pumps also can generate domestic hot water anytime the system is running. Waste heat from your air-conditioning can be used to provide hot water at no cost in the summer and at substantial savings in the winter. The groundsource heat pump takes this heat and transfers it to your hot water tank for the small cost of operating a small circulating pump.

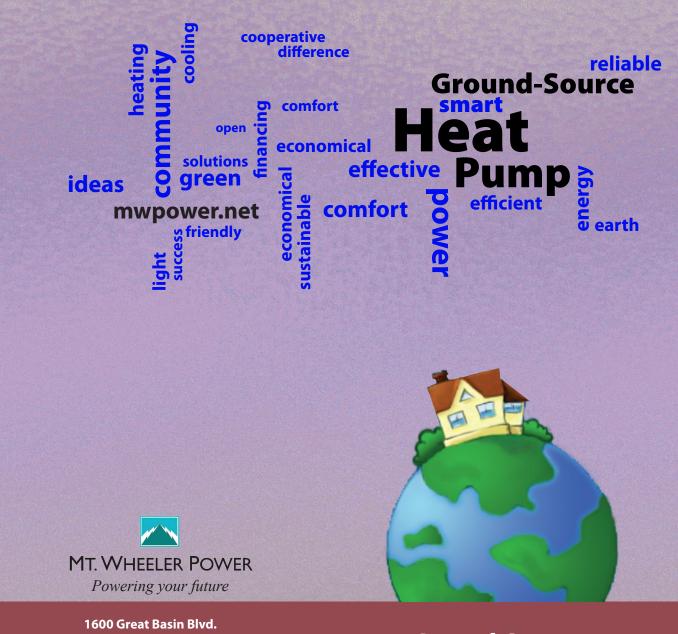
## Earth energy—Depend on it

Earth energy systems have been called many names: ground-source heat pumps, geothermal heat pumps and GeoExchange. Whatever it's called, it's always a great idea.

The earth has been around for more than four billion years. When it comes to energy, dependability is everything. What can be more dependable than earth energy—the energy source that cools you in the summer, warms you in the winter and provides a large portion of your hot water needs year-round?

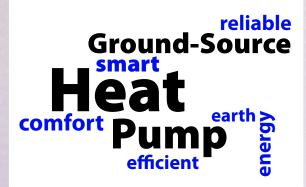
## **Financing Available**

You can finance all costs for installing a groundsource heat pump system through Mt. Wheeler Power's low-interest loan program. Save money on your energy costs and save money on your loan costs. Contact Mt. Wheeler Power for more details.



Imagine...cutting your annual energy bill by as much as 66 percent. You can with a groundsource heat pump! 1600 Great Basin Blvd. P.O. Box 151000 Ely, NV 89315 (775) 289-8981 or 1-800-97- POWER info@mwpower.net

Ground-Source Heat Pumps



### An energy source that is both dependable and free.

When it comes to heating and cooling your home or office, one energy source you can really depend on is the Earth. That's why Mt. Wheeler Power is promoting the installation of super-efficient ground-source heat pumps, for homes, businesses and schools. With a performance co-efficient of 3.0 to 4.0, these units can provide heating, air conditioning and hot water heating for one-third your present annual energy costs. The system costs more initially than a regular heating system, but you'll make up this extra cost within an estimated five to six years. After that, your saving will be huge.

# How does the Earth provide "dirt-cheap" energy?

The Earth is a natural solar collector, capable of absorbing and storing natural energy from the sun. Heat from the sun is absorbed and stored beneath the Farth's surface. Because the Farth provides its own insulation, it is capable of maintaining approximately the same temperature vear-round, no matter what the actual climate conditions are above the surface.

Ground-source heat pumps are designed to use the ever-present energies of the Earth to heat and cool your home or office at remarkably lower costs than other conventional comfort-conditioning systems.

This innovative system is engineered to tap into the Earth's constantly available and free source of energy. During the winter, your home is heated from the natural energy stored beneath the Earth, even in the coldest climates. And while the system is removing heat from the indoors during the summer, the Earth absorbs this heat, acting as a natural system coolant to provide for your seasonal cooling demands.

## **How a Pump Works**

The system accomplishes this by using three basic components:

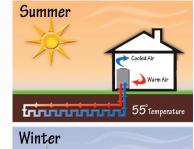
- The earth-energy heat pump unit
- The fluid supply pipe loop
- The pumps to circulate the fluid through the system

In a closed-loop Earth-coupled system, special plastic pipe is buried beneath the Earth's surface, filled with water and anti-freeze, and connected to the heat-pump unit.

With permission from municipal authorities, domestic water lines can be used as part of the fluid-supply pipe-loop. This is achieved by tapping into existing domestic water lines, circulating fluid through the heat-pump unit and sending it back to the domestic water line.

During the winter, the fluid circulating from the loop extracts the free heat available from the Earth. Then, the fluid is circulated through the heat exchanger, which transfers the heat from the Earth to warm your home or office.

The cycle is reversed during the cooling season. The heat pump removes the heat from





your building's interior and transfers it to the Earth loop through the refrigerant-to-water heat exchanger. As the fluid is circulated through the loop, the Earth absorbs the heat rejected by the cooling system to provide a natural cooling effect. That means year-round comfort, dirt cheap.

#### Water heating too!

smart

relaible

Ground-source heat

financing Earth O Efficiency heating coolina