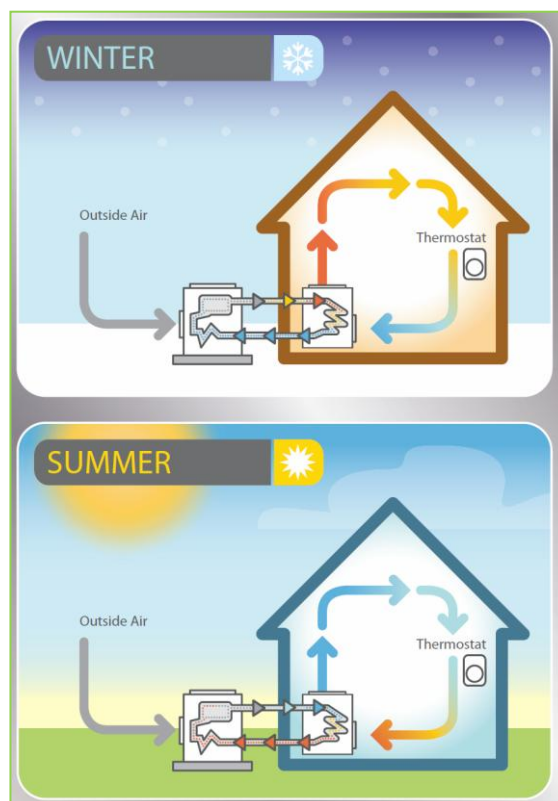


EPEE members actively support the promotion of heat pumps, a renewable and very energy efficient technology using renewable energy from ground, water and air sources.

- Heat pumps offer an excellent energy-efficient alternative to boilers. They move heat from the cool outdoor air into your warm house during the heating season. During the cooling season, they transfer heat from your cool house into the warm outdoors. Because they transfer heat which is present in the air, ground or water to the house rather than generating it from fossil fuels, they can provide up to 6 times the amount of energy they consume.
- Under the [EU Directive on the Promotion of Renewable Energy Sources](#), heat pumps are recognised by EU law as a renewable energy technology.
- Heat pumps are an effective tool to reduce CO2 emissions. It is estimated that they could save 50% of the building's sector CO2 emissions, and 5% of the industrial sector. This means that 1.8 billion tonnes of CO2 per year could be saved by heat pumps, corresponding to nearly 8% of total global CO2 emissions.



Air-Source (aerothermal) Heat Pumps

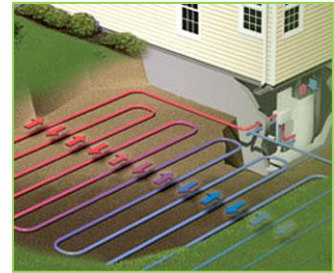


- When properly installed, an air-source heat pump can deliver 150% to 400% more heat energy to a home than the electrical energy it consumes.
- In reversible mode they can provide cooling as well.
- Air-source heat pumps do not only provide efficient heating and cooling via an air-to-air system, but also through an air-to-water mechanism, making efficient use of available natural resources



Geothermal Heat Pumps

- Geothermal heat pumps (GHPs) have been in use since the late 1940s. GHPs use the constant temperature of the earth reaching high efficiencies (300%-600%) during the entire season.
- The installation price of a geothermal system is offset by energy savings within 10-15 years. System life is estimated at 25 years for the inside components and 50+ years for the ground loop.



Water Source (hydrothermal) Heat Pumps

- An open-loop, ground-water heat pump, uses a surface or underground water source (such as a lake, river, or well) as the heat source and sink. Ground water source open-loop heat pumps use the same concept as ground source heat pumps. Water is taken from the ground or surface water, circulated to the individual heat pumps and then returned to the ground to the lake or pond.



Absorption Heat Pumps

- Absorption heat pumps are essentially air-source heat pumps driven not by electricity, but by a heat source such as natural gas, propane, solar-heated water, or geothermal-heated water. Because natural gas is the most common heat source for absorption heat pumps, they are also often referred to as gas-fired heat pumps. There are also absorption coolers, also called gas-fired coolers.

Operating and Maintaining Your Heat Pump

- As with all heating and cooling systems, proper maintenance is key to efficient operation.

EPEE - The Voice of the Heating, Cooling and Refrigeration Industry in Europe

The European Partnership for Energy and the Environment (EPEE) is made up of members who produce, design and install heating, cooling and refrigeration technologies.

EPEE's mission is to promote a better understanding of our industry in the EU and to contribute to the development of effective European policies to reduce the environmental impact of our products.