

To Senate Committee on Energy and Environment Support for SB 1134 – Thermal Energy Networks

March 19, 2025

Chair Sollman, Vice-chair Brock Smith and members of the committee,

My name is Dr. Pat DeLaquil. I am an energy system modeler and climate policy analyst, and I organize with **MCAT** (Mobilizing Climate Action Together), a community of volunteers working on advancing a healthy climate and a green economy for future generations.

I am speaking today in support of SB 1134, which directs Oregon's Public Utilities Commission to establish a pilot program for natural gas companies, which would allow them to develop utility-scale pilot projects to install Thermal Energy Networks (TENs) for their customers.

Thermal energy networks connect commercial and residential buildings through pipes that circulate water at roughly 55 degrees Fahrenheit year-round to very efficiently provide heating and cooling via ground-source heat pumps. The proposed pilot program will allow the companies and the commission to evaluate the use and effectiveness of TENs. Simultaneously, the utilities, their workforce and their customers would gain experience with this technology while PUC would learn how to integrate these projects into their regulatory processes.

The interim results from the Oregon Energy Strategy show that our state's most cost-effective transition to clean energy sources involves a steady decline in natural gas use until a residual 10% of direct uses remain that are either converted to some form of clean gas, or used in peaking plants that only operate a few days per year, when peak loads and low solar and wind resources converge. The results indicate that the cost to society for slowing the pace of building electrification is \$17B in NPV between now and 2050.

This result should be a wake-up call for our gas utilities that their core business model needs to adapt. Thermal energy networks are a way that our gas utilities can **not only** transition (and retain) part of their existing customer base, **but also** utilize many of the company's technical capabilities and skilled workforce. Finally, thermal energy networks have the potential, especially in urban and industrial settings to take advantage of large waste heat sources.

Thermal energy networks are a lower risk alternative the decarbonization pathway involving RNG, hydrogen, and synthetic methane that our gas utilities are currently promoting. While there will be markets for hydrogen and synthetic fuels, using them for home heating is never going to be cost-effective.

I urge you to support of SB 1134. I understand that NW Natural is exploring Vancouver test sites under a similar WA law and are supporting this bill.

Dr. Pat DeLaquil
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