Heat Pumps: A Hot (and Cool) Technology

Efficiency Vermont

What is a heat pump?

It's an advanced-technology air conditioner that can also efficiently heat your home or business in winter. Heat pumps and air conditioners cool the same way, by using electrical energy to move heat from inside to the outdoors. But a heat pump has a reversing switch that lets you change its function from cooling to heating in winter—with the press of a remote control button.



Why would I want one?

- Heat and cool with one system—energy efficient, no ducting required.
- Use less energy for heating—about a third of an oil burning system to heat the same amount of space.
- Use less electricity for cooling—about 50% of a typical window AC.
- **Pro installation, done once**—no seasonal removal or reinstallation; windows can remain closed and secured in summer.
- Shhh... they run quiet! That's a big plus compared to many air conditioners.

- **Zone friendly**—heat and cool only the rooms you want to. "Multi-split" systems let you run several indoor units off of one outdoor unit.
- **Renewable compatible**—use the electricity generated by your solar panels or wind turbine to heat and cool your home.
- Financing and rebates—instant discounts through participating contractors (passed on to you), plus low-interest financing structured to suit your needs.





Types of heat pumps

Heat pumps move heat to (and from) various sources: air, water, or even the ground. Air-source heat pumps can be ducted—but ductless "mini-splits" are most common in homes and small businesses.





Why "mini-split"?

"Mini" refers to the system's small size—and "split" tells you it's made up of two distinct parts: an indoor air-handling unit and an outdoor compressor unit.

A few things to know...

- On the coldest, subzero days of the year, you may still need a supplemental heating source (for example, your current system). That's because heat pumps decrease in heat output and efficiency at very low temperatures.
- If you're switching from natural gas, wood, or pellets, a heat pump may not lower your heating bills. The fluctuation of fuel costs can offset the efficiency gains of a heat pump system.
- **One heat pump per room** (or a multi-zone set-up) is typically needed for whole-home heating (depending on your layout). A single heat pump costs about \$3,500 (installed); multi-zone systems run \$6,000 and up, depending on the number of units.

So, is a heat pump right for you?

We can help you determine if a heat pump makes sense for your home or business, walk you through rebates and financing, and connect you with a qualified contractor.



