heating equipment rollouts and saddle Maryland residents and businesses with significant energy-related costs. This does not consider the availability of the necessary equipment and labor. According to the United States Bureau of Labor Statistics, there will be ~73,500 electrician job openings per year over the next decade. Electricians are necessary to electrify buildings, and this projected shortage will hamper Maryland's ability to electrify on the timeline stated.

**Emissions from Electricity Generation**

While SB 804 is meant to reduce GHG emissions to help meet the State's climate goals, PJM's current and future electricity generation mix presents challenges to reducing GHG emissions through electrification. Today, fossil fuel resources comprise over 55% of PJM's generation mix, with fossil generation often being higher during periods of peak demand, and PJM has documented challenges in interconnecting new renewable energy resources. The State's Climate Pollution Reduction Plan further anticipates that the State's reliance on imported power from PJM will increase ~81% by 2030 and ~142% by 2035 as it retires additional in-State fossil resources and fails to add in-State zero-emission generation at a commensurate pace. The high reliance on fossil-fuel heavy electricity imports from PJM underlines the fact that electrification is not guaranteed to reduce GHG emissions, and SB 804 risks increasing that reliance.

The State's inability to meet its own in-State renewable energy generation targets also highlights the challenges that the electric sector is facing to meet Maryland's climate goals. The United States Bureau of Ocean Energy Management recently excluded a proposed offshore wind energy area in Maryland from an offshore wind lease sale that is set to occur this year. 278,000 acres off the shores of Delaware and Virginia were approved by BOEM, while 78,265 acres off the shore of Ocean City, MD, were deemed unviable due to the significant costs and mitigation of negative environmental effects that would be required. The excluded area was projected to generate between 1.1 – 2.2 GW of power. Meanwhile, Ørsted has cancelled its Maryland offshore wind projects as the State and the broader Northeast region has hit major stumbling blocks in adding their own in-State renewable energy sources. In 2021, Senate Bill 65 revised down the solar carve-out requirement in Maryland's renewable energy portfolio standard for every year from 2023-2029, and the State has been challenged to add sufficient new solar resources. According to the Public Service Commission's 2022 Annual Report, applications for in-State photovoltaic solar renewable energy credits were down by ~3.9% from 2021 and the total capacity of projects approved was only 263 MW, down more than 40% from 2021.

Lower carbon fuels and other GHG emission abatement strategies for the gas system can provide emissions benefits when compared to the emissions profile of the current and projected grid electricity supply, and these solutions should not be disadvantaged by the electrification mandate proposed in SB 804.

Washington Gas Light Company ("the Company") provides safe, reliable natural gas service to more than 1.2 million customers in Maryland, Virginia, and the District of Columbia. Washington Gas has been providing energy to residential, commercial, government, and industrial customers for more than 176 years, and currently serves more than 500,000 Maryland customers in Montgomery, Prince George's, Charles, St. Mary's, Frederick, and Calvert Counties. The Company employs over 500 people within Maryland, including contractors, plumbers, union workers, and other skilled tradespeople. The Company strives to improve the quality of life in our communities by maintaining a diverse workforce, working with suppliers that represent and reflect the communities it serves, and giving back through its 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 at one-third the cost of electricity on a per unit basis.

**Conclusion**

The Company is committed to working with stakeholders to help achieve Maryland's GHG emissions reduction targets. SB 804, by prohibiting natural gas, eliminates an affordable way for Maryland customers to heat their homes, cook their meals, and operate their businesses. Electrification is not the sole solution to climate change in Maryland and should not be treated as such. There is a role for existing and future technology innovation to support diverse pathways to decarbonizing Maryland, and the State's existing natural gas infrastructure can and should be leveraged to preserve affordability, reliability, safety, and security of energy delivery. For the above reasons Washington Gas respectfully requests an unfavorable report on Senate Bill 804. Thank you for your consideration of this information.

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Contact:
Brandon Todd, Vice President, Government Affairs, Policy & Advocacy, Washington Gas
**M 202-744-0816 |** brandon.todd@washgas.com

## SB0804 -- Maryland BEPS - Fossil Fuel Use, Energy

Uploaded by: Brian Levine

Position: UNF

**Senate Bill 804 -- *Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)***
**Senate Education, Energy, and the Environment Committee**
**February 27, 2025**
**Oppose**

The Montgomery County Chamber of Commerce (MCCC), the voice of business in Metro Maryland, opposes Senate Bill 804 -- *Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)*.

Senate Bill 804 requires the Maryland Department of Labor to adopt, by October 1, 2025, and as part of the Maryland Building Performance Standards, energy conservation requirements, an electric- and solar-ready standard for certain buildings, and a requirement that new buildings and significant improvements meet all laundry, water, and space heating demands of the building without the use of fossil fuels.

MCCC supports clean energy policy solutions, recognizing climate change as a serious global threat to national security, the economy, and quality of life. However, MCCC is concerned about the bill's requirements, which create confusion for buildings trying to comply with a constantly changing patchwork of building energy performance standards. This inconsistency complicates development and redevelopment efforts, especially as the supply of attainable housing has become a major policy concern.

In Montgomery County, which has its own stringent building energy performance standards, there is significant confusion. State and county laws differ on which building sizes and purposes must comply, creating challenges in jurisdictions already implementing these standards. Additionally, pending litigation challenging Montgomery County's natural gas ban further adds to the confusion.

