



THE MARYLAND HOUSE OF DELEGATES
ANNAPOLIS, MARYLAND 21401

HB 1007 —RENEWABLE ENERGY PORTFOLIO STANDARD AND GEOTHERMAL
HEATING AND COOLING SYSTEMS

TESTIMONY OF DELEGATE LORIG CHARKOUDIAN

FEBRUARY 25, 2021

Chair Davis, Vice Chair Dumais, and Members of the Economic Matters Committee:

Geothermal heat pumps (GHP), also known as ground source heat pumps, use the constant temperature of the Earth to provide clean, renewable energy. Just below the surface of the Earth, the ground is a constant temperature of approximately 54° Fahrenheit. These heat pumps take advantage of the constant temperature of the Earth, and using mostly water, move heat to and from the ground through a series of pipes. As the water moves through the pipes, it is either heated or cooled by the ground. The newly cooled or heated water then returns to the heat pump and pushes out a comfortable air temperature. The beauty of this process is that it requires a small amount of electricity. For each unit of electricity used in operation, the heat pump can deliver five times as much energy from the ground.

The benefits of geothermal heat pumps are many, including:

- low operating cost;
- investment that can be recouped in two to ten years because of lower utility bills;
- level seasonal electric demand, lightening the load on the electric grid during peak summer demand thus reducing the need for electricity suppliers to tap into additional electricity sources that are worse for the environment;
- long life expectancy as the systems have few moving parts that are protected indoors, providing durability and reliability; and,
- low environmental impact.

HB 1007 establishes a carve out within the RPS for Geothermal Renewable Energy Credits (GRECs). This will incentivize greater deployment of geothermal heating and cooling in Maryland.

An important feature of this particular REC carve out, is incorporating equity into the carve out itself. Within the GRC carveout, 25% of REC's would have to be derived from systems installed in low or moderate-income housing and/or institutions that primarily serve low and moderate-income individuals. It is imperative that we ensure equity amongst the deployment of this technology that would benefit low and moderate-income individuals and communities that

have been most impacted by environmental injustice. This also ensures that the health benefits from the improved indoor air quality associated with geothermal, will benefit low income individuals who suffer most from environmental health issues.

HB 1007 also includes provisions to ensure that as the geothermal industry grows in Maryland, it grows with good jobs, with family sustaining wages, and with career advancement, including apprenticeship programs.

The bill requires for large systems (over 360,000 BTU capacity) to be eligible to be included in the REC carve out, must to use installation companies with the following labor standards:

- Family-sustaining wages;
- Employer-provided Health Care With Affordable Deductibles And Copays;
- Career Advancement Training (to the extent that 10% of employees on specific installations are apprentices from state or federally registered programs)
- Fair Scheduling;
- Employer-paid Workers' Compensation And Unemployment Insurance;
- A Retirement Plan;
- Paid Time Off; And
- The Right To Bargain Collectively For Wages And Benefits.

HB1007 will create and maintain good jobs for green energy.

Maryland currently offers some rebates for commercial and residential installation of geothermal heat pumps. In addition to strengthening these incentives in the RPS, HB 1007 would also require the Maryland Energy Administration (MEA) to conduct a comprehensive technical study on the status of geothermal heating and cooling systems in the State, and the potential impact of expanding and incentivizing the use of those systems throughout Maryland.

The legislation would also establish the Geothermal Energy Workgroup. The membership of the Workgroup would include representatives from the General Assembly, the Administration, environmental advocacy and justice organizations, geothermal industry, labor, and the State's electrical infrastructure.

The Workgroup's charter would be to:

- study the status and impact of increasing the use of geothermal heating/cooling systems in Maryland;
- examine methods for growing the industry, with a focus on increasing its use in environmental justice communities — communities where multiple factors, including environmental and socioeconomic stressors, affect both health and the environment and contribute to persistent environmental health disparities;
- examine methods for ensuring jobs created in this industry offer benefits and family-sustaining wages; and,
- develop recommendations for legislation that will encourage and incentivize the use of geothermal heating/cooling systems in the State.

The MEA would report the results of the study, findings and recommendations from the Workgroup, and incentive recommendations to the General Assembly by December 1, 2021.

I respectfully request a favorable report on HB1007.