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March 2, 2022

Delegate C.T. Wilson, Chair
Economic Matters Committee
House Office Building, Room 231
Annapolis, Maryland 21401

Re: **FAVORABLE** – HB708 – Comprehensive Climate Solutions

Dear Chairman Wilson and Members of the Committee:

On behalf of the Green & Healthy Homes Initiative, I offer this testimony in support of HB708. GHHI is a member of Energy Efficient Maryland, the Maryland Public Health Association Advisory Committee, and the New York State Climate Action Council Energy Efficiency and Housing Advisory Panel. In addition, I represent GHHI as a member of the EPA Children's Health Protection Advisory Committee and the Maryland Lead Poisoning Prevention Commission. GHHI is dedicated to addressing the social determinants of health and the advancement of racial and health equity through the creation of healthy, safe and energy efficient homes. The Green & Healthy Homes Initiative (GHHI) has been at the frontline of holistic healthy housing for over three decades.

Over its 30-year history, GHHI has developed the holistic energy efficiency, health and housing service delivery model that is implemented in our nationally recognized, Maryland-based direct services program. The model was adopted by the U.S. Department of Housing and Urban Development and is currently being advanced in partner jurisdictions nationally. In addition, GHHI helped to elevate Maryland as a national leader in healthy housing by helping reduce childhood lead poisoning by 99% in the state and helping design over 45 pieces of healthy housing legislation that became law in the State of Maryland and local jurisdictions. By delivering a standard of excellence, GHHI aims to eradicate the negative health impacts of unhealthy housing to ensure better health, economic, and social outcomes for children and families with an emphasis on black and brown and low-income communities. Most recently, GHHI's holistic approach was specifically cited by HUD as model for effective coordination of federal healthy homes and weatherization programs and resources.

Through our own research and evidence-based practice, GHHI has found that a healthy and energy efficient home yields a multitude of energy and non-energy benefits for residents, particularly low-income residents who can benefit the most from such energy efficiency improvements in terms of economic mobility, housing stability and wealth attainment over the long-term. We are deeply committed to advancing racial and health equity, economic mobility and climate resiliency through efficiency standards, electrification and decarbonization for low-income housing, and write in support of HB708 which is critical in the effort to advance energy equity and reduce climate impacts as well as addressing home health and energy efficiency gaps for Maryland's low-income families and communities.

What will HB708 Do?

- Increases the percentage of EmPower funding from 2% to 2.75% by 2028 and changes eligible uses such that by 2024 funds cannot be used for equipment or appliances that use fossil fuels.
- Increases the greenhouse gas reduction target from 40% to 60% by 2032 and developing a plan for net-zero by 2045;
- Requires the Commission on Climate Change to establish a Just Transition Employment and Retraining Working Group to advise the Commission;
- Establishes a Climate Transition and Clean Energy Hub in the Maryland Energy Administration;
- Creates a Maryland Climate Justice Corps to undertake clean energy and climate mitigation projects;
- Establishes goals for the percentage of state funding for greenhouse gas reduction measures to be used to benefit disproportionately affected communities;

Why is HB708 Needed?

- HB708 presents an opportunity to place Maryland in a position of national leadership in advancing racial, health and energy equity and supporting economic mobility by moving the state to a net zero carbon emissions goal while meeting the critical housing and energy needs of Maryland's most vulnerable families and seniors.
- State and local governments around the country are moving toward setting clear, statewide standards for building energy efficiency and electrification as part of broader emissions reductions goals, putting in place innovative funding mechanisms to support these standards and focusing on growing opportunities for employment in the green jobs sector. Maryland can realize these benefits for families, older adults, workers and our environment by passing the targeted commitments in HB708
- Our work providing whole-home interventions has shown us that there is high need across the state, and that providing these services offers tremendous benefits to our most vulnerable families. The energy and non-energy benefits of investing in people's homes can transform

lives for generations. This investment also strengthens our neighborhoods and our workforce

Benefits of providing low-income households with energy efficiency upgrades and building decarbonization

Energy efficiency, weatherization and decarbonization interventions provide not only energy benefits, related to reductions in energy usage and costs, but also non-energy benefits as well. Non-energy benefits are “the wider socio-economic outcomes that arise from energy efficiency improvement, aside from energy savings”. Studies have shown that energy efficiency and weatherization can improve housing conditions relating to thermal comfort, indoor air quality, pest management, and fire safety. Furthermore, household energy efficiency upgrades can spur community benefits such as economic growth, neighborhood revitalization, and resilience. These investments can help to support and stimulate the local economy by providing families and individuals with greater disposable income, which can help alleviate poverty and increase purchasing power while generating more local jobs (Bell 2014; IEA 2014). One study found that between 9 and 13 gross jobs are generated per every \$1 million investment. By targeting energy efficiency upgrades at low-income households with HB708, all Marylanders will benefit.