**For these reasons, the Montgomery County Chamber of Commerce opposes Senate Bill 804 and respectfully requests an unfavorable report.**

*The Montgomery County Chamber of Commerce (MCCC), on behalf of its members, champions the growth of business opportunities, strategic infrastructure investments, and a strong workforce to position Metro Maryland as a premier regional, national, and global business location. Established in 1959, MCCC is an independent, non-profit membership organization.*

*Brian Levine | Vice President of Government Affairs*
*Montgomery County Chamber of Commerce*
*51 Monroe Street | Suite 1800*
*Rockville, Maryland 20850*
*301-738-0015 | www.mcccmd.com*

**SB 804**
Uploaded by: Brittany Jones
Position: UNF

AN EXELON COMPANY

Position Statement

Oppose
Education, Energy, and Environment
Committee
2/27/2025

**Senate Bill 804 – Maryland Building Performance Standards – Fossil Fuels Use, Energy Conservation and Electricity- and Solar-Ready Standards (Better Buildings Act of 2025)**

Baltimore Gas and Electric Company (BGE) opposes *Senate Bill 804 – Maryland Building Performance Standards – Fossil Fuels Use, Energy Conservation and Electricity- and Solar-Ready Standards (Better Buildings Act of 2025).* Senate Bill 804 would modify the Maryland Building Performance Standards to require by October 1, 2025, that new buildings and significant improvements meet all energy demands without using fossil fuels, meet certain energy conservation requirements, and adopt an electric- and solar-ready standard.

The grid currently is not equipped to support an expansion of electrification of this magnitude. BGE urges caution in considering any legislation that limits or restricts an available fuel source, especially while the State faces an electricity shortfall due to retiring generating facilities and increases in demand. In June of 2025, ratepayers will be faced with increased costs for electricity due to capacity market pricing that is driven by higher demand and less dispatchable generation. Additionally, the Reliability-Must-Run (RMR) agreement, which is a premium rate paid to Talen Energy to keep the Brandon Shores power plant in operation until a transmission mitigation project is completed, will go into effect at this same time. Senate Bill 804 would require new buildings and buildings undergoing significant improvements to not be dependent upon fossil fuels, such as natural gas, beginning October 1, 2025. However, while less fossil fuels would be used with new buildings, 74% of electric generation in our transmission region is already powered by fossil fuels—this bill will actually increase the overall use of fossil fuels needed to generate electricity.

In addition, Senate Bill 804 will eliminate choice for Marylanders. Nationally more than one new residential customer signs up for natural gas service every minute, and approximately 60 businesses begin new natural gas service every day. Marylanders will not have the ability to weigh the options for the lowest cost energy source nor to make the choice that what best fits their needs. Customers continue to choose natural gas, as demonstrated by the nearly 20,000 customers that have joined BGE's gas system over the last five years. While performing pipeline work, when asked if they want to electrify, existing customers continue to choose to stay on natural gas.

Finally, BGE engaged Energy + Environmental Economics (E3) to analyze viable pathways that achieve the State's net zero goals and to identify potential impacts to BGE's customers and service area. E3 analyzed the following three key decarbonization scenario pathways that built on prior work E3 performed for the State: 1) Limited Gas; 2) Hybrid; and 3) Diverse. Each of the pathways could achieve Maryland's net-zero greenhouse gas (GHG) emissions targets and all require significant electrification – including building and transportation electrification. **It is essential that**



Charles Washington| Brittany Jones | Guy Andes| Dytonia Reed| 410.269.5281

**the Maryland General Assembly is informed that the Limited Gas scenario is the most costly option for ratepayers, with a projected net incremental cost of $36 billion**. It is also important to note that immense grid expansion would be necessary over the next twenty years under the limited gas approach, including constructing more than 200 new or expanded substations in a densely populate state, which in addition to being very costly, is also not feasible.

Importantly, the E3 study found that the Hybrid and Diverse pathways, both of which leverage the combined capabilities of electric and gas delivery systems, achieve Maryland's net zero greenhouse gas goals at lower cost and less risk for customers and the State's economy. These Integrated Energy System (IES) pathways also deliver greater resiliency, fuel diversity, more realistic constructability and less disruption to customers and the State's economy.[1] And again, the IES pathways meet Maryland's goal of achieving net zero GHG emissions by 2045.

Such a meaningful shift to the State's building standards as the one contemplated in Senate Bill 804 requires time for planning and implementation. BGE opposes Senate Bill 804 as it forces a drastic shift without appreciating the current ongoing work, costs, and impacts of such a rapid change on all energy customers in Maryland. BGE respectfully requests that the Committee issue an unfavorable report.

[1] BGE_PathToClean_Final_090623.pdf (contentstack.com)



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**SB 804_BOMA_UNF.pdf**
Uploaded by: Bryson Popham
Position: UNF

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February 25, 2025

The Honorable Brian J. Feldman
Chair, Senate Education, Energy, and the Environment Committee
2 West Miller State Office Building
Annapolis, Maryland 21401

RE: Senate Bill 804 - Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)
UNFAVORABLE

Dear Chairman Feldman and Members of the Committee,

I am writing in my capacity as the Legislative Chairman of the Building Owners and Managers Association of Greater Baltimore (BOMA) to respectfully request an unfavorable report on Senate Bill 804.

BOMA, through its nearly 300 members, represents owners and managers of all types of commercial property, comprising 143 million square feet of office space in Baltimore and Central Maryland. Our members' facilities support over 19,000 jobs and contribute $2.5 billion to the Maryland economy each year.

We note that your Committee is currently considering a number of amendments, including amendments submitted by the Department of the Environment, to Senate Bill 49 (Environment - Building Energy Performance Standards - Compliance and Reporting). While we appeared in opposition to that legislation, we were invited to review the MDE amendments and submit comments and language on behalf of the commercial and industrial building owners who comprise our membership. We are in the process of undertaking that task.

In light of the primacy of Departmental legislation, together with the substantial additional requirements contained in Senate Bill 804, we respectfully request an unfavorable report on this legislation to allow all parties to focus the necessary time, attention and effort to House Bill 49.

Very truly yours,

Tim O'Donald

Tim O'Donald
Chair, BOMA Legislative Committee

cc: Bryson Popham

**SB 804 written testimony.pdf**
Uploaded by: Chip Bertino
Position: UNF

**Senate Bill 804**

*Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards*

Position: **OPPOSE**

To: Education, Energy and the Environment Committee

Date: Feb. 25, 2025

From: Chip Bertino, Worcester County Commissioner

I am Worcester County Commissioner Chip Bertino and I am writing to oppose Senate Bill 804, which stands to have significant impacts on both commercial and residential construction costs.

