



HoCoClimateAction.org
Howard County, Maryland

**Testimony on HB831
Reducing Greenhouse Gas Emissions - Commercial and Residential Buildings**

Hearing Date: February 25, 2022
Bill Sponsor: Delegate Dana Stein
Committee: House Environment and Transportation
Submitting: Ruth White for Howard County Climate Action
Position: Favorable with amendments.

[HoCo Climate Action](#) -- a [350.org](#) local chapter and a grassroots organization representing more than 1,450 subscribers, and a local group of the international climate organization [350.org](#) – supports HB831 - Reducing Greenhouse Gas Emissions - Commercial and Residential Buildings.

We are in a time of climate crisis with Maryland's coastline barely above sea level and experiencing continual local flooding. Even if the world meets the IPCC Paris Agreement, the University of Maryland's Center for Environmental Services estimates MD sea level rise of .8 to 1.6 ft. by 2050 and 1.2 to 3 ft. by 2100 and some estimates are higher. The largest GHG emissions nationwide and in Maryland are from buildings and transportation. Many bills address mass transit and electric cars. We also need to target greenhouse gas emissions from buildings.

Our HoCoClimateAction group is particularly excited about supporting the buildings provisions in HB831. We closely followed the work of the Maryland Commission on Climate Change's Building Transition Report ([here](#) and [here](#)) and are pleased that their findings and recommendations are reflected in this bill.

Since buildings emit 40% of Maryland's greenhouse gasses (13% of which are direct emissions) and account for 90% of Maryland's electricity use, improving building energy performance and transitioning buildings off of fossil fuels is crucial to reaching Maryland's climate commitments. We applaud provisions to electrify new buildings to meet future climate goals.

Please note that the fossil gas industry and pipeline installers are circulating a fairy tale that they can fill pipelines with methane gas that is non (or less) polluting since it is made from organic sources like food waste, poop, wood in the form of costly biogas and more. Even youngsters know this is a fairy tale. The science is that biogas and similar substances the industry calls "renewable gases" are composed of methane (CH₄), the same compound in "natural" gas. Gas is delivered to buildings via pipelines. All pipelines leak. And methane is methane, whether from

fossil gas or the other gases (which are also expensive to produce and a small % of total gas used)

We joined the movement to ban fracking in Maryland and are committed to limiting, not expanding, gas use in Maryland. To move to a clean energy future, it is crucial to stop allowing gas-fired building stock that will require costly retrofits.

HB0831

- requires that all new buildings meet water- and space-heating needs without the use of fossil fuels by 2023,
- establishes a process to gradually retrofit existing commercial and large multifamily buildings, and
- establishes a Building Energy Transition Implementation Task Force to plan for and assist the retrofit/ electrification of existing buildings.

HoCo Climate Action has additional suggestions for building electrification provisions. As drafted, the legislation allows for gas stoves/cooktops. These are responsible for excessive indoor air pollution and illness, especially if the space is not well-ventilated. See RMI article [here](#). According to [this Washinton Post article](#), two-thirds of Americans already use electric stoves. If gas stoves/cooktops are still allowed, we recommended that the bill mandate that codes for new buildings require venting to the outdoors. In addition, if builders install gas stoves/cooktops in new buildings, they should be required to also install electrical outlets designed for electric and induction stoves, to provide choice when appliances are replaced.

We share the concern of the National Housing Trust and others that electrification of new buildings and changes to existing building codes do not unduly burden low income residents and make housing less or unaffordable for vulnerable populations. HB831 sets the goal of completing retrofits for low-income households by 2030, and we agree this is an important goal. We would like to see stronger provisions to ensure that this can occur as soon as possible, and that low-income residents are not left to bear the higher costs anticipated for those left in the gas system.

For all of these reasons, we support this bill and urge a favorable vote from the Committee, with the inclusion of the suggestions above and the following amendments from the Maryland Climate Partners.

HoCo Climate Action

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Amendments for HB831 - Coordinated by the Maryland Climate Partners

1. Strengthen provisions related to Building Energy Performance Standard

HB831 directs MDE to create a Building Energy Performance Standard (BEPS) which will require reduced emissions from commercial and residential buildings over 25,000 sq ft. This is a critical policy Maryland must enact to reduce pollution from existing buildings and move towards net zero. Colorado, Washington State, Washington DC already have similar programs, and Montgomery County is currently prepared to vote to implement a BEPS program. There are some critical amendments that should be added to ensure the policy achieves its intended goal.

- **Clarify that the policy should establish targets to “energy use intensity” which includes reductions on both electricity usage AND onsite fossil fuel use for heating, water & cooking.**
 - As written, the bill appears to target just onsite emissions, which means the burning of fossil fuels for heating and cooking, also known as “scope 1”. It should also include reductions in electricity usage.
 - Improved building energy efficiency will reduce overall electricity demand (helping grid transition) and can result in smaller sized heating and cooling systems.
 - Energy efficiency (e.g., site electricity use) includes: maintaining and retro-commissioning building energy systems; implementing HVAC scheduling and other smart control systems; and making building shell and other energy efficiency improvements.
 - This aligns with the recommendations of the MD Commission on Climate Change’s Building Energy Transition Plan (see p. 23).

