

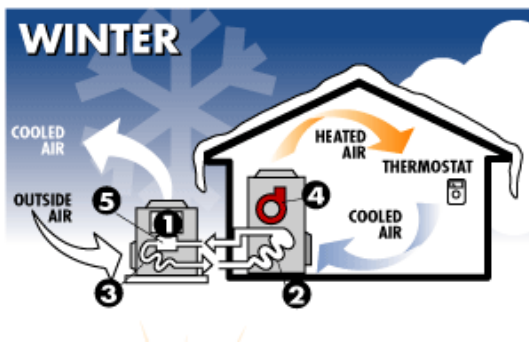


Upgrading Your Heating System

HOW CAN I REDUCE MY HEATING BILL?

Supplement or replace your heating system with alternative technologies. Since the technologies featured here are reversible, you can improve your building's energy efficiency without permanently compromising any of its character defining features.

Air Source Heat Pump



How it works

Uses the outside air to extract and transfer heat from an internal coolant pumped throughout the system, much like a refrigerator.

Pros

Can retrofit into an existing ducted furnace system, can be used as an air conditioner in the summer

Cons

Some noise issues

A simple way to decrease the energy consumption of a conventional hot water heater is to insulate the tank and the pipe that runs from the tank. You can also purchase an electric thermostat to help regulate the temperature of your

Earth Energy System

How it works

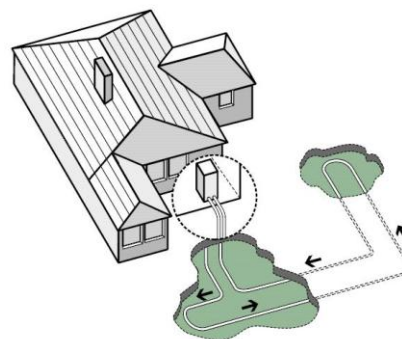
Extracts heat from a relatively constant temperature source deep below the ground. A refrigerant is pumped through buried or (if you have a body of water on your property) submerged tubes where it is heated by the surrounding earth and used for space and water heating.

Pros

Year-round functionality; no aesthetic impact

Cons

Can be expensive to install; best for large properties

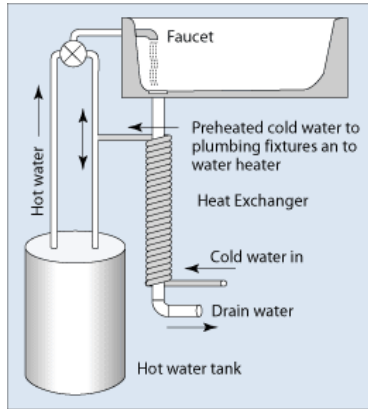


A ground source heat pump: one of the many earth energy systems available

Purchase a programmable thermostat to help regulate the temperature of your home.



Drain Water Heat Recovery



How it works

Extracts heat from warm drain waste water (i.e. shower water) and preheats the cold water entering the domestic hot water heating system.

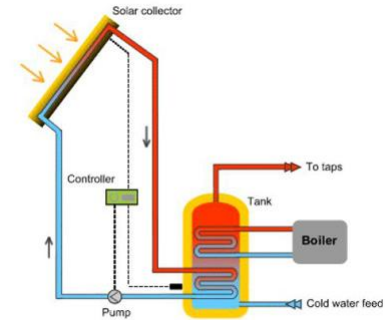
Pros

Inexpensive, reliable, no maintenance

Cons

Two meters of drain pipe is required for installation, requires plumbing permit to install

Water Heating Solar Panels



How it works

Panels use the sun's energy to heat the fluid in the solar storage tank. This system heats domestic water as well as the water heater.

Pros

Can often supply all the hot water needed in the summer, a common retrofit to existing buildings

Cons

Not effective in winter months, aesthetic impact

Tankless Water Heater

How it works

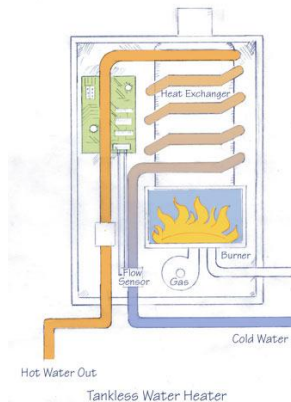
Water is heated as it flows through a heat exchanger coil. No water is retained internally except for what is in the coil.

Pros

Inexpensive, unlimited hot water supply, compact, can act as a booster if combined with another heating system

Cons

Can be difficult to install as a retrofit



Consult a **Certified Energy Advisor** to determine what is appropriate for your needs and to learn about government grants available to homeowners.