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BILL NO.:	House Bill 397 - Public Utilities – Thermal Energy Network Systems – Authorization and Establishment (Working for Accessible Renewable Maryland Thermal Heat (WARMTH) Act)
COMMITTEE:	Economic Matters Committee
HEARING DATE:	February 22, 2023
SPONSOR:	Delegate Charkoudian
POSITION:	Favorable

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The Office of People's Counsel ("OPC") supports House Bill 397 to establish a pilot thermal energy network system. Networked geothermal is an innovative technology that could help Maryland achieve its decarbonization goals while bringing benefits to customers, utilities, and workers.

HB 397 would require large gas companies[1] to develop a plan for a pilot networked geothermal system. Pilots would last for two years and gather information to assess how networked geothermal systems may advance climate goals, lower the costs of electrification, and avoid gas infrastructure costs. The bill will allow the Maryland Public Service Commission ("PSC"), and the gas companies it regulates, to gather essential information on the viability and regulation of networked geothermal systems.

Networked geothermal systems may be an important part of the mix of technologies that together will be necessary to meet the State's greenhouse gas reduction goals. The Climate Solutions Now Act of 2022 establishes a goal of 60 percent GHG

[1] OPC supports the forthcoming amendment that would limit applicability to large gas companies.

emissions reductions by 2031 and net-zero GHG emissions by 2045. Emissions from the building sector—driven by emissions for space heating, water heating, cooking, and industrial heating processes—account for 16% of Maryland's GHG emissions.[2] The Maryland Department of the Environment's recently released Climate Pollution Reduction Plan recommends new policies for decarbonizing Maryland's building sector,[3] with the aim to "transition almost all of Maryland's fuel-burning buildings to be all-electric by 2045. . . ."[4]

Networked geothermal could help the State meet its GHG goals several ways. First, it would reduce fossil fuel consumption by obviating the need to use natural gas for building and water heat. Second, geothermal systems are highly efficient—more efficient even than modern electric heat pumps for heating homes,[5] which themselves are 2.2-4.5 times more efficient than efficient gas furnaces.[6] Third, geothermal systems may be especially effective at helping manage energy loads, reducing or delaying the need for new electric infrastructure.

Networked geothermal systems are already used in some settings to efficiently heat and cool buildings on college campuses and other settings. Massachusetts and New York are both running pilot programs to evaluate their potential to efficiently heat and cool residential and commercial buildings in neighborhoods. HB 397 would create a similar pilot program for Maryland's gas utilities.

HB 397 contains important consumer protection measures. It ensures that customers opting-in to the pilot will not have to pay out-of-pocket for any necessary home electrification—including appliance purchases—or weatherization projects. It prohibits non-pilot customers from subsidizing home appliance costs for pilot participants through rates; instead, it directs the Maryland Energy Administration to coordinate

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[2] Md Dep't. of Env't, *Maryland's Climate Pollution Reduction Plan* (Dec. 2023) at 34.
[3] *Id.* at 39-40 (proposing a"Zero Emission Heating Equipment Standard" and "Clean Heat Standard").
[4] *Id.* at 40.
[5] U.S. Dep't of Energy, *Geothermal Heating & Cooling*, https://www.energy.gov/eere/geothermal/geothermal-heating-cooling ("Geothermal heat pumps can reduce energy consumption and emissions up to 44% compared to air-source heat pumps and 72% compared to standard air-conditioning equipment.").
[6] Claire McKenna, Amar Shah, and Mark Silberg, *It's Time to Incentivize Residential Heat Pumps*, RMI (June 8, 2020), https://rmi.org/its-time-to-incentivize-residential-heat-pumps/#:~:text=The%20United%20States%20has%20made,fossil%20fuel%20use%20in%20building.

funding sources to pay for necessary customer appliances. We understand that a forthcoming amendment will further protect pilot participants by ensuring that they are not responsible for any customer-side costs resulting from the decommissioning or discontinuation of a pilot. We support that amendment.

Pilot programs provide an important opportunity to assess technological innovations that could result in savings for utility customers while advancing State policy goals. Without requiring innovative pilots, utilities may be prone to stagnation and the forces of inertia that make it easy to continue relying on conventional technologies. While the costs of pilot programs are borne by all ratepayers, a well-constructed pilot should benefit all customers. Further, HB 397 contains important cost containment measures. The pilot scope is limited to 1-2 projects per utility and provides that the PSC can only approve a plan if it is in the best interest of the public and ratepayers. Maryland needs innovative approaches to facilitate a cost-effective transition away from reliance on fossil-gas. OPC supports limited pilot programs, like the WARMTH Act, that have potential to benefit customers and help the State achieve its climate goals.

Recommendation: OPC requests a favorable Committee report on HB 397.

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