Infrastructure improvements to make buildings ready for clean energy come at a steep cost—a cost that will simply be passed on to home buyers and renters. This will only make Maryland's housing crisis worse. If commercial construction costs go up, economic activity will decrease, as developers will be slower to take on new projects.

We also have to consider the added strain on the electrical grid that will come as fossil fuels are phased out. Ratepayers are already struggling with rising energy costs. Has the state studied the impact building electrification will have on existing infrastructure? The costs of any infrastructure improvements needed to handle the increased demand will fall on ratepayers.

As an elected official in a small rural jurisdiction, another issue I have to consider is whether a small county like ours is equipped to handle the enforcement and compliance challenges that could come with additional building standards. Ensuring structures meet any new requirements is something that will fall on local jurisdictions.

I urge you to provide Senate Bill 804 with an unfavorable report. Thank you for your consideration.

**SB 804_MDCC_Better Buildings Act of 2025_UNFAV (2)**
Uploaded by: Hannah Allen
Position: UNF

MARYLAND
Chamber of Commerce

**Senate Bill 804**

**Date: February 27, 2025**
**Committee: Senate Education, Energy, and the Environment**
**Position: Unfavorable**

Founded in 1968, the Maryland Chamber of Commerce is the leading voice for business in Maryland. We are a statewide coalition of more than 7,000 members and federated partners working to develop and promote strong public policy that ensures sustained economic health and growth for Maryland businesses, employees, and families.

Senate Bill 804 (SB 804) requires the Maryland Department of Labor to adopt a requirement, as part of the Maryland Building Performance Standards, that new buildings are electric- and solar-ready and meet energy conversation requirements without the use of fossil fuels.

This legislation creates high barriers to new construction, resulting in significant challenges for existing and new businesses and future economic development in Maryland. SB 804 would severely restrict the availability of affordable energy options for all new buildings in the state. It also places Maryland at a significant regional economic competitiveness disadvantage by ultimately phasing out the use of other affordable energy sources for buildings that are critical to every jurisdiction in our state.

While the intention of SB 804 is to reduce greenhouse gas emissions by mandating electric-only buildings, it overlooks the fact that a significant portion of Maryland's electricity is generated from fossil fuels. This legislation shifts emissions from individual buildings to electric generation facilities, without fundamentally reducing carbon output. Moreover, it neglects the importance of maintaining a diverse energy portfolio to maintain grid stability, affordable energy rates, and energy security. Additionally, by prohibiting fossil fuel-based appliances, SB 804 also restricts the adoption of innovative technologies such as renewable natural gas and hydrogen, which offer cost-effective and environmentally friendly alternatives for heating and energy needs.

The Maryland Energy Administration released a study in January 2024 on the costs, barriers, and impacts related to requiring both new and existing multifamily residential buildings to include electric vehicle supply equipment or EV-ready parking spaces. The report explains that the infrastructure comes at a steep cost, estimated at $7.4 billion to install EV-ready infrastructure for 50% of parking spaces, which does not include the cost of running power to the building. We encourage the committee to consider these large cost impacts, as an electric vehicle-ready requirement alone will have substantial costs to businesses and residents building or purchasing a new building.

SB 804 also brings forward legal concerns. This legislation is intended to reduce greenhouse gas emissions by mandating electric only buildings and preventing the use of fossil fuel appliances. In

April of 2023, the U.S. Court of Appeals for the Ninth Circuit held that the Energy Policy and Conservation Act (EPCA) preempts state and local building codes concerning the energy use of natural gas appliances, including Berkeley's building code which prohibits natural gas piping into new buildings, preventing the use of natural gas. In January 2024, the Ninth Circuit denied Berkeley's request for review and the panel's decision, which struck down Berkeley's ordinance, was reaffirmed.

It is also important to note that the federal EPCA preempts state laws and regulations that effectively ban certain EPCA-regulated energy products from accessing energy sources. In most buildings, appliances like natural gas furnaces and water heaters fall under the category of "covered products" according to the EPCA. EPCA precludes states from setting energy conservation standards for these products, especially when state laws effectively prohibit their use. SB 804, by mandating electric-only buildings and prohibiting fossil fuel appliances, conflicts with EPCA regulations, likely rendering it preempted by federal law.

Lastly, the Chamber is concerned that SB 804 fails to account for customer choice and could lead to affordability and reliability issues. We believe that legislation aimed at reducing greenhouse gas emissions must be comprehensive, inclusive of innovative technologies, and mindful of federal regulations to ensure a sustainable and prosperous energy future for Maryland. While we have been supportive of efforts to responsibly reduce emissions, Senate Bill 804 sets for an unrealistic implementation timeline that would drastically change the permitting process for future construction in the state. A sole source energy policy poses risks, high costs and challenges. A balance should be struck between reducing emissions, promoting technological innovation, and ensuring affordability, accessibility and choice for consumers.

For these reasons, the Maryland Chamber of Commerce respectfully requests an **Unfavorable Report** on **SB 804.**

**MBIA Letter of Opposition SB 804.pdf**
Uploaded by: Lori Graf
Position: UNF

MARYLAND BUILDING INDUSTRY ASSOCIATION
11825 West Market Place | Fulton, MD 20759 | 301-776-6242

February 27, 2025

The Honorable Brian Feldman
Chairman, Senate Education, Energy, and the Environment Committee
2 West Miller Senate Office Building
Annapolis, Maryland 21401

**RE: MBIA Letter of Opposition SB804 Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)**

Dear Chairman Feldman,

The Maryland Building Industry Association, representing 100,000 employees statewide, appreciates the opportunity to participate in the discussion surrounding **SB804 Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)**. MBIA **opposes** the Act in its current version.

This bill requires the Maryland Department of Labor to adopt a requirement that new buildings meet all water and space heating demands of the building without the use of fossil fuels, energy conservation requirements, and an electric– and solar–ready standard for certain buildings. While we fully support the goals of promoting sustainability and environmental responsibility, we believe that the provisions in this bill will present significant challenges for our industry. Implementing the mandated requirements for electric vehicle infrastructure, solar readiness, and energy conservation measures is likely to increase construction costs significantly. Ensuring compliance with these standards will require specialized expertise and resources that may not be available or cost-effective for all stakeholders involved.

