Committee: Economic Matters
Testimony: Working for Accessible Renewable Maryland Thermal Heat (WARMTH) Act
Position: Favorable
Hearing Date: February 22, 2024

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On behalf of the Chesapeake Climate Action Network Action Fund, we stand in strong support of the Working for Accessible Renewable Maryland Thermal Heat (WARMTH) Act (HB 0397/SB 0570), which aims to establish pilot thermal energy network systems in Maryland. This bill presents a proactive approach to addressing our energy needs while promoting sustainability and environmental responsibility.

The proposal outlined in this bill requires each gas company to develop a plan for a pilot thermal energy network system within a specified timeframe. Additionally, it mandates that gas companies submit proposals to the Public Service Commission for approval, providing a structured framework for the implementation of these systems.

BACKGROUND

Geothermal heat pumps offer an innovative solution for heating and cooling buildings by harnessing the stable temperatures found beneath the earth's surface. While air temperatures above ground fluctuate throughout the day and across seasons, the earth's temperature just 10 feet below remains consistently between 50°F and 60°F. Leveraging this stable thermal resource, geothermal heat pumps transfer heat from the ground or water into buildings during colder months and reverse the process to cool buildings during warmer months.[1]

According to the Environmental Protection Agency (EPA), geothermal ground source heat pump systems are among the most energy-efficient, environmentally friendly, and cost-effective ways to condition indoor spaces. Approximately 70 percent of the energy used by these systems is derived from renewable sources in the ground. Compared to conventional heating and cooling methods, high-efficiency geothermal systems boast impressive efficiency gains. On average,

[1] US Energy Information Administration, Geothermal explained - geothermal heat pumps. https://www.eia.gov/energyexplained/geothermal/geothermal-heat-pumps.php

they are 48 percent more efficient than gas furnaces, 75 percent more efficient than oil furnaces, and 43 percent more efficient when cooling.[2]

One of the key advantages of geothermal heat pump systems is their minimal environmental impact.[3] Since they do not burn fossil fuels on-site for heating, they produce significantly fewer greenhouse gas emissions compared to traditional furnaces. Additionally, they eliminate the risk of carbon monoxide poisoning within buildings. Even when factoring in emissions from the power plants that supply electricity to operate these systems, total emissions remain substantially lower than those associated with conventional heating and cooling methods.

IMPACT TO UNDERSERVED COMMUNITIES

One of the key strengths of this bill is its inclusivity. It allows municipal corporations, counties, and community organizations to nominate neighborhoods for consideration as part of a pilot system. This collaborative approach ensures that diverse communities across Maryland have the opportunity to benefit from the advantages of thermal energy networks.

Furthermore, the bill establishes clear requirements and authorizations for the development and implementation of these systems, providing a roadmap for successful execution. It also mandates that the Public Service Commission make determinations regarding the permanent establishment of pilot systems, ensuring accountability and transparency in the decision-making process.

Importantly, this bill allocates funding to cover certain costs associated with the pilot systems, demonstrating a commitment to supporting innovation in sustainable energy solutions. Additionally, it requires coordination between the Maryland Energy Administration and the Department of Housing and Community Development to provide necessary services and funding, further enhancing the effectiveness of these initiatives.

Moreover, by involving the Maryland Environmental Service in issuing procurements for certain projects and establishing employment requirements for designated projects, this bill not only promotes environmental stewardship but also creates opportunities for economic growth and job creation in our state. This is achieved through the "Community Benefit Agreement" provision, which is crucial as it defines an agreement applicable to the construction of any thermal energy network system and accompanying residential electrification, and it ensures the following:

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[2] Space Conditioning: The Next Frontier, the Potential of Advanced Residential Space Conditioning Technologies for Reducing Pollution and Saving Consumers Money

[3] Mock, J. E., Tester, J. W., & Wright, P. M. (1997). Geothermal energy from the earth: its potential impact as an environmentally sustainable resource. Annual review of Energy and the Environment, 22(1), 305-356.

- Increased opportunities for local businesses, including small, minority, women-owned, and veteran-owned businesses within the clean energy industry. This not only fosters economic growth but also encourages diversity and equity within the sector.
- Timely, safe, and efficient completion of projects by facilitating a steady supply of highly skilled craft workers. By mandating that these workers are paid not less than the prevailing wage rate, promoting fair compensation and stability in the workforce.
- Emphasizes career training opportunities in the manufacturing, maintenance, and construction industries for local residents, veterans, women, minorities, and formerly incarcerated individuals.
- Underscores the importance of local hiring and the hiring of historically disadvantaged groups, reflecting a 21st-century labor-management approach based on cooperation, harmony, and partnership.
- Encourages the use of locally, sustainably, and domestically manufactured construction materials and components whenever possible. This not only supports local economies but also promotes environmental sustainability.

In summary, House Bill 397 represents a significant step forward in advancing the adoption of thermal energy network systems in Maryland. By supporting this legislation, we have the opportunity to embrace cleaner and more efficient energy solutions, strengthen our communities, and protect our environment for future generations.

Thank you for considering my testimony in support of this important bill. I urge you to vote favorably on House Bill 397 and help pave the way for a more sustainable energy future in Maryland.

Sincerely,

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