

Geothermal Advantages Unearthed

The advantages of geothermal heating and cooling are impressive. These flexible, self-contained systems are ideal for homes or businesses, and can be used worldwide.

Saves Money – a geothermal system can cut your heating and cooling costs by more than 50%. Plus many systems allow you to supplement your domestic hot water heater for even more money and energy savings.

Saves Energy – geothermal systems are super-efficient, generating far more heat energy than they consume.

Environmentally Friendly – geothermal systems use a renewable energy source – the heat generated by the sun warming the earth, plus, non-ozone depleting refrigerants are used to help protect the environment.

Quiet Operation – there is no exposed, noisy outside unit with a geothermal system, so there is no loud fan or noise to disturb you or the neighbors.

Low Maintenance – fewer mechanical components mean less maintenance and more reliability.

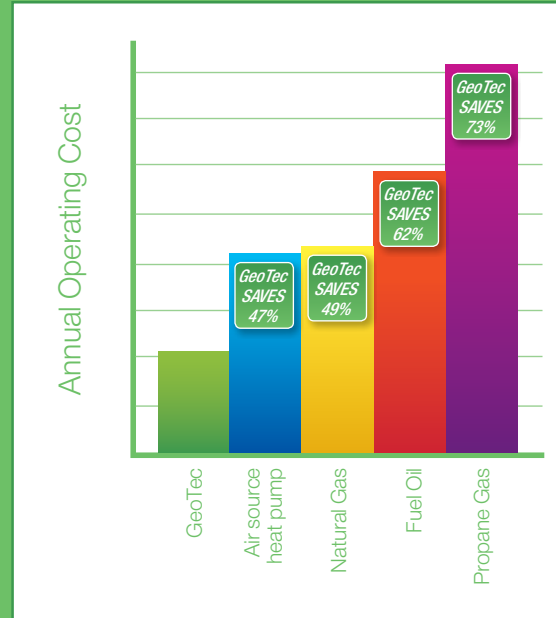
Flexible Application – geothermal systems have many loop configuration possibilities, it's adaptable to a variety of property situations, both residential and commercial.

Reliable Operation – the components of a geothermal system are not exposed to the weather, they are more durable than a conventional heat pump unit.

Healthier and Safer – geothermal systems reduce indoor air pollutants and provide outstanding humidity control. Plus, there is no open flame, fuel storage tanks or flammable fuel, and no outside venting.

Cost Comparison of Geothermal

This chart illustrates the average estimated operating costs per year of a geothermal unit versus other conventional high efficiency heating and cooling systems. The cost is based on DOE published average energy cost for March 2008 for Lansing, Michigan location.



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Geothermal Heating and Cooling

Environmentally sound.
Economical operation.
Energy efficient.



Geothermal Heating and Cooling Explained



Regardless of the outside air temperature, the temperature of the ground a few feet below the surface of your backyard remains a constant 55° all year round. By tapping into this consistent “energy” source that’s been absorbed in the ground, geothermal heating and cooling systems are able to provide comfort at a much higher efficiency than traditional types of equipment.

Geothermal systems use underground pipes and a heat pump to transfer heat between your home and your yard. In winter, the geothermal system brings heat inside, where a heat pump sends the warm air through ductwork to heat your home. In the summer, the process is reversed. Warm inside air is delivered outside, where it dissipates harmlessly underground, cooling your home.

Geothermal systems can be installed in a variety of configurations, depending on your needs and the conditions of your property.

An Open Loop System is for you if:

- You have a readily available source of ground water such as a lake or well
- The water source has adequate capacity to support the system
- *How it works – open pipes draw water in and discharge it, exchanging heat*

A Closed Loop System is for you if:

- There is no readily available water source
- *How it works – circulates a water and antifreeze solution through a closed loop of pipe*

A Vertical Loop is for you if:

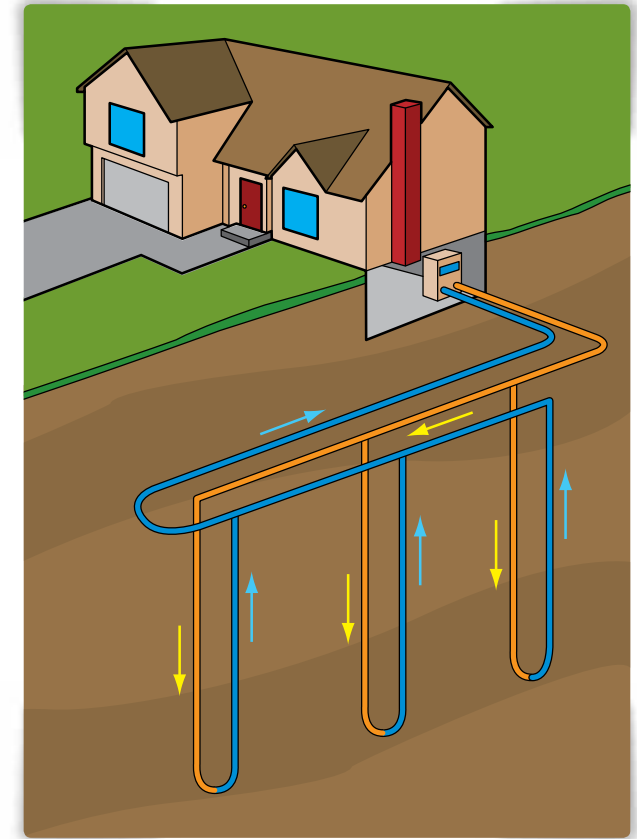
- Space is limited

A Pond Loop is for you if:

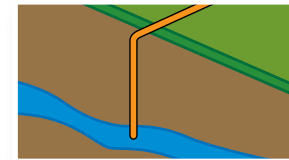
- The body of water has sufficient depth
- The pond is close to the house

A Horizontal or Slinky Loop is for you if:

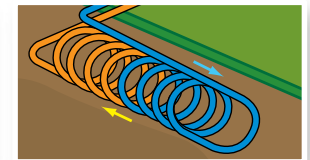
- Land area is sufficient – about 1/4 to 3/4 acre is usually enough for the average sized home



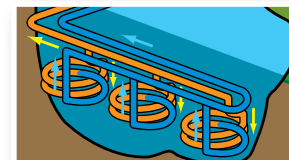
Vertical Loop



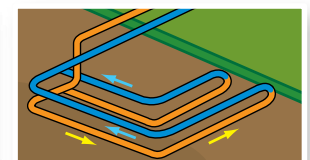
Open Loop



Slinky Loop



Pond Loop



Horizontal Loop

U.S. Tax Credit Incentive

Since Bard GeoTec™ Heat Pumps are Energy Star Rated, they qualify for a tax credit equal to 30% of your total cost of installation! See your Bard dealer for all the details.