- **Add an interim target of at least 40% by 2035.** We want to ensure that annual reductions are spread out (SB 528 on page 47, lines 5-14) This will also align the numerical goals of HB831 with SB528. Interim goals provide helpful guidance to MDE.

2. The new fossil-free construction code to new buildings should apply to all new buildings, and end of life system retrofits.

HB831 takes an important step of requiring that Maryland Dept of Labor, which establishes MD building codes, specify that new commercial and residential buildings must be built to use electricity (not fossil fuels) for heating. Additionally, require that the majority of space heating and service water heating use heat pumps. The current language limits the new code to “commercial and residential”.

The new construction code should apply to ALL new buildings - Commercial, residential, and government buildings. (page 8, starting line 8)

- Our public buildings, including our schools, should be models for the rest of society, and should be stronger, or at a minimum comparable, to other building standards.
- It is our understanding that HB806 addresses construction standards for new public buildings, potentially based on levels for state funding. We support stronger goals for state buildings, but the new construction codes laid out in HB 806 should apply to all buildings, regardless of level of state funding.
- If we don’t apply the all-electric standard to all buildings, every time we build a building that is not all-electric, it is one more building we will have to retrofit. Retrofitting is far more expensive than building the all-electric in the first place.

- With a state surplus and plans to spend significant money on schools through the Built to Learn funding, this is the ideal time to pay-it-forward. Building schools with fossil fuel infrastructure will require far more funds in the future to operate and eventually retrofit.

3. Add “Energy Efficiency” to new construction Commercial code requirements

An increasingly popular approach to this is for a city or state to adopt a “stretch code” which adds provisions on top of the standard code to achieve additional energy efficiency improvements. Washington State, City of Seattle, California, New York City, as well as Montgomery County and Baltimore City, are just a few of the jurisdictions taking this approach. The Maryland General Assembly notes that “energy efficiency is among the least expensive ways to meet the growing electricity demands of the State” and the American Council for an Energy Efficiency Economy reports that “Energy Efficiency Can Cut Energy Use and Greenhouse Gas Emissions in Half by 2050”

We recommend the following targets for all New Construction Commercial buildings, public and private. State Funded Buildings will lead the way by 2 years. Note that this is a percent target for modeled energy use reductions. These targets have been developed from the AIA 2030 challenge and the originally stated International Code Council energy reduction targets. The International Code Council publishes the International Energy Conservation Code, which is already behind targets, two code cycles after targets were set.

- ***For public buildings, funded at least 25% by State funds***
 - 20% reduction in modeled energy use consumption over the 2018 International Energy Conservation Code for permit applications received between Jan 1 2023 and Dec 31 2024
 - 40% reduction in modeled energy use consumption over the 2018 International Energy Conservation Code for permit applications received between Jan 1 2025 and Dec 31 2026
 - 60% reduction in modeled energy use consumption over the 2018 International Energy Conservation Code for permit applications received between Jan 1 2027 and Dec 31 2028
- ***For all other new covered buildings***
 - 20% reduction in modeled energy use consumption over the 2018 International Energy Conservation Code for permit applications received between Jan 1 2025 and Dec 31 2026
 - 40% reduction in modeled energy use consumption over the 2018 International Energy Conservation Code for permit applications received between Jan 1 2027 and Dec 31 2028
 - 60% reduction in modeled energy use consumption over the 2018 International Energy Conservation Code for permit applications received between Jan 1 2029 and Dec 31 2030

Additionally, there should be energy efficiency performance targets for new “major renovations”.

- Targets
 - A 40% reduction in the building’s average annual energy use; or
 - A 20% reduction in modeled energy use consumption over the current Energy Code

Additions to the Buildings Energy Transition Implementation Task Force

- HB0832 sets a goal of holistic retrofits for low-income households by 2030 with little or no cost. Additionally, it creates a Buildings Energy Transition Implementation Task Force to

develop a plan for the retrofits and create the appropriate programs, policies and incentives to effect the transition to meet that goal.

- We recommend that the Task Force include representation by EJ communities, as well as relevant non-profits. We also recommend that the Task Force coordinate with the Environmental Justice and Sustainability Commission, and Clean Energy Hub.

Additions to Ensure that HB831 is Equivalent to SB528

- On page 9, line 12 and page 7, line 27, SB528 creates a MCEC Climate Catalytic Capital Fund (C3). Add that language in a new section in HB831. *A Climate Catalytic Capital Fund is an innovative funding strategy envisioned in SB528 which will be important to support many of the changes in this bill. We recommend these concepts by incorporating into this bill or other appropriate legislation.*