Additionally, meeting the new standards will require more time for planning, design, and construction. This will add significant delays to the construction process that is already very slow. This bill will further add a disincentive for investment in housing in Maryland. As you know, Maryland currently faces a housing shortage of approximately 96,000 housing units. If nothing changes, that number will increase by 5600 units per year.

The National Association of Homebuilders reports that the estimated rent of a Maryland Housing Units is more than 30% of household incomes state wide with 25% of people spending more than 50% of their income on housing. In order to address this problem, we need a concerted effort to make housing available, and affordable to the residents of this state. This bill is a step in the wrong direction.

For these reasons, MBIA respectfully urges the Committee to give this measure **an unfavorable** report. Thank you for your consideration.

For more information about this position, please contact Lori Graf at 410-800-7327 or lgraf@marylandbuilders.org.

cc: Members of the Senate Education, Energy, and the Environment Committee

**SB804_MAPDA_unf (2025).pdf**
Uploaded by: Mike O'Halloran
Position: UNF

Mid-Atlantic Petroleum Distributors Association
P.O. Box 711 ★ Annapolis, MD 21404
410-693-2226 ★ www.mapda.com

TO: Senate Education, Energy, and the Environment Committee

FROM: Mid-Atlantic Petroleum Distributors Association

DATE: February 27, 2025

RE: **SENATE BILL 804** – Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards

On behalf of Maryland's energy marketers, MAPDA urges the committee to issue an unfavorable report on SB804.

This bill requires the Maryland Department of Labor (MDL) by October 1, 2025, to adopt, as part of the Maryland Building Performance Standards (MBPS), a requirement that new buildings and significant improvements meet all laundry, water, and space heating demands without the use of fossil fuels.

MAPDA members provide a required and necessary energy, directly and as a backup source, to key institutions like colleges, schools, hospitals, farms, military bases, and more. They are often small and family-owned businesses employing hundreds of Marylanders and supplying thousands of customers with the fuel that keeps them warm, fed, and on the road.

Maintaining a diverse energy portfolio as Maryland currently does is both safe and economical for our state's residents and businesses. Forcing the electrification of the state's building stock places further strain on Maryland's grid at a time it least can afford to do so. Capacity issues continue to cause concern. Adding more demand as SB804 would do is ill advised.

This bill would also stifle future advancements in our industry in the field of bio- and renewable fuels, for example. Our industry continues to reduce its greenhouse gas emissions. Bio- and renewable fuels offer economical, "drop-in" alternatives to traditional heating oil.

Fuel switching to electricity has other embedded costs outside of the fact it costs more per unit of energy (P.2, Table 1). Purchasing and installing new appliances and the necessary onsite electrical upgrades all add to the costs borne by consumers and customers. They are best served through choice and competition.

For these reasons, MAPDA respectfully requests an **unfavorable committee report on SB804**.

**Suburban Propane - Senate Bill 804.pdf**
Uploaded by: Paul Rozenberg
Position: UNF

240 Route 10 West
P.O. Box 206
Whippany, NJ 07981-0206

www.suburbanpropane.com

Paul M. Rozenberg
*Senior Manager, Government Affairs & Corporate Communications*

prozenberg@suburbanpropane.com
(p) 973.503.9915
(c) 862.217.9643

February 25, 2025

**VIA ELECTRONIC SUBMISSION**
Senator Brian Feldman
Chair, Senate Education, Energy, and the Environment Committee
Maryland General Assembly
2 West Miller Senate Office Building
Annapolis, Maryland 21401

***RE: Senate Bill 804***

Dear Chair Feldman:

Suburban Propane writes in regards to Senate Bill 804, which requires new buildings meet all water and space heating demands without the use of fossil fuels. Suburban Propane has been serving customers for nearly 100 years and is the nation's third-largest propane retailer with operations in 42 states. In Maryland, we currently have 135 employees at 19 locations serving more than 40,000 customers.

Suburban Propane supports Maryland's overall goal of reducing the carbon footprint of buildings. However, pushing all building construction towards electricity as the only energy source comes with significant costs and is not an effective way to achieve the State's goal. Combatting the impacts of climate change will require a technology-neutral approach that uses all available fuel sources, including: low carbon intensity (CI) traditional propane, lower-CI renewable propane, zero- or negative- CI blends of traditional propane, renewable propane, and/or renewable dimethyl ether (rDME); and renewable natural gas (RNG). Therefore, we ask that Senate Bill 804 be amended to promote a technology-neutral approach encouraging the use of all low-CI energy sources to achieve Maryland's emissions reduction target.

Senate Bill 804 clearly prioritizes electricity under the inaccurate assumption that electricity is the energy source with the lowest carbon intensity. Electricity can be a tool in reducing the carbon footprint of buildings, but rapid electrification is detrimental to decarbonization. If buildings move to all-electric too quickly, it further taxes an already overburdened electrical grid. More power must be generated, which will most likely come from increased electric generation at existing power plants using fossil fuels, negating any benefit electrification may provide, and increasing electricity costs for residents.

Meanwhile, other low-, zero, and negative-CI fuels, including those previously mentioned, are already available to consumers and can be used in existing infrastructure, allowing for immediate reductions in carbon emissions and saving residents thousands of dollars in conversion costs. For example, our subsidiary, Suburban Renewable Energy (Suburban Renewables), owns and operates RNG production facilities in Arizona, New York, and Ohio. This RNG is a drop-in replacement for natural gas and can use the existing natural gas transmission and distribution system.

Instead of relying solely on electricity, we encourage the State to adopt a technology-neutral approach in reducing carbon emissions, similar to the clean fuel standards adopted in California, New Mexico, Oregon, and Washington for transportation emissions, and permit the use of other energy sources that are low-carbon, including traditional and renewable propane. Propane is a reliable and abundant energy source that millions of households and businesses use for heating, cooking, and other purposes. Rural communities, like many of the communities in Maryland, rely on propane as they do not have access to natural gas lines.

