

## Testimony in favor of SB1023 The Better Buildings Act of 2024

Daniel Helfrich  
4420 Manor Lane  
Ellicott City, Maryland  
Howard County District 9A Homeowner  
Retired Mechanical Systems Engineer

March 1, 2024

For several years now, my wife Mary and I have been incrementally renovating our modest rancher located on a rural residential lane in Ellicott City. One of the key improvements was adding a high performance electric heat pump for both heating and cooling the house. Previously we had been heating with a basement woodstove and electric baseboard heaters. Cooling was only possible via a whole house fan or window air conditioners. As one may imagine, we were struggling with maintaining a comfortable interior for quite a few years. The high performance Mitsubishi heat pump we installed does it all now, and performs amazingly, without any backup equipment needed, and without any need for fossil fuel.

Our new heat pump is built around a very modern variable speed compressor system quite unlike the compressors found in the heat pumps I have had in all my prior homes heated with electric-only systems (all 5 of them). We require no backup electric resistance heating elements inside the house because we simply will never need them. Our new heat pump has proven to be fully capable of heating our home with outdoor temperatures in the single digits, and is rated to work well even in negative temperatures. For example, in December of 2022, when we had a 5 deg F nighttime low, it delivered all the heat we needed all night long. I read the temperature coming out of the indoor air handlers and it was over 100 degrees, despite the extremely cold air outdoors.

My decision to take the electric heat pump route, and forego a fossil fuel system like propane or oil for heating, was mostly practical, but also morally right. To install a propane system—we don't have gas service on our lane—would have been a big investment in the fuel storage and supply equipment. Further, I would have had to tear up our walls and floors and use up valuable volume in our house, and headroom in the basement, running ductwork and installing a furnace. On top of all that, I would have to worry about the price swings of fossil fuels. Even without a state grant or BGE-sponsored price reduction, the choice to go purely electric wasn't even worth a detailed cost comparison. And the system went in without any drastic changes needed in my 50 yr old electric panel. As for the moral aspect of our decision, as the saying goes, "When you find yourself in a hole, stop digging."

In summary, I am very glad that our modern electric heat pump has for almost two years now fully met our expectations for providing us a very comfortable home year round. Having recently learned of the pollution dangers of heating and cooking with propane and natural gas, I am even more satisfied with my decision to avoid investing in fossil fuel equipment in my home.

**Anyone who claims otherwise is not to be believed—modern electric heat pumps are fully adequate for all of Maryland's weather, as well as being healthier, less expensive to own and operate, and energy efficient.** I firmly believe that the State of Maryland will be moving in the right direction by passage of the Better Building Act of 2024.

Sincerely,  
Daniel Helfrich