

HOW MUCH WILL I SAVE WITH AN AIR SOURCE HEAT PUMP?

At the end of the day, we know this is one of the most important questions on the mind of every home and business owner. We've provided this guide to help you figure out what clean heating technology will give you the most bang for your buck.

Every building is different, so your actual savings will probably be different from what we've listed here. Take a look at the last page of this document to see what assumptions we're making for these savings: if you don't think our assumptions fit your building or you don't like the energy prices we're using, then change them up on the free calculator on our website here.

Potential future savings

If you want to install an air source heat pump, your savings will be dependent on what type of fuel you currently use for heating. Here are some figures on what the average 2,000 square foot home in Massachusetts could save by installing an air source heat pump system.

Potential Air Source Heat Pump Savings

Fuel Type	Oil	Electricity	Propane	Natural Gas
Fuel Cost	\$3.13/gallon	16 cents/kWh	\$3.09/gallon	\$1.38/therm
Average Annual Savings	\$250	\$1,230	\$1,000	\$(660)
Lifetime Savings (15 years)	\$5,400	\$20,200	\$16,800	N/A
Years to Payback	9.1 years	3.9 years	4.5 years	N/A

As you can see, the amount you can save on your energy bill depends largely on what type of fuel you currently use for heating. If you heat your home with electricity or propane, an air source heat pump system will save you thousands of dollars over the lifetime of the system. If you heat with oil, you will also be able to save money by installing an ASHP system. If you heat with gas, you won't save any money on heating, but you'll still save money on cooling because air source heat pumps provide more efficient air conditioning than most other cooling systems.

As we've said, every building and heating system is different, so your actual savings are likely to be different from what we've listed here. In general, here are some factors that can affect what you can expect to save:

- ⦿ **Fuel prices.** The more fuel prices go up in the future, the better your air source heat pump will perform.
- ⦿ **Air conditioning.** Air source heat pumps are more efficient than most other forms of home air conditioning. You can expect to save money if you are currently using another form of air conditioning (especially window units), or if you don't have A/C and were planning on installing a cooling system.
- ⦿ **House size.** The bigger your home is, the more heat pump units you will need to install, increasing the upfront cost of the system.
- ⦿ **Insulation.** If your home is particularly leaky, your heat pump won't perform as well (and if it's super leaky, we suggest you get a home energy audit and get some insulation work done as well as installing an air source heat pump to maximize your energy savings!)

Predicting the future of energy prices is hard...

...And we completely agree: nobody knows how much electricity, oil, or gas will cost next year, the following year, or five years from now. The potential future savings we've listed above are based on conservative predictions from government sources, and we would be remiss if we didn't point that out.

So how can you know if an air source heat pump will save you money in the future?

Here's another way to think about it: since we know what *past* energy prices were, how much would you have saved if you had installed an air source heat pump five years ago?

Savings if you had installed an ASHP 5 years ago

Fuel Type	Oil	Electricity	Propane	Natural Gas
Fuel Cost	\$3.73/gallon	16 cents/kWh	\$3.27/gallon	\$1.40/therm
Year 1 Savings	\$1,100	\$1,850	\$1,800	N/A
Savings over the last 5 years	\$5,600	\$9,200	\$8,900	N/A

Hindsight is, of course, 20/20. However, you can still start saving money today. You can even take advantage of a 0% interest loan through the [Mass Save Heat Loan Program](#).

Get started today. [Find a WePowr community near you.](#)

Assumptions

All savings here assume a Massachusetts home of 2,000 square feet that is up to the current energy code, occupied by a family of four.

Unless otherwise noted, the prices for the fuels listed are the Massachusetts averages from 2010-2014. Notably, oil prices dropped significantly in 2014. Base prices for oil and propane were drawn from Massachusetts averages for the 2014/15 winter. All escalators are derived from the U.S. Energy Information Administration [Annual Energy Outlook 2015 for New England](#) (CAGR based on 20-year period from 2015-2034).

- Oil: [Mass. Dept. of Energy Resources](#), 2.1%
- Electricity: [U.S. Energy Information Administration](#), 0.8%
- Gas: [U.S. Energy Information Administration](#), 1.8%
- Propane: [Mass. Dept. of Energy Resources](#), 0.9%
- Wood Pellets: [Mass. Dept. of Energy Resources](#) (Spring 2015 Price Survey), 2.5% (assumed, not tracked in EIA AEO)

All savings estimates assume that homeowners are able to take advantage of all available state and utility incentives, including:

- [MassCEC Clean Heating and Cooling program](#)
- [Mass Save COOL SMART Ductless Mini-Split Heat Pump Rebate Program](#) (average of lower rebate)
- [Mass Save Heat Loan](#) (0% interest loan)

Additional local incentives may also be available depending on your location. Discount pricing on the cost of the system available through a WePowr community is also not factored in.

We assume the following installed costs for the technologies discussed for the house in question (incentives not included):

- Air source heat pump: \$8,200

Unhappy with any of the assumptions we've made here? Visit the calculator on our website and change any or all of these and find out for yourself how much you could save.