



BERKSHIRE ENVIRONMENTAL ACTION TEAM
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Protecting the environment for wildlife in support of the natural world that sustains us all.

Network Geothermal

What is network geothermal?

Network geothermal uses the earth's naturally steady underground temperature (about 55°F year-round) to heat and cool multiple buildings. Instead of burning fuel, it transfers heat between the ground and buildings using underground pipes and highly efficient electric heat pumps. Heat pumps don't create heat—they move it. This makes them much more efficient than heating systems that burn fuel to generate heat.

Unlike a traditional geothermal system that serves a single building, network geothermal connects multiple homes and buildings to a shared underground pipe network.

Because it transfers heat rather than generating it through combustion, network geothermal provides heating and cooling without burning natural gas.

How does it work?

A network geothermal system circulates water through underground pipes connected to nearby buildings.

1. Water circulates through underground pipes beneath a neighborhood.
2. In winter, the water absorbs heat from the ground and carries it to connected buildings.
3. Heat pumps inside each building transfer that heat into the building's heating system.
4. In summer, the process reverses, moving heat from buildings back into the cooler ground.

Where is it being used?

Network geothermal is already being used in Massachusetts.

Eversource launched the nation's first utility-owned network geothermal system in Framingham, MA in

2024. The project serves homes, apartments, schools, and municipal buildings, demonstrating that utilities can provide heating and cooling through shared geothermal infrastructure.

Why does it matter?

- Reduce reliance on natural gas
- Lower greenhouse gas emissions
- Improve local air quality
- Provide efficient heating and cooling
- Support local jobs installing and maintaining geothermal systems
- Give utilities another way to provide heating and cooling without expanding natural gas infrastructure

Why it matters for the Berkshires

Eversource's parent company, Avangrid, is also developing network geothermal pilot projects in New York. BEAT encourages Berkshire Gas to explore network geothermal pilot projects in Berkshire County, building on similar utility projects already underway in Massachusetts and New York.

Expanding network geothermal could:

- Reduce dependence on natural gas
- Help meet Massachusetts climate goals
- Improve air quality, particularly in Environmental Justice communities
- Provide customers with another option for heating and cooling

Learn more about Network Geothermal and BEAT's clean energy work:

www.thebeatnews.org

