



Committee: Economics Matters Committee  
Testimony in SUPPORT of Energy Savings Act 2023 SB689  
*Position: Favorable*  
Hearing Date: February 28, 2023

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

Chesapeake Physicians for Social Responsibility is a statewide organization of over 940 Physicians and other health professionals and supporters that addresses the existential public health threats to life on this planet: the climate crisis, nuclear weapons and the issues of pollution and its toxic effects on health. We advocate for public policy that addresses these threats based on evidence and through the lens of racial justice and equity.

I am writing to testify in support of the Energy Savings Act 2023, which will play a crucial role in updating EmPower and will help to reduce greenhouse gas emissions, promoting better health outcomes by switching away from fossil fuel appliances, decreasing risks from gas stoves, and benefiting lower-income households in the state.

As we are all aware, the effects of climate change are becoming increasingly severe, with extreme weather events, rising sea levels and more frequent natural disasters affecting communities across the country. The recent UN report on climate change highlights the urgent need for action to reduce greenhouse gas emissions to help mitigate the worst effects of climate change.

The Energy Savings Act 2023 HB904 offers an important opportunity to take action and reduce our state's carbon footprint while also promoting energy efficiency and cost savings for households and businesses. HB904's purpose is to update and expand access to the EmPOWER program.

The Empower program started in 2008 to support energy efficiency programs in Maryland. This has included energy use assessments, rebates for energy efficient appliances and funding for low and moderate income residents to install equipment to improve energy efficiency.

The current program has been successful in improving energy efficiency and cost savings but needs to move further towards decreasing the use of fossil fuels and shift to looking not just at energy efficiency but shifting to greenhouse gas reduction goals to help mitigate the effects of global warming and climate change. Greenhouse gases are a major driver of climate change. The current EmPower program provides incentives for fossil fuel appliances and home heating. We need to change these incentives to electric and renewable alternatives rather than perpetuating a gas infrastructure that is not healthy for the planet or individual home owners

This bill will set goals to cut climate pollution with incentives for utilities to reach these goals and penalties, if they do not. It will create rebates for electric appliances and furnaces rather than gas ones. This will also bring us into harmony with the federal Inflation Reduction Act, so people will not have to choose between federal and state rebates and credits, as the federal program is only for electric appliances.

The current program is severely underutilized by low income residents. Currently only 17.5% of residential spending is used for low income residents. Low income households pay almost twice as much into the EmPower program as they receive. The Energy Savings Act will set goals for low and moderate income residents use of the program and coordinates benefits with the federal Inflation Reduction Act. It also sets up programs for community outreach to assist families in joining the program.

Natural gas is an odorless, gaseous mixture of hydrocarbons and is about 70-90% methane (CH<sub>4</sub>). It accounts for about 30% of the energy used in the United States. Unburned Methane is 56 times more potent than CO<sub>2</sub> in global warming potential over a 20-year period (United Nations Climate Change, 2022). Just from gas stoves alone, using a 20-year timeframe for methane, annual methane emissions from all gas stoves in U.S. homes have a climate impact comparable to the annual carbon dioxide emissions of 500,000 cars.

Gas furnaces, water heaters and particularly gas stoves are a significant cause of indoor air pollution with significant health effects. As a physician I am concerned about the health impacts from the combustion of fossil fuels in the home. 76% of methane emissions in the kitchen occur when the stove is off. When the stove is on the combustion of natural gas creates nitrogen oxides, (NO<sub>2</sub>), carbon monoxide and particulate matter which are all health harming pollutants released into the home.

NO<sub>2</sub> concentrations are associated with irritation of the airways and wheezing. Indoor exposure to emissions from gas stoves can worsen asthma symptoms, cause wheezing and result in decreased lung function according to the American Lung Association July 2022 report . A recent study Dec. 2022 reported that 12.7% of current childhood asthma in the United States is attributable to children exposed to gas stoves. An unvented stove in the house has a similar effect of tobacco smoke in the home . A 2013 meta-analysis study of 26 years of research found that children living in homes with gas stoves are 42% more likely to experience symptoms associated with asthma and have an increased lifetime risk of asthma. Of note low income communities may be disproportionately affected due to living in areas with more pollution due to their location near traffic, incinerators or factories exacerbating their risk.

The risks from gas stoves are being increasingly recognized by healthcare groups. In June of last year the American Medical Association passed a resolution to educate the public and health care professionals about the risks of gas stoves. In November 2022, the American Public Health Association noted that gas stove emissions are a public health concern. Exposure to nitrogen dioxide increases the risk of illness in children, older adults and people with underlying health conditions.

For the immediate and long-term health of Marylanders and the health of our planet it is critical that we begin to transition away from fossil fuels and embrace healthier choices in energy. This bill is a great step in the right direction. It I urge you to support its passage.

Respectfully submitted by:

Elise Riley, MD FACP

Chesapeake Physicians for Social Responsibility

Elise.c.riley@gmail.com

## References:

American Lung Association report, "Literature Review on the Impacts of Residential Combustion," July 2022, <https://www.lung.org/media/press-releases/new-report-details-health-and-environmental->

AMA policy, June 2022, "Informing Physicians, Health Care Providers, and the Public that Cooking with a Gas Stove Increases Household Air Pollution and the Risk of Childhood Asthma" D-135.964 June 2022 <https://policysearch.ama-assn.org/policyfinder/detail/gas%20stove?uri=%2FAMADoc%2Fdirectives.xml-D-135.964.xml>

APHA policy, "Gas Stove Emissions Are a Public Health Concern: Exposure to Indoor Nitrogen Dioxide Increases Risk of Illness in Children, Older Adults, and People with Underlying Health Conditions" Policy Date: November 8, 2022 Policy Number: 20225 [https://www.apha.org/-/media/Files/PDF/Policy/2022/Gas Stoves Public Health Concern 20225.ashx](https://www.apha.org/-/media/Files/PDF/Policy/2022/Gas_Stoves_Public_Health_Concern_20225.ashx)

Eric Lebel, Colin Finnegan, Zutao Ouyang, "Methane and NO<sub>2</sub> emissions from natural gas stoves, cooktops and ovens in residential homes", *Environ. Sci. Technol.* 2022, 56, 4, 2529–2539 <https://pubs.acs.org/doi/10.1021/acs.est.1c04707>

Talor Gruenwald, et al., "Population attributable fraction of gas stoves and childhood asthma in the United States", *Int J Environ Res Public Health* 2023 Jan; 20(1): 75. Published online 2022 Dec 21. doi: [10.3390/ijerph20010075](https://doi.org/10.3390/ijerph20010075) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9819315>

Weiwei Lin, Bert Brunekreef, and Ulrike Gehring, "Meta-analysis of the effects of indoor nitrogen dioxide and gas cooking on asthma and wheeze in children," *International Journal of Epidemiology*, Volume 42, Issue 6, (December 2013): 1724–1737, <https://doi.org/10.1093/ije/dyt150>.

UN Policy Report on Climate Change, April 4, 2022, <https://www.un.org> Report April 4, 2022