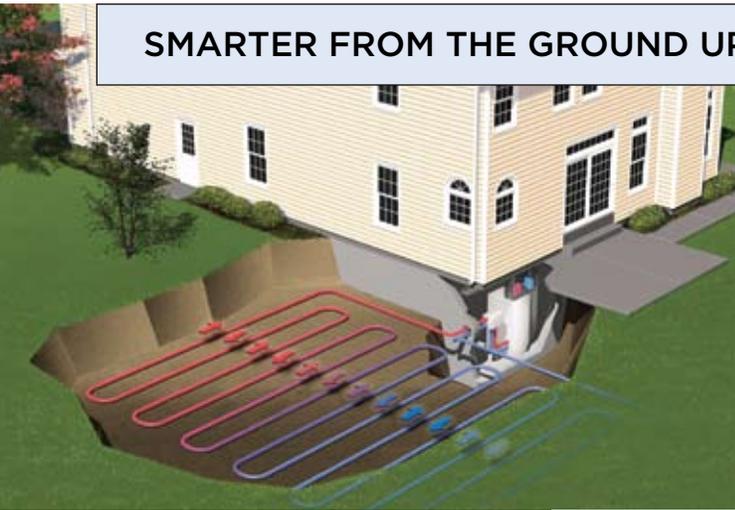


**A CLEANER ENVIRONMENT**  
It's in our nature

**WaterFurnace**  
Smarter from the Ground Up™



## SMARTER FROM THE GROUND UP



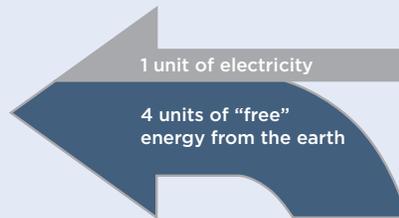
There's enough *energy in your backyard* to heat and cool your home — *without using expensive fossil fuels* that pollute the air we breathe. WaterFurnace geothermal systems *provide safe, reliable, energy-efficient heating and cooling* from one piece of equipment. Instead of burning fossil fuels, they move

Envision Series units can deliver an astounding five dollars of energy for every dollar of electrical energy used.

### Use resources wisely

WaterFurnace geothermal systems are recognized by the United States Environmental Protection Agency as the most environmentally friendly, cost-effective and energy-efficient heating and cooling technology available. So, you can make a significant contribution to a cleaner environment—while saving up to 70% on your energy bills.

For each dollar of electricity consumed, a WaterFurnace unit delivers four to five



dollars of energy. This translates to a 400-500% efficiency rating, while the most efficient—and expensive—gas furnace provides only 98%. This efficiency ratio is the key to a geothermal system's remarkable potential for energy conservation—moving heat rather than creating it.

### Help reduce climate change

Geothermal heat pumps help electric utilities achieve significant reductions in their peak demand loads. By reducing the demand on electric utilities, geothermal systems reduce the need for new power plants, which typically are powered by coal or natural gas. Compared to an electric resistance heating system, a typical 2,500-square-foot home with a geothermal system can save the electric utility company more than nine tons of coal a year.

These systems also minimize the threats of acid rain, air pollution, the greenhouse effect and global warming — problems directly linked to the burning of fossil fuels. In fact, installing a single geothermal unit is the environmental equivalent of planting 750 trees or removing two cars from the road.

### Go with the leader in the industry

Unmatched efficiencies and environmentally responsible products are hallmarks of WaterFurnace. Because WaterFurnace geothermal systems don't burn fossil fuels, they emit no harmful greenhouse gases; no flames; no fumes; no odors, and no carbon monoxide.

Ten years ago we were the first to offer a geothermal system using the ozone-safe R-410A refrigerant. Today, **our entire line of products utilize R-410A**. And while other companies *claim* to be the most efficient, **only WaterFurnace Envision Series products have the certified AHRI ratings of the most efficient heating and cooling systems on the planet**. By choosing the safe, clean, and efficient products from WaterFurnace, you'll be making a positive impact on both your family and the environment.

energy to and from the earth to heat and cool your home. Compared to ordinary systems, WaterFurnace geothermal technology can *save you up to 70% on your monthly energy bills*, while protecting your family from the danger of carbon monoxide and *keeping the environment clean*.



