



**Olivia Bartlett, DoTheMostGood Maryland Team**

**Committee:** Economic Matters

**Testimony on:** HB0040 – Maryland Energy Administration Study on Geothermal Heating and Cooling Systems and Geothermal Energy Workgroup

**Position:** Favorable

**Hearing Date:** January 26, 2021

**Bill Contact:** Delegate Lorig Charkoudian

DoTheMostGood (DTMG) is a progressive grass-roots organization with more than 2000 members who live in a wide range of communities in Montgomery and Frederick Counties, from Bethesda near the DC line north to Frederick and from Potomac east to Silver Spring and Olney. DTMG supports legislation and activities that keep its members healthy and safe in a clean environment, that support and uplift all members of its communities, and that promote equity across all of our diverse communities. DTMG strongly supports HB0040 because it will move Maryland in the direction of clean renewable energy to address the existential threat of climate change.

Maryland is already experiencing the effects of climate change due to global warming. We have experienced hotter summers, extreme precipitation events, and rising sea level which is threatening communities and farms along Maryland's long vulnerable coastline. The state must move aggressively to net zero greenhouse gas (GHG) emissions by 2045 to avoid the worst impacts of global warming. Residential and commercial buildings are, together, a large source of GHG emissions, and heating and cooling is the largest contributor of the GHG from buildings. The solution is to electrify buildings as quickly and efficiently as possible.

Geothermal heating and cooling can play a big part in achieving that goal, but it is currently underutilized in Maryland. HB0040 will require the Maryland Energy Administration (MEA) to conduct a technical study of geothermal heating and cooling systems, establish a Geothermal Energy Workgroup, and direct the MEA, in consultation with the Workgroup, to develop recommendations for deployment of geothermal energy across Maryland, also supporting the development of new good green jobs.

Heat pump technology transfers heat from a source to a sink. We are most familiar with air heat pumps that use differences between indoor and outdoor air temperature to heat or cool our homes. In contrast, a geothermal heat pump uses the constant temperature of the ground. Because the ground temperature doesn't change, it is a much more efficient heat exchanger than the air and therefore much less expensive to run. Accessing geothermal energy through ground source heat pumps is an efficient way to heat and cool buildings, saving energy and providing a path away from natural gas.

Geothermal heating and cooling systems have other benefits as well. Geothermal heat pumps are healthier than gas heating because there is no combustion of fossil fuels, which results in better indoor air quality. Since geothermal heating and cooling systems include pipelines through the ground for the heat exchanger component of the system, expanded use of geothermal heat pumps can also provide new jobs for pipefitters and other workers as we shift away from using oil and gas.

Unlike other states where geothermal technology has been deployed more widely, it is relatively rare in Maryland. A great first step is to conduct the studies proposed in HB0040 to determine the status and potential of geothermal heating and cooling systems in Maryland and to develop recommendations for incentivizing greater deployment of geothermal systems.

Therefore, DTMG strongly supports HB0057 and urges a **FAVORABLE** report on this bill.

Respectfully submitted,

Olivia Bartlett  
Co-Lead, DoTheMostGood Maryland Team  
[oliviabartlett@verizon.net](mailto:oliviabartlett@verizon.net)  
240-751-5599