The Comprehensive Climate Solutions Act also has tangible implications for racial equity. In the US, Black households have the greatest likelihood of residing in older homes with compromised energy systems, aging or ineffective appliances and other assorted structural deficiencies, all of which contribute to making the home energy inefficient (Diana Hernández Yumiko Aratani Yang Jiang, 2014; Diana Hernández, Yang Jiang, Daniel Carrión, Douglas Phillips, and Yumiko Aratani, 2016). Residential segregation, racist housing policies and intentional disinvestment in communities of color, including in Maryland, result in conditions that contribute to poor health and high energy burdens, including inadequately sustained and inefficient ventilation (HVAC), cooling and heating systems, drafts or air leaks, and poor insulation (Ariel Dreihobl and Lauren Ross, 2016; Diana Hernández and Douglas Phillips, 2015; Tony Gerard Reames, 2016; United States Census Bureau, 2015).

Decarbonization slows the pace of climate change which affects the health, safety, and economy of the entire population. As a coastal state, Maryland is on the front lines of many of the project dangers of climate change, and within the state these impacts are projected to affect the most vulnerable populations disproportionately (Maryland 2030 GGRA Plan 2021). Over the next 30 years, the increased flood risk from climate change is modelled to disproportionately affect low-income Black communities in Maryland and across the country (Wing et al. 2022). Furthermore, extreme heat and weather events are projected to have the most severe health impacts (e.g. increased hospitalizations from asthma and heart attacks) in the low-income and minority population centers of the state such as Baltimore City (Maryland Climate and Health Profile Report 2016).

Buildings are significant emitters of greenhouse gases that contribute to global climate change as well as particulates that have significant effects on local health. In 2017, buildings accounted for 18% of direct greenhouse gas emissions in Maryland (The 2030 GGRA Plan 2021). Numerous studies have demonstrated a link between particulate (PM_{2.5}) levels and premature loss of life. Decarbonization is an essential step to reducing this burden because both nationally and within Maryland, gas emissions have passed coal as the energy source with the largest impact on human health from pollutant emissions (Buonocore et al. 2021). Because buildings emit pollution where people live and work, humans are acutely affected. In a major 2012 paper, researchers looked at 35 years of data collected across six US cities and found a statistically significant 14% increase in all-cause mortality for a 10-µg/m³ annual increase in local PM_{2.5} measures, confirming the findings of previous studies (Lepeule et al. 2012; Dockery et al. 1993; Laden et al. 2006). Thankfully, researchers find that community health improves quickly with reductions in PM_{2.5}. On the other hand, energy infrastructure is often a long-term investment for both buildings and for municipalities. Beginning the process of decarbonization immediately is the best way to reduce total harm caused to residents' health.

Finally, recent studies have highlighted the health impacts of indoor air pollution from gas appliances. A team of researchers at Stanford University found that stoves emit significantly more methane emissions than previously understood because most of their emissions occur when in their steady state off position (Lebel et al 2022). Furthermore, families who do not use their range hoods or who have poor ventilation can surpass the 1-h national standard of acute NO₂ (100 ppb) within a few minutes of stove usage, particularly in smaller kitchens. Because many people live in small, older housing, and most appliances remain in use for long periods of time, both the contributions to greenhouse gas emissions and unhealthy levels of indoor air pollution point to a need to prioritize gas-free appliances in most buildings. Preparing buildings for a gas-free operation promotes improvements in indoor and outdoor air quality, as well as allowing a transition off the gas infrastructure which will reduce costs both for energy and gas system maintenance.

Revisions to HB708

GHHI suggests that the Committee consider the following revisions to improve HB708 and to better align with SB528 and climate goals:

Greenhouse gas reduction goals:

- Page 7, line 5-6 - Overall GHG Goal - 60% by 2032
 - Amendment - 60% by 2030 to line up with Senate (for consistency)

EmPOWER:

- Page 25 line 36 - align dates for EmPOWER targets with SB528.
 - Amend to
 - 2.25% PER YEAR IN 2024 AND 2025;
 - 2.5% IN 2026;
 - 2.75% PER YEAR IN 2027 AND THEREAFTER.

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Maryland can realize benefits for families, older adults, workers and our environment by setting climate related emissions reduction goals and enacting the suite of innovative policies within the Comprehensive Climate Solutions legislation. The Climate Justice Corps Program will give low income communities, which are disproportionately impacted by climate change, the opportunity for residents to be a part of the green jobs economy while mitigating climate change impacts locally. We request a favorable report on HB708.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Ruth Ann Norton', with a long, sweeping underline.

Ruth Ann Norton
President and CEO