## Why Geothermal?

### Lower operating costs:

Operates more efficiently than ordinary heating and air conditioning systems, saving up to 70% in most cases.

### Safe and clean:

No flame, no flue, no odors and no danger of fire or carbon monoxide. High-efficiency air cleaners remove dust and pollens to improve indoor air quality.

### Quiet operation:

A super-efficient compressor and soft-start, variable-speed fan make WaterFurnace units so quiet that some find themselves checking to make sure the system is actually on.

### Comfortable:

Provides precise distribution of warm air in winter. Gone are the uneven temperatures experienced with ordinary furnaces. In summer you get central air conditioning with better dehumidification.

### Flexible:

No matter what climate you live in, your WaterFurnace system will deliver. One compact WaterFurnace unit provides heating, central air conditioning and supplemental domestic hot water. A variety of configurations and sizes are available to fit any home, including newly constructed and existing homes.

### Environmentally friendly:

WaterFurnace systems harness the free, renewable energy in your own backyard to heat and cool your home. The system emits no carbon dioxide, carbon monoxide or other greenhouse gasses, which are considered to be major contributors to environmental air pollution.

### Reliable:

Microprocessor controls and state-of-the-art components allow smooth operation and years of virtually maintenance-free service.



## AT WORK IN THE REAL WORLD



**\$1013 Estimated Annual Heating & Cooling**  
2,000 square feet  
Florida



**\$1052 Estimated Annual Heating & Cooling**  
2,750 square feet  
Missouri



**\$2142 Estimated Annual Heating & Cooling**  
5,570 square feet  
Kentucky

# EARTH LOOPS - AT THE HEART OF IT ALL

The earth loop transfers heat to and from the ground— eliminating the need for fossil fuels. It's the heart of a geothermal system, and its biggest advantage over ordinary technologies.



## VERTICAL LOOP

Vertical loops are used when space is limited. Holes are bored using a drilling rig, and a pair of pipes with special u-bend fittings is inserted into the holes. A typical home requires three to five bores with about a 15-foot separation between the holes.



## HORIZONTAL LOOP

Used where adequate land is available, horizontal loops involve one or more trenches that are dug using a backhoe or chain trencher. Polyethylene pipes are inserted, and the trenches are backfilled. A typical home requires 1/4 to 3/4 of an acre for the trenches.



## POND LOOP

If an adequately sized body of water is close to your home, a pond loop can be installed. A series of coiled, closed loops are sunk to the bottom of the body of water. A 1/2 acre, 8-foot-deep pond is usually sufficient for the average home.



## OPEN LOOP

An open loop is used where there is an abundant supply of quality well water. The well must have enough capacity to provide adequate flow for both domestic use and the WaterFurnace unit. Envision units require 3 - 10 GPM, depending on size.

## FAQ

### Frequently Asked Questions

#### **Q. How does a geothermal system work?**

A. Geothermal energy is an unlimited resource. The lot surrounding a suburban home typically contains 10 times more energy than is required over an entire heating season. While outdoor temperatures fluctuate with the seasons, underground temperatures do not. About four to six feet below the earth's surface, temperatures remain relatively moderate and constant year-round. Geothermal systems utilize these constant temperatures.

In winter, fluid circulating through the system's earth loop absorbs stored heat and carries it to the home. The indoor unit compresses the heat to a higher temperature and distributes it throughout the home. In summer, the system reverses, pulling heat from the home, and returns it to the cooler earth.

#### **Q. Why is geothermal better?**

A. A geothermal system is the cleanest, most efficient way to heat, cool, and provide supplemental hot water. Typically, electric power is used only to operate the unit's fan, compressor and pump. These systems simply transfer heat to and from the earth.

#### **Q. How efficient is geothermal?**

A. A geothermal system is more than five times as efficient as the most efficient ordinary system. Because geothermal systems do not burn fossil fuels to make heat, they provide four to five dollars of energy for every one dollar used to power the system.

#### **Q. Does geothermal help nature?**

A. Because geothermal systems work with nature, not against it, they minimize the threats of acid rain, air pollution, dependence on foreign oil, and the greenhouse effect. An environmentally friendly fluid is used in the closed loop.



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