From: Andrew Iliff <andrew.iliff@heet.org>
Sent: Friday, February 28, 2025 8:21 PM
To: PUC - Clerk <PUC.Clerk@vermont.gov>
Cc: Zeyneb Magavi <zeyneb.magavi@heet.org>
Subject: Case No. 24-3460-INV

Dear Holly Anderson,

Please find attached HEET's letter of comment on Case No. 24-3460-INV on Thermal Energy Networks.

I look forward to learning more about Vermont and the PUC's work in this area, and we are grateful for the opportunity to comment.

Sincerely,

Andrew

--

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HEET | 50 Milk St, Boston MA 02109
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heet

Holly R. Anderson
Clerk of the Commission
112 State Street
Montpelier, VT 05620-2701

Case No. 24-3460-INV
Public Utility Commission investigation into thermal energy exchange networks pursuant to Act 142 of 2024

Dear Chair McNamara and Commissioners Cheney and Allen,

HEET is a Massachusetts nonprofit that, in 2017, proposed and then popularized the idea of gas utilities moving from gas infrastructure to networked geothermal heat pumps (also known as Thermal Energy Networks, TENs, or geothermal networks). We are independent and do not accept funds from any industry we impact, including the gas and geothermal industries. We are committed to driving forward a data-based, practical, and people-centered approach to our future energy system, one that addresses the priorities of the state or community - which often include safety, reliability, affordability, security, emissions, resilience, and more.

We write to recommend that the Commission propose legislation allowing regulated utilities to implement TENs in Vermont by authorizing utilities to retail non-combusting thermal energy to customers. This recommendation is based on HEET's experience working with utilities and other stakeholders in Massachusetts and other states to develop TENs. TENs offer a unique opportunity to leverage overlooked thermal resources like wastewater, and to improve the resilience and efficiency of Vermont's energy infrastructure.

Regulated utilities are ideally positioned to lead implementation of TENs, due to their experience implementing neighborhood-scale energy infrastructure and their capacity for cost recovery. In addition, gas utility workforces offer another cost-saving advantage in TENs deployment. Gas workers are already skilled in deploying and maintaining the sort of HDPE pipes used in TENs, requiring minimal retraining - as demonstrated by a recent training in Vermont conducted by the International Ground Source Heat Pump Association. Vermont gas workers can work on next-generation electrification technology while also maintaining the safety and integrity of existing gas infrastructure.

HEET worked closely with Eversource Gas on the first-in-the-nation utility-owned geothermal energy network in Framingham, MA, which was commissioned in June 2024. In 2024, HEET was awarded a Department of Energy grant for the construction of an expansion of the Framingham loop in order to demonstrate the scalability, increased efficiency and declining marginal costs of thermal energy networks at scale. Our expansion design is projected to double the load for half the cost of the first install in part by leveraging the research and learning we led on the first project. HEET is also closely involved with proposed thermal networks in the Dorchester neighborhood of Boston, and in the Merrimack Valley, as well as engaging with projects around the country in different stages of planning

and implementation. We are committed to data-based and science-informed design, implementation, and policy.

In summary, HEET recommends that the PUC enable gas utilities to pursue TENs deployment, including by permitting the merging of rate bases, in order to accelerate the the declining marginal costs of TENs and improved customer affordability, resilience, and reliability that will accrue through industry development and scaling.

Sincerely,

Zeyneb Magavi