Suburban Propane is proud to be leading the propane industry in the energy transition to a low-carbon world. Through our Suburban Renewables platform, we are also committed to investing in the next generation of even cleaner, less carbon-intensive energy sources, such as rDME, biogas, renewable natural gas, and hydrogen. However, it will take time to bring these new products to widespread commercial scale and the use of propane will be important in reducing emissions in the short term.

We urge the Senate Education, Energy, and the Environment Committee to amend Senate Bill 804 by adopting a technology-neutral approach that incentives buildings to use low-carbon, carbon-neutral, or carbon-negative fuels. We would appreciate the opportunity to discuss with you how propane, renewable propane, and other low-carbon fuels can play a role in lowering the carbon footprint of buildings in Maryland. Thank you for your consideration.

Sincerely,

/s/ Paul M. Rozenberg

Paul M. Rozenberg
Senior Manager, Government Affairs &
Corporate Communications
Suburban Propane

**MCIES LOO SB 804 HB 973_Feb 24.pdf**
Uploaded by: Sarah Peters
Position: UNF

**Bill:** SB 804/HB 973- Better Building Act of 2025

**Position:** OPPOSE

Dear Chair, Vice-Chair and Members of the Committee:

The Maryland Coalition for Inclusive Energy Solutions, Inc. (MCIES) is a coalition of diverse stakeholders, including representatives from organized labor, manufacturing, energy production, transportation, and public utilities. Together, we are advocating for the inclusivity of all energy types, including natural gas, renewable natural gas, hydrogen, propane, and nuclear power. We write in opposition to SB 804 and HB 973.

Essentially mandating building electrification—and thereby increasing electricity demand—comes at a time when Maryland is already struggling to meet both current and future electricity needs. This bill fails to address the necessity for a diverse and robust energy portfolio, which is critical for maintaining grid stability and ensuring affordable utility rates.

Recent market developments underscore the economic risks associated with this legislation. For instance, the July 30, 2024, PJM Interconnection power market auction saw an over 800% increase in electricity prices across Maryland and the broader PJM footprint. As a result, any anticipated energy cost savings from mandated building electrification will be significantly diminished by these rising electricity costs.

The proposed legislation also bars the use of emerging technologies such as renewable natural gas and hydrogen, which have the potential to provide cost-effective heat and energy while achieving meaningful reductions in greenhouse gas emissions in both the short and long term. By mandating an electric-only approach, this legislation effectively restricts consumer and builder choice. Financial considerations are a major factor in decisions regarding the construction or modification of homes and businesses; therefore, preventing alternatives that may be more economically viable is both impractical and detrimental.

For these reasons, we respectfully request an unfavorable report.

Sincerely,

Sarah Peters
Executive Director

**MD 2025 SB 804 Columbia Gas Testimony Final.pdf**
Uploaded by: Scott Waitlevertch
Position: UNF

Columbia Gas of Maryland
A NiSource Company

**UNFAVORABLE – Senate Bill 804**
**Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation and Electric- and Solar-Ready Standards**
**Senate Education, Energy and the Environment Committee**

Columbia Gas of Maryland, Inc. opposes Senate Bill 804, which requires the Department of Labor to adopt as part of the Maryland Building Performance Standards a requirement that new buildings and buildings that undertake significant improvements meet all laundry, water and space heating demands of the building without the use of fossil fuels. The legislation also requires electric- and solar-ready standards for certain buildings and mandates energy conservation standards, including Energy Use Intensity (EUI) standards for buildings.

Mandating building electrification and increasing electricity demand at a time when Maryland is struggling to meet its current and future demands for electricity is not appropriate public policy.

Electrifying buildings does not necessarily lead to decarbonization. A significant percentage of electricity provided to Maryland today is supplied by fossil fuels. Mandated building electrification just shifts the point source of emissions from a new building to a base load electric generation facility. Senate Bill 804 fails to address the need for a diverse and robust energy portfolio, necessary to maintain grid stability and reasonable, affordable utility rates for residential homes and commercial buildings in Maryland.

As the members of the Committee know, the July 30, 2024, PJM Interconnection power market auction produced a more than 800% increase in prices for electricity in Maryland and the PJM footprint. Any alleged energy costs savings estimates by mandating building electrification will be even less with increasing electricity costs, and the public and Maryland General Assembly should be aware of the new economic impact to building owners.

Based on a recent study by Columbia Gas examining annual operating costs for customers in our service territory that compared current electric rates with our natural gas rates, natural gas is a lower cost heating fuel. A customer using a natural gas furnace can save more than 60%, compared to a similar customer using an electric resistance furnace. Customers using a modern gas furnace can save 10% - 34% compared to similar electric heat pumps. Prohibiting energy choice and mandating electrification in new buildings and buildings undertaking significant alterations will increase costs to Marylanders.

The legislation prevents the use of new technologies like renewable natural gas and hydrogen which is expected to provide cost-effective heat and energy to homes and businesses. In addition to the cost-effectiveness, these technologies can produce meaningful greenhouse emission reductions over other conventional energy sources in the short and long term and thus should not be barred from use.

While the proposed legislation allows a local jurisdiction to grant a waiver from the requirement for emergency back-up power systems and buildings designated for use by five types of business, it ultimately prevents customer choice for those building or modifying their own homes or building or modifying commercial business space in the future. Under the bill, financial considerations are not a sufficient basis to pursue a local waiver of the requirement. To the contrary, Columbia Gas respectfully submits that financial considerations are *the* major consideration when building or modifying a home or business.

It should be noted, the federal Energy Policy and Conservation Act (EPCA) preempts state regulations or laws that effectively ban EPCA-regulated products from accessing necessary energy sources. *See, e.g.*, 42 U.S.C. § 6297(c). Senate Bill 804 is expressly intended to reduce greenhouse gas emissions by mandating electric only buildings and preventing the use of fossil fuel appliances. In most buildings, appliances like natural gas furnaces and water heaters are "covered products" under EPCA and EPCA preempts efforts by states to establish "energy conservation standards" relevant to these products, particularly where state legislation functionally ban the use of the products. Accordingly, Columbia Gas believes this legislation is preempted by federal law.

