GREAT LAKES
ENERGY

RESIDENTIAL

WHAT IS A HEAT PUMP?

INFORMATION

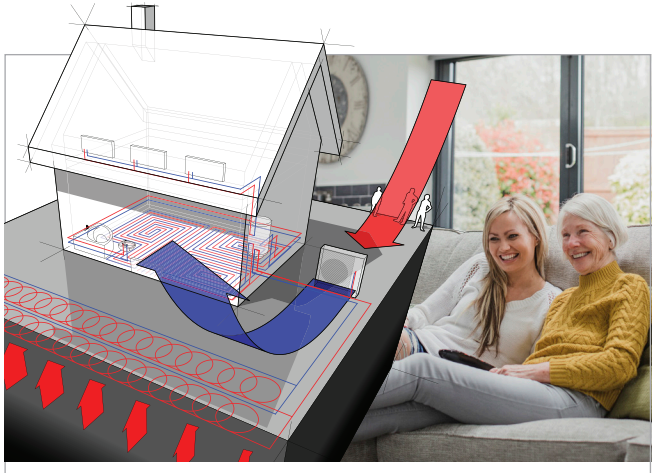
Visit gtlakes.com
or call 888-485-2537

What is a Heat Pump?

A heat pump is equipment that uses refrigerant to move heat from one place to another.

Your refrigerator is a heat pump. Heat inside is moved outside to keep food cold. In similar fashion, a heat pump removes heat within your home to cool it. When cold weather arrives, it moves heat back into the home again.

Heat pumps require less energy and money to operate because the solar energy that provides the heat is free. Heat naturally present in the earth and air can be pumped into the home for heating or returned to the ground or air for cooling.



Heat pumps heat and cool your home.

Depending on the type, they draw heat from either the ground or the outside air to heat a home and extracts heat from the home to cool it.

GROUND AND AIR SOURCE SYSTEMS

Unlike a gas furnace or wood burning stove, heat pumps don't create heat; instead, they move heat from one place to another. This is possible because heat is naturally present in the earth and air, even when it is cold outside. Essentially, a heat pump functions as an air conditioner that can also work in reverse. In the summer, the equipment moves heat from inside to outside the home; and in the winter, heat is transferred from outside to inside the home.

Advantages of a heat pump system:

Efficiency. Heat pumps use considerably less energy to heat and cool your home, all year long. They range from 200 to more than 400% efficient.

Convenience. Since heat pumps use electricity, you won't spend time filling tanks, or dealing with wood or fuel shortages or seasonal price fluctuations.

Comfort. With heat pumps, you have more control of your comfort.

Health. Heat pump air filters remove harmful particles from indoor air. Many models also provide dehumidification, reducing the likelihood of mold and mildew.

Safety. Since a basic heat pump is not powered by natural gas or propane, you have less risk of leaks, fires, and carbon monoxide poisoning.

Cleaner environment. Electric-powered heat pumps are designed to produce zero emissions on-site, and can utilize renewable energy sources like wind and solar—thereby reducing your environmental impact.

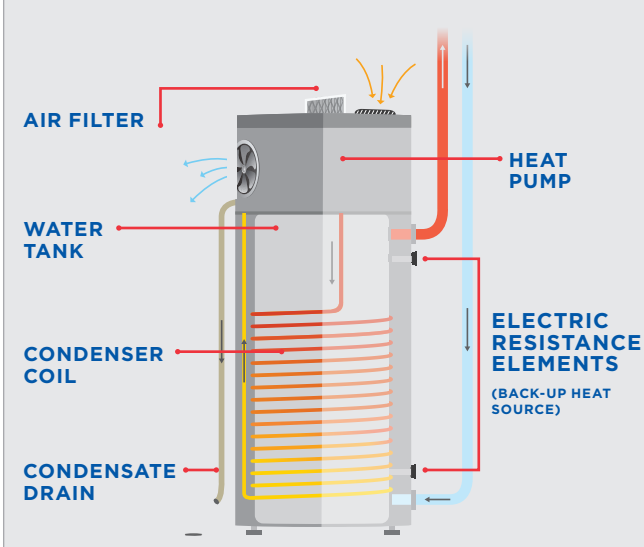
Is a heat pump right for MY home?

Generally, any home is a candidate for a heat pump.

They work especially well in new construction or remodels.

Open and closed loop geothermal systems are available, in addition to systems that connect to your well.

Air-source and well-connected heat pumps do not require a loop installation.



HEAT PUMP WATER HEATERS

Heat pump water heaters function essentially the same as a home air source heat pump.

A fan in the top section of the water heater draws surrounding ambient air into the heat pump. Heat energy is extracted from the air, which is transferred to a fluid called refrigerant. The refrigerant is compressed, becomes hot, and passes through the condenser coils—heating the water in the tank. Cooled, dehumidified air exits the heat pump, and a very small amount of distilled water leaves the unit through a condensate drain.

Why switch to a heat pump water heater?

Heat pump water heaters are up to 3.7 times more efficient than a standard electric water heater. While they do use electricity—to run the fan, compressor, and back-up electric resistance heating elements—they use a fraction of the energy consumed by a standard electric water heater.

Installation is best in a conditioned space.

Special Incentives

Qualifying air-source heat pumps: $400 rebate, plus eligibility for a lower electric rate.

Qualifying ground-source heat pumps: $700 rebate, plus eligibility for a lower electric rate.

Qualifying heat pump water heater: $500 rebate

Contact us at 888-485-2537, extension 8957, for more information.

BONUS: Additional rebates up to $750 for heat pumps and up to $700 for heat pump water heaters are available through our Energy Optimization program.

Visit michigan-energy.org or call 877-296-4319.

Great Lakes Energy does not sell or install heat pumps or heat pump water heaters.

Visit earthcomfort.com sponsored by the Michigan Geothermal Energy Association for more information about dealers in your area. Also, search for local contractors and manufacturers online.

GREAT LAKES ENERGY

Power. Purpose. **You**.

gtlakes.com (888) 485-2537

1323 Boyne Avenue,
P.O. Box 70, Boyne City, MI 49712

UPDATED FEBRUARY 2020