

ENERGY WISE

for your Business



Ground source heat pumps (GSHPs), also known as geothermal heat pumps are electrically powered systems that tap the stored energy of the greatest solar collector in existence: the earth. These systems use the earth's relatively constant temperature to provide heating, cooling, and hot water for commercial buildings.

GROUND SOURCE HEAT PUMPS:

Use the earth's energy and improve your bottom line.

How does it work?

GSHPs circulate a liquid in underground piping, transferring heat to and from the heat pump. The GSHP extracts heat from the ground in the winter and hot air from the building in the summer. Due to the earth's temperature remaining at a relatively constant 50 degrees year round, ground source heat pumps are the most energy efficient heating and cooling systems available (300%-400%), regardless of the outdoor air temperature. In addition, waste heat from the air conditioning cycle can be used to provide "free water" heating during the summer.

Value For Your Business

- Low operating cost
- No required exposed outdoor equipment
- Level seasonal electric demand
- No on-site combustion
- Long life expectancy
- Low cost integrated water heating
- Simplicity
- Low maintenance
- No supplemental heat required
- Low environmental impact

Other Benefits for Your Business

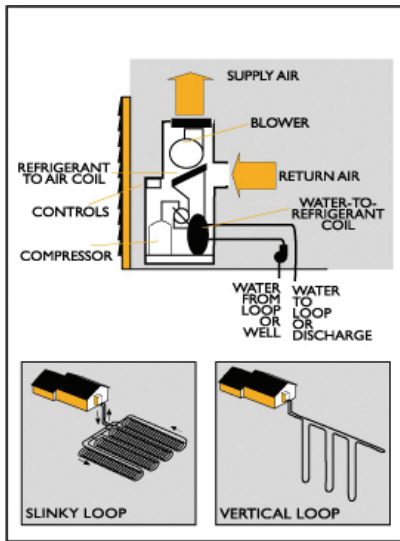
- Simultaneously heat and cool different parts of the same building
- Greater freedoms in building design due to 50-80% less mechanical room space
- No outside equipment to hide, eliminating vandalism and roof top units
- Ground loop typically have 50+ year life expectancy
- Conserve natural resources by providing efficient climate control and thus lowering emissions
- Very energy efficient, the earth provides the energy required to heat and cool while the heat pump simply moves that energy



East Central Energy

Your Touchstone Energy® Cooperative 

Use the earth's energy and improve your bottom line



A water/anti-freeze solution circulates in underground piping transferring heat to and from the heat pump.

Source: International Ground Source Heat Pump Association (IGSHPA)

What you need to do

1. As a member of ECE you are responsible for checking with your electric cooperative to verify funding availability and program parameters.
2. Request a GSHP rebate application from ECE.
3. Complete the GSHP rebate application and include proof-of-purchase and documentation of efficiency ratings
 - Installation must be complete before funds will be issued.
 - Itemized invoices from equipment vendors must accompany rebate application.
 - Invoices must itemize labor charges, quantity and price of the equipment installed.
 - Invoices must include manufacturer and model numbers for the installed equipment.
 - ECE reserves the right to conduct inspections.
 - Only new and complete ground source heat pump units qualify

Who can participate?

- Any commercial building or business
- GSHP's flexible design requirements lower operating and maintenance costs, and durability making them a smart choice for schools, high-rises, government buildings, apartments, and restaurants – almost any commercial property. Lower operating and maintenance costs, durability, and energy conservation make Ground Source Heat Pumps the smart choice for commercial applications.

What you'll receive

Rebates are based on the tonnage of the system.

CONTACT US

For any questions, please call ECE at 1.800.254.7944 for more information and assistance in getting these rebates and incentives to help improve your bottom line – today!

SUCCESS STORY:

Crosslake Presbyterian Church Crosslake, MN

When Crosslake Presbyterian Church was built in the late 1990s, energy efficiency was not typically a high priority during construction projects. There also weren't rebates and incentives available like there are today.

Nonetheless, the parishioners decided to invest in a ground source heat pump to efficiently heat and cool the church.

In the years since, the money saved on heating and cooling costs has more than paid for the system and will create cost savings for many years to come. According to Reverend Roger Grussing of Crosslake Presbyterian Church, "It works like a charm." Best of all, the system maintains

a comfortable temperature year-round.

A ground source heat pump is the most energy efficient heating, cooling and water heating system available. A ground source heat pump can be installed during initial construction or as a retrofit.

At Crosslake Presbyterian Church, 20 wells were drilled on the grounds to accommodate four closed-loop ground source heat pump systems. The same system that provides sufficient heat during the long northern Minnesota winters also delivers highly efficient air conditioning in the summer.

ENERGY WISE  **MN**