

Out with the Old system and in with the New...

## Geothermal is not just for new homes

Is it time to replace your heating and cooling system? If so, it's time to go electric! Janelle and Neil Mahr of rural Lime Springs made the switch 4 years ago and decided to install their 4-ton geothermal unit in November. "The upfront investment is larger than purchasing a conventional unit, but the benefits clearly outweigh the cost," says Janelle. "We love it and would strongly recommend geothermal to anyone who is considering changing their current heating/cooling system." A geothermal system can easily be installed in most homes – new or old, large or small.

When comparing prices for their 1,700 square foot home between LP and an electric system, the numbers didn't even come

close. They were using an average of 1,000 gallons of LP to heat their home annually. At today's prices, it would cost approximately \$1,300 (annually) just for their heating bills. Now, the Mahr's pay only \$1,800 per year for heating, cooling *and* electricity. A geothermal system for the typical home will cost more than if you purchase a separate furnace and central air conditioning system. But that's not comparing apples to apples. It's important to consider the payback. Generally, the payback for heat pump systems runs three to six years. Shorter payback periods can be expected when the Hawkeye REC rebates, the special all-electric rate or interruptible rates, and tax incentives are factored into the equation.

Another benefit with the geothermal system is that you don't have to purchase a separate central air-conditioning unit because the process is simply reversed during the cooling season.

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*Janelle Mahr, Hawkeye REC Director, has been pleased with their decision to install a geothermal system in their existing home.*



# Geothermal (continued from cover...)

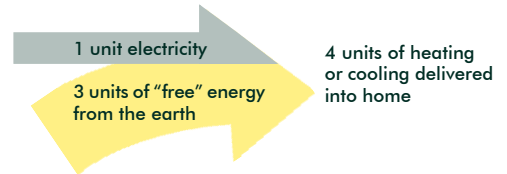
In colder months when the geothermal heat pump is in the heating mode, the system uses a water-based solution, circulated through pipes buried in the earth, to



absorb heat from the earth and transfer it inside to the geothermal unit. The geothermal unit concentrates this heat and delivers it throughout your home using a typical forced air system. During hot weather, excess heat is transferred from your home back into the earth.

While using the earth's thermal properties in conjunction with electricity, this type of heat pump provides unprecedented efficiency. For every unit of electricity the system uses, it provides four units of heating en-

ergy, giving a geothermal system a 325 percent efficiency rating, on average. These numbers can translate into real savings on your utility bills year-round.



"I can remember my husband Neil saying about 12 years ago (before geothermal was so popular) that if our furnace ever failed, we would install the geothermal unit without a doubt," says Janelle. Now as the cost of natural gas and LP have increased dramatically over the past couple of years, electric heating and cooling systems remain a smart investment.

## 6 reasons why to install heat pump



### Environmentally Friendly

According to the Department of Energy and the EPA, geothermal systems are the most environmentally friendly way 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. With a geothermal system, you can take comfort in a better environment. In addition, the lower peak demand for geothermal systems helps to postpone the need to build more expensive electric generating plants.



### Heating

A heat pump is a heating, cooling and hot water system designed to tap the natural energies of our environment. Heat pumps pull heat from the air or earth to warm your home or business in the winter. This natural heating system can cut your costs by as much as 60 percent.



### Cooling

With the flick of a switch, a heat pump becomes an air conditioner that will pull heat from your home, transferring it to the earth or the air. This heat transfer system will reduce your home cooling costs up to 25 percent.



### Hot Water

A heat pump is so efficient it can use excess heat from its heating and cooling operation to heat water for household use. Depending on the season, a heat pump can provide your home with hot water free or at a very low cost.



### Money

Depending on the type of heat pump installed, you will receive \$3 to \$5 worth of heating and cooling for every dollar spent on electricity. Savings will continue year after year, often allowing the recovery of initial installation costs in two to six years.



### Safety

No gas, flame or fumes. Safe, clean electricity powers a heat pump. You'll never have to worry about gas leaks, fumes or flames again. Heat pumps are the clean alternative for year-round comfort and convenience.



For more information regarding geothermal or other electric heating and cooling options call our office at 800-658-2243 or visit our website at [www.hawkeyerec.coop](http://www.hawkeyerec.coop). Be sure to request a copy of our new brochure "Electric.... The Safe, Efficient and Affordable Choice" and start making your plans today!