Furthermore, the Speaker of the House and the President of the Senate recently stated Maryland needs to pursue "an all of the above" approach to energy. Senate Bill 804 and its prohibition on the use of fossil fuels in buildings runs counter to that approach.

The requirements of Senate Bill 804 limit energy choice by Marylanders and increase costs on them. Consequently, Columbia Gas cannot support Senate Bill 804 as appropriately crafted policy on greenhouse gas emission reductions and therefore urges an unfavorable report.

February 27, 2025

Contact:
Carville Collins
(410) 332-8627
carville.collins@saul.com

Contact:
Scott Waitlevertch
(724) 888-9774
swaitlevertch@nisource.com

**SB 804_Chesapeake Utilities_Unfav (02-27-25) (Fina**
Uploaded by: Steve Baccino
Position: UNF

February 27, 2025

**HOUSE ENVIRONMENT & TRANSPORTATION COMMITTEE**
**SB 804 – Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)**

**Statement in Opposition**

Chesapeake Utilities Corporation ("Chesapeake Utilities") respectfully **OPPOSES** certain provisions contained in SB 804. Among other things, SB 804 seeks to artificially restrict the availability of a proven, affordable, reliable and domestic energy supply in all new buildings and and in any "significant improvement" to an existing building – effective October 1, 2025.

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 ongoing energy and climate change discussions. Moreover, Chesapeake Utilities is committed to continuing being part of the solution as Maryland addresses greenhouse gas emissions.

**SB 804 is deliberately designed to increase costs for existing gas customers until they can no longer afford service.** When gas companies add new customers, their fixed costs are spread over a larger customer base (keeping costs down for all customers). SB 804 intends to cut-off the ability of gas companies to add new customers, causing existing customers to pay more and more for their service – this is referred to as a rate "death sprial." This unprecedented and unchecked rate inflation will continue until existing customers can no longer afford to maintain their service. Of course, remaining natural gas customers especially those who happen to be low and middle-income will be the most adversely impacted due to these artificially created costs increases.

**SB 804 will significantly increase costs for owners of new buildings and existing gas customers.** According to the Maryland Commission on Climate Change ("MCCC"), direct use emissions from all current buildings account for only 13% of economy-wide greenhouse gas ("GHG") emissions in Maryland.[1] These current emissions have decreased (and will continue to decrease) from historical levels because of natural gas. SB 804 would impose significant costs on the construction of all new buildings to be built to be electric ready – *whether the home buyers wants it or not*. Moreover, any laboratory, hospital, commercial food establishment and crematorium are forced to request individual waivers it they cannot feasibly use energy generated from a source other than fossil fuels. Other than providing that "financial considerations" are insufficient grounds for

[1] *See* E3's *Maryland Building Decarbonization Study*, September 16, 2021, at 5

a waiver, SB 804 provides no criteria or explanation as to any grounds that are sufficent to grant such a waiver.

**SB 804 unnecessarily eliminates an energy option that Maryland customers want**. Approximately 1.3 million households and businesses in Maryland use gas. The number of gas customers (both the number of residential customers and the total number of customers from all rate classes) grew at approximately one percent per year from 2014 through 2022. In 2022, Maryland's customers purchased about 168 million dekatherms of gas. Between 2014 and 2022, the total amount of gas purchased by Maryland customers grew by an average of 0.52 percent per year. This increase in total gas purchases is consistent with the fact that the number of gas customers is growing. However, it is important to note gas purchases are rising more slowly than the number of customers. Accordingly, gas usage per gas customer is *declining* slightly. For example, for the three largest gas utilities in Maryland, Baltimore Gas & Electric, Washington Gas, and Columbia MD, average residential throughput has decreased by 4.15 percent since 2014. The fact that the number of gas customers is increasing, but their average gas usage is declining can be explained by energy efficiency (e.g., more efficient appliances or improved insulation in buildings) and conservation efforts by customers (e.g., using a programmable thermostat). The data is clear, an increased number of Maryland residents continue to choose natural gas, purchase energy efficient appliances and adjust behaviors to conserve energy. We respectfully suggest that the State should not prohibit the use a proven and affordable energy resource.

**SB 804 compromises Maryland's electric grid and fails to recognize alternatives.** Today, Maryland building owners who live in areas served by fossil fuels, such as natural gas and propane, can choose to use the fuels or not. However, SB 804 assumes that forcing electrification on all new buildings is the right choice for Maryland to lower its GHG emissions. On the contrary, the fact that natural gas and propane have been replacing the use of dirtier fuels, such as fuel oils, is a primary driver of lower emissions from the residential and commercial building sector.

Also, banning and reducing the use of fossil fuels will significantly increase the amount of electricity required to be delivered to Maryland customers. Delivering this increased amount for electricity into Maryland will require billions of dollars of annual investments in the State's electric transmission and distribution system. Electric transmission and distribution system planning is a complicated and time-consuming process, as it should be. It can take years to obtain the regulatory and federal/state/local permit approvals necessary to construct electric transmission lines, substations, and related facilities. SB 804 would significantly increase the demand for electricity in Maryland, especially if multiple, large counties implement fossil fuel bans on all new buildings.

**SB 804 may be preempted by federal law**. The Energy Policy and Conservation ACT (EPCA) preempts state regulations or laws that effectively ban EPCA-regulated products from accessing necessary energy sources. The State should reconsider its approach to ensure alignment with the Energy Policy and Conservation Act, foster consumer choice, and preserve access to today's cost-effective technologies and options and future emerging renewable technologies.

