ENERGY
Absorbed by Atmosphere 20%

Reflected 30%

Total 100%

Absorbed by Surface 50%
Horizontal Loop
Ground Source Heat Pump Energy Sense

1 kWh of energy from the Utility

Yields: 4-6 kWh of energy for the Building

Plus: 3-5 kWh of free energy from the earth

400-600% Efficient (COP of 4-6)
The ground loop transfers ground energy to a refrigerant in the heat pump.

Increasing the pressure raises the temperature. Heat is transferred to the heating water.

Heat is transferred to the room by radiators or underfloor heating.

The refrigerant expands, causing it to cool.
GEOTHERMAL ADVANTAGES

- Reduces heating cost up to 80%
- No combustion or carbon emissions
- Free supplemental hot water
- Lowest maintenance costs
- Long equipment life: over 50 years!
- Even and constant temperature
- Complete humidity control
Annual Home Heating Cost (From 2009 FEC Report)

- Propane
- Fuel Oil
- Wood Stove
- Pellet Stove
- Electric
- Natural Gas
- Air to Air
- Geothermal

Annual Heating Cost
NY’s Most Trusted Renewable Energy Experts