

# GROUND SOURCE HEAT PUMPS

## GEOTHERMAL HEATING & COOLING RATE 65 OR RATE 10NT

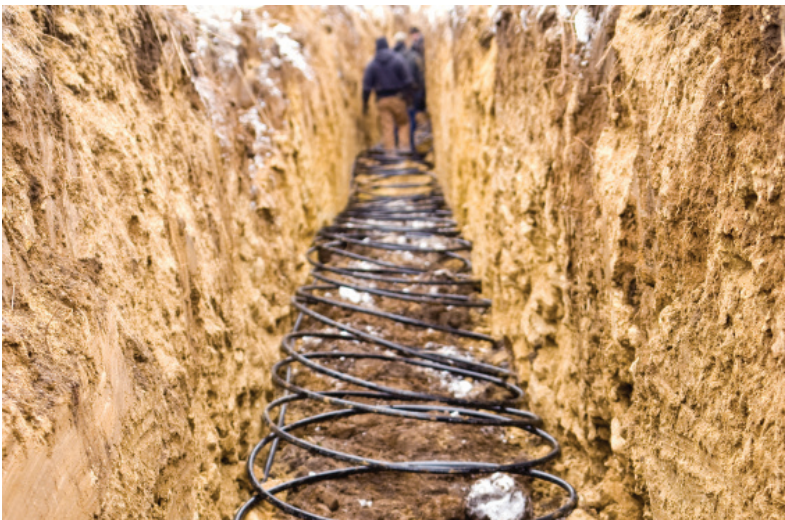
Invest in a ground source heat pump (GSHP) and you will heat and cool with one technology. Ground source heat pumps make use of renewable energy – straight from the earth. Also known as geothermal, these are stand-alone systems that provide whole-house heating and cooling by utilizing the steady temperature naturally produced in the ground to heat your home.

GSHPs are one of the most efficient residential heating and cooling systems available today, with heating efficiencies 50% to 70% higher than other heating systems. In cooling mode, the efficiencies are 20% to 40% higher than other air conditioners. That directly translates into heating and cooling savings.

*In heating mode*, a water-based solution circulates through pipes buried underground. When the solution reaches the heat pump, the collected energy is transferred to a low-pressure liquid refrigerant, which vaporizes. From the compressor, heat is released into your home as your heating needs require.

*In cooling mode*, the refrigerant's flow is reversed during the summer, carrying excess heat from your home to provide cool, efficient, and comfortable climate control. The units can operate up to 350% efficient.

Geothermal systems can completely replace your furnace and air conditioner. It may qualify for Lake Country Power's dual fuel heating program.



### Two types of ground source heat pumps

- **Closed loop systems:** Geo-pipe buried in the ground either in a slinky-type pattern or water-well type u-tubes with an environmentally safe anti-freeze solution which transfers heat or cold fluid through the system.
- **Open loop systems:** Utilizes your existing well water to push fresh water through heat pump coils to either heat or cool your home.

### Clean Energy

Ground source heat pumps utilize a clean energy source by recycling earth's outdoor air temperatures, offering an environmentally friendly heating and cooling alternative to fossil fuels. Geothermal provides a safe, environmentally-friendly solution for home comfort conditioning. The system doesn't use an open flame or create products of combustion – such as carbon monoxide – so there is no need for venting.

### System Requirements - Please refer to the Dual Fuel program guide.

Lake Country Power must have a way to turn on and off or "control" your heat pump, and you must have your system(s) properly wired to a separate meter. LCP will install a DRU (demand response unit) to be programmed for the load management control strategy. Energy Wise® programs require an additional meter.

### Rebates & Rates

Rebates may be available. Visit [www.lakecountrypower.coop](http://www.lakecountrypower.coop) for more information or call 800-421-9959 (press 6). Our member service department can provide a list of local HVAC contractors.