**SB 804 will negatively impact emerging renewable technologies**. The development of, and transition to, emerging renewable technologies such as renewable natural gas and hydrogen, to offset "traditional" natural gas, are a way to lower GHG emissions. Chesapeake Utilities currently owns a Maryland company, Planet Found Energy Development, that is developing a process to turn chicken litter into organic fertilizer and renewable natural gas (RNG), also referred to as biomethane or biogas. RNG is a fossil-free natural gas that is produced from naturally occurring sources such as food waste, manure, and other animal/plant-base materials to create biogas. The biogas is upgraded and cleaned to a quality similar to traditional natural gas and can be injected into a public utility's natural gas distribution system to offset the use of traditional natural gas. RNG can be used just like natural gas and is clean, reliable, and environmentally friendly and can also be used as a transportation fuel for vehicles. In addition, Chesapeake Utilities also recently completed a successful test that blended hydrogen with a gas supply to power a combined heat and power unit. The State should not discourage the use of these emerging renewable technologies that have been proven effective here and in other states to offset greenhouse gas emissions.

On behalf of Chesapeake Utilities Corporation, and our thousands of employees and their families who contribute every day in the communities where they live, work and serve, we respectfully request an unfavorable vote on SB 804.

Sincerely,

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

**SB 804 - Better Buildings Act of 2025 - NAIOP - UN**
Uploaded by: Tom Ballentine
Position: UNF

NAIOP
MARYLAND CHAPTERS
THE ASSOCIATION FOR COMMERCIAL REAL ESTATE

February 25, 2025

The Honorable Brian J. Feldman, Chair
Senate Education, Energy, and the Environment Committee
2 West Senate Office Building
Annapolis, Maryland 21401

**Unfavorable – SB 804 – Better Buildings Act of 2025**

Dear Chair, Feldman and Committee Members:

The NAIOP Maryland Chapters, representing more than seven hundred companies involved in all aspects of commercial, industrial, and mixed-use real estate, recommend your unfavorable report on SB 804.

This bill requires that the Maryland Codes Administration replace sections of the International Building Code, International Residential Code and the International Energy Conservation Code with requirements that include; **1)** that all new construction and major renovations meet all laundry, space and water heating demands without the use of fossil fuels; **2)** that all new construction and major renovation of buildings up to 20 stories in height install infrastructure to make them "solar ready", and; **3)** new construction of buildings 35,000 square feet and less are required, depending on the building type and year of construction, to achieve performance levels that are 35% - 65% more energy efficient than the 2006 energy code.

NAIOP's unfavorable position is based on the following considerations:

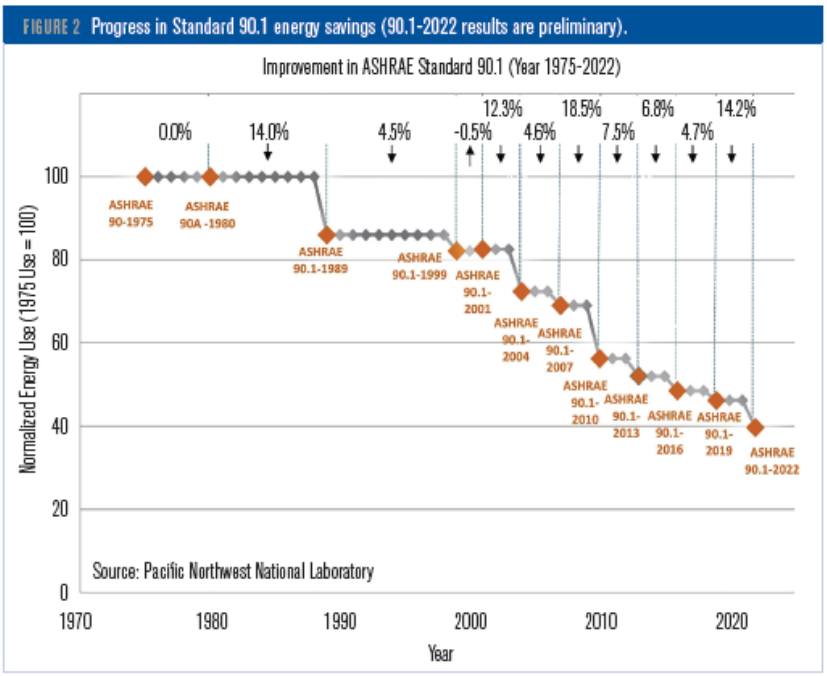
- The fossil fuel prohibitions in the bill contradict the Building Energy Performance Standards (BEPS) including the deadline for covered buildings to reach net zero direct greenhouse gas emissions by 2040 and the ability to pay alternative compliance fees for direct emissions.
- The bill presents arbitrary and unsupported end to fossil fuel use in existing buildings that will expose natural gas customers to escalating system-wide operating costs. The pace and location of buildings and existing customers dropping off of the natural gas system will be haphazard - based on renovation decisions. As existing users drop off of the natural gas system and new customers fail to replace them, the costs of operating the system will be borne by fewer and fewer remaining natural gas customers resulting in escalating costs. If the General Assembly wishes to sharply curtail the use of natural gas in commercial and residential buildings, the Public Service Commission should be tasked with developing a plan that can limit ratepayer impacts and can keep the gas utilities operational.
- Proponents have, incorrectly, cited a study completed by an MDE consultant (E3) in support of the MDE Building Energy Transition Plan as evidence the bill will reduce consumer costs. What many advocates have failed to note is that the data in that study was based on favorable utility rates and equipment costs in 2035. The findings of the E3 study are summarized in the Plan as follows, *"E3 found that, given continued improvement in the cost and performance of electric space and water heating equipment and projected increases in natural gas rates, by 2035, most all-electric buildings will have lower lifecycle costs than mixed-fuel alternatives."* (MDE Building Energy Transition Plan p. 15). Case studies of existing large buildings are returning 20-30% increases in utility costs, coupled with high capital costs for equipment and offsite electric infrastructure upgrades. MDE's cost benefit analysis of BEPS determined that between 2025 and 2040 compliance with BEPS will cost building owners and occupants $15.2 billion and only achieve $8.2 billion in energy costs savings.
- Members should be aware that multifamily residents in some buildings will see new and increased utility bills. Residents of buildings served by central boiler systems that are converted to unitary (in unit) heat pumps will, for the first time, have an individual utility bill to pay. Advocates expect the efficiencies of the heat pump equipment to reduce overall utility costs but that will be determined case by case by personal usage, the quality of insulation and air sealing of the building. These changes will require considerable capital costs to install the equipment and upgrade offsite electric service to the building. In many cases these costs will be higher than what can be offset by lower utility costs.
- NAIOP does not believe a major energy source should be curtailed before its replacement is in place. The requirement that fossil fuel systems be replaced at major renovation and prohibited in new construction begins October 1, 2025. This abrupt end to fossil fuel use comes at a time when the PJM system operator is warning of electric capacity shortages as early as the

