# Heat pumps

### **Ground source heat pumps**

Electric Rate: .....General Service Rate or Dual Fuel: ......6.15¢/kWh

Heat and cool with one technology!

Ground source heat pumps are stand-alone systems that provide whole-house heating and cooling, by utilizing heat present in the earth to heat your home.

A water-based solution circulates through pipes buried underground. When it 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.

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 be as much as 350% efficient.

A heat pump can completely replace your furnace and air conditioner, and may qualify for the dual fuel heating program.

### Two types of ground source heat pumps:

- Closed loop systems: geo-pipe buried deep 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.

# COOLING COMPRESSOR AIR HEAT EXCHANGER WATER HEAT EXCHANGER EXPANSION VALVE WATER HEAT EXCHANGER WATER HEAT EXCHANGER BLOWER BLOWER

\*These programs may require an additional meter.

## Air source heat pumps Electric rate: 6.15¢/kWh (if on cycled control)

Air source heat pumps are a breath of fresh air!

These units offer an environmentally friendly heating and cooling alternative – nearly all year long.

In heating mode, air source heat pumps transfer heat from outdoor air into your home, reducing your reliance on propane, fuel oil or other fuel sources and may be controlled the same as dual fuel. Air source heat pumps are up to 300 percent efficient down to an outdoor air temperature of 26 degrees Fahrenheit, offering an alternative for your spring and fall heating needs.

In cooling mode, air source heat pumps work like an air conditioner, transferring heat out of your home, keeping it cool and comfortable all summer long.

### These units offer you several important advantages:

- Safe no flames or fumes
- Environmentally responsible you use less energy, plus no venting and no emissions from your home or business
- Qualify for Lake Country Power's low dual fuel rate (in heating mode) and cycled air program (in cooling mode)

Both ground-source and air-source heat pumps require a certified heat pump contractor to install. Contact Lake Country Power for a list of contractors near you.

#### Rebates

Rebates offered for a limited time and subject to change without notice.

Call your local Lake Country Power service center or visit www.lakecountrypower.coop for more information:



Grand Rapids • Kettle River • Mountain Iron 800-421-9959