

GEOHERMAL

INFORMATION

Geothermal energy is energy from inside the Earth.

Geothermal resources for the production of electricity are not available in Michigan. However, closed loop or open loop systems, which are sometimes called geothermal heat systems, use electricity to run a heat pump that extracts the 50-62 degree Fahrenheit temperatures from below the frost line. These geothermal systems are used for heating homes and businesses in the winter and cooling them in the summer. Geothermal heat pumps are similar to conventional air conditioners and refrigerators. While air conditioners and refrigerators discharge waste heat to the air, geothermal pumps discharge waste heat to the ground during cooling season and extract useful heat from the ground during heating season.

Ground Source Heat Pump Heating Mode

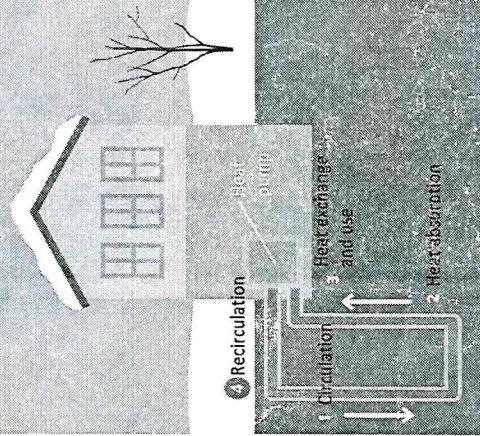


Photo Credit: EPA

ADVANTAGES/USES

- Reduces household heating and cooling costs.
- Can be installed economically, especially for new construction in rural areas. Simple technology, which fits most home ventilation systems.
- Works in both winter and summer
- Permanent energy source.
- Does not produce greenhouse gases or other air pollutants.

DISADVANTAGES/LIMITS

- Slightly higher initial costs for installation of home closed loop heating/cooling systems.
- Not suitable for electricity generation in Michigan.
- Some systems require electricity to run the pump.

FOLD ^ HERE