**U.S. Mail:** 12 Francis Street, Annapolis, MD 21401 **Phone:** 410.977.2053 **Email:** tom.ballentine@naiop-md.org

2026/2027 delivery year begins June 1, 2026. At its January 15th briefing to the Economic Matters Committee, PJM noted that demand for electricity is growing at the fastest pace in years, in part due to the electrification of buildings. Thermal power generators are retiring at a rapid pace and new replacement electric generating resources with needed reliability attributes are not being built fast enough. There are numerous proposals to increase in-state generation, but it may be several years before they impact the imbalance in electricity supply-demand. This is not the appropriate time to limit access to existing power sources.

- <u>The solar ready requirements mandate installation of infrastructure that may never be used</u>. The bill requires buildings up to 20 stories tall to be solar ready. Buildings that are three stories and taller are unlikely to generate enough solar energy to make up a meaningful percentage of the building's energy use. Further, the installation requirement applies without regard to whether the building is located in an area where the equipment may be approved for grid interconnection. If it were approved for interconnections, because of its intermittent nature, fixed solar has the lowest Effective Load Carrying Capacity and is credited at only 8% of nameplate capacity.,

- <u>The energy efficiency requirements impose new requirements on buildings 35,000 square feet and smaller</u> – This subsection is awkwardly worded, unlikely to be easily implemented and already covered by current and future energy code requirements. Between 2007 and 2022 the ASHRAE Standard 90.1 has improved average energy efficiency in large commercial and multifamily buildings by 51.7%.




The code is reissued every three years with stronger requirements for air sealing, insulation, HVAC system and lighting efficiency. The average improvements are calculated across all building types and include deeper savings in certain building types than others.

SB 804 requires all buildings to achieve on average energy efficiency that is 45-65% better than the 2006 energy code. We don't see how that would be implemented by local code officials or possible for all building types to achieve.

ASHRAE and the IECC, the two main code writing bodies, have both committed to producing progressively more efficient codes and standards. ASHRAE is nearing the limits of performance using commercially available technologies and will reach and surpass that level in one of the next two code cycles.

Both code writing organizations have the testing capacity and expertise to provide a comprehensive approach that will specify mechanical systems and complimentary design practices that are technically feasible, commercially available, and cost effective for builders and occupants. The international codes framework provides technical resources and training for code officials, design teams, construction crews, and building operators to apply these principles across all building types. We urge the committee not to override building and energy codes as proposed in SB 804.

**<u>For these reasons, NAIOP respectfully requests your unfavorable report on SB 804.</u>**

Sincerely,

Tom Ballentine, Vice President for Policy
NAIOP Maryland Chapters - *The Association for Commercial Real Estate*

cc: Environment and Transportation Committee Members
Nick Manis – Manis, Canning Assoc.

**2025-MML-SB804-Unfavorable.pdf**
Uploaded by: Tyler Brice
Position: UNF

Maryland Municipal League
*The Association of Maryland's Cities and Towns*

# TESTIMONY

February 27, 2025

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

**Bill:** SB 804 - Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2025)

**Position:** ***Unfavorable***

**Reason for Position:**

On behalf of the Maryland Municipal League (MML), representing 161 local governments across the state, we respectfully submit this testimony in opposition to Senate Bill 804. While we understand the intent behind the bill, to push for cleaner, more energy-efficient buildings, there are significant concerns regarding the mandate's impact on local governments and their ability to effectively manage and enforce the new building standards.

Senate Bill 804 imposes a significant burden on local municipalities that may not have the resources or infrastructure to effectively implement and enforce these new energy standards. Local governments are already tasked with managing multiple aspects of urban planning, zoning, public safety, and infrastructure. The addition of new and complex building requirements related to fossil fuel elimination and electric- and solar-readiness will place an overwhelming strain on local code enforcement officers and staff. Many municipalities, particularly smaller jurisdictions, simply do not have the technical expertise or resources to adequately enforce these mandates without significant additional support from the state. The bill introduces ambiguity regarding the scope of local authority in issuing waivers and enforcing standards. While local jurisdictions are allowed to issue waivers for emergency power systems, the criteria for these waivers are not clearly defined. This lack of clarity could lead to inconsistent application of the law across the state, creating confusion for developers, municipalities, and residents alike. Local governments may be put in a position where they must make difficult decisions without clear guidance on how to balance energy efficiency with critical community needs.

The timeline established in the bill for compliance with these energy standards is overly aggressive. The Department of Labor is required to adopt regulations by October 2025, leaving local governments with little time to adapt to the new rules and train staff adequately. This rushed timeline could result in hasty decisions and increased costs for municipalities, ultimately detracting from the goals of the bill.

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The bill does not provide sufficient financial support to local governments to assist with the implementation and enforcement of these energy standards. Without dedicated funding or resources, municipalities may be forced to divert funds from other critical projects to comply with this unfunded mandate, negatively affecting other essential community services.

The Maryland Municipal League believes that while the goals of SB 804 are laudable, the bill as currently written imposes unreasonable burdens on local governments and does not provide the necessary support to ensure successful implementation. We respectfully urge the committee to consider these concerns and either amend the bill to provide adequate resources and support for local governments or delay its implementation to allow for a more measured and collaborative approach.

For more information, please contact Tyler Alexis Brice, Manager of Advocacy and Public Affairs, at tylerb@mdmunicipal.org or 254-652-8110.

Thank you for your consideration.