HB831 – Reducing Greenhouse Gas Emissions – Commercial and Residential Buildings

Testimony before

Environment and Transportation Committee

February 25, 2022

Position: Favorable With Amendments

Mr. Chair, Mr. Vice Chair and members of the committee, my name is Brian Wessner, and I represent the 750+ members of Indivisible Howard County. We are providing written testimony today in ***support of HB831***, to establish building emissions standards for commercial and multifamily residential buildings. Indivisible Howard County is an active member of the Maryland Legislative Coalition (with 30,000+ members). We appreciate the leadership of Delegate Stein in moving this bill.

Solving the climate issues facing Maryland is not a one-size-fits-all effort. With 13% of Maryland's greenhouse gases (GHC) coming directly from the building section, success requires setting aggressive goals for GHG reduction in order to meet or exceed Maryland's goals. With amendments outlined in this testimony, including the priority amendments being put forth by Maryland Climate Partners and the Climate Justice Wing (see attached), HB831 targets these elements of a lasting solution through:

- Setting **building emissions targets** to achieve a 20% reduction in direct building emissions from 2025 levels by January 1, 2030, achieving net-zero direct emissions by January 1, 2040. Proposed amendments, supporting attached amendments put forth by the Maryland Climate Partners and the Climate Justice Wing, include:
  - Add an interim target of at least 40% by 2035 to align with targets defined in SB528. Interim goals provide helpful guidance to MDE.
- Developing **building emissions standards** that provide maximum flexibility to encourage building owners to comply, providing owners with financial incentives recommended by the Building Energy Transition Implementation Task Force, and include an alternative allowing an owner to pay a fee greater than the social cost of GHG set by EPA. Proposed amendments, supporting attached amendments put forth by the Maryland Climate Partners and the Climate Justice Wing, include:
  - For HB831 to be equivalent to SB528, emissions should include both direct and indirect building emissions to account for emissions created by the building's use of fossil fuels. Indirect emissions are included in a building's GHG inventory to create a real-world picture of GHG emissions.

- Creating a **Building Energy Transition Implementation Task Force** to develop complementary policies, programs and incentives to reduce GHC. Incentives include tax credits and subsidies, financial incentives through EmPOWER and other state programs, and low-interest financing to spread up the up-front costs of electrification retrofit upgrades. The task force will develop a plan for funding retrofits to comply with building emissions standards, and delivering the finalized plan to the General Assembly by December 1, 2023. Proposed amendment, supporting attached amendments put forth by the Maryland Climate Partners and the Climate Justice Wing, include:

  - SB528 creates the Climate Catalytic Capital Fund as an funding strategy to support many of the changes in this bill. This concept should be included in HB831.

- Requiring adoption of an **all-electric code for water and space heating** as an above-code modification of the International Energy Conservation Code (IECC). By January 1, 2023 buildings constructed to an above-code certification program will meet energy conservation requirements; new residential and commercial buildings must meet water and space heating demands without fossil fuels and are electric ready for solar, EV charging equipment and building grid interaction. Variances can be issued by local jurisdictions. Proposed amendments, supporting attached amendments put forth by the Maryland Climate Partners and the Climate Justice Wing, include:

  - Change "all Commercial and Residential" to "all buildings" to ensure that all electric includes all buildings, not just covered buildings. The new construction code should apply to ALL new buildings – Commercial, residential, and government buildings – including our schools as models for the rest of society. If we don't apply the all-electric standard to all buildings, we will be forced to retrofit those same new buildings at a later date (not a very economic approach).

  - If a building is funded at least 25% by State funds, require a 20% reduction in modeled energy use consumption over the 2018 IECC code for permit applications received between January 1, 2023 and December 31, 2024, a 40% reduction for applications received between January 1, 2025 and December 31, 2026, and a 60% reduction for applications received between January 1, 2027 and December 31, 2028. These targets will lead all other covered buildings by 2 years.

- Adopting the **2018 International Green Construction Code** by January 1, 2023 and adopt each subsequent version of the code within 18 months after it is issued.

These actions, when taken together, contribute to the framework necessary for achieving Maryland's GHG reduction goals.

Thank you for your consideration of this important legislation.

We respectfully urge a favorable report with amendments.

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Priority Amendments

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 implementing 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 & 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 the 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 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.*