

# HeatSmart Northampton: Pricing Guide



This pricing guide provides a detailed look at the prices of heat pump systems that will be installed through HeatSmart Northampton. Northampton has worked with its selected installer, **Express Plumbing, Heating & Solar Service LLC**, to set up transparent and standard pricing for Northampton residents and businesses participating in the program that could be **discounted by up to 10%** from the regional average.

These prices reflect the **base prices** that Express is offering to give you a sense of what to expect. Buildings in Northampton are pretty old and can be very different, and the final quote that you receive may differ from the prices listed here depending on the physical features of your home or business.

All of the heat pumps listed here are **high-efficiency, cold climate heat pumps** manufactured by Mitsubishi that will be **eligible for all rebates** offered by the Massachusetts Clean Energy Center (MassCEC) and Mass Save. Larger rebates are available from MassCEC if your household income is below 120% of the state median income or you are replacing electric resistance heating.

If you have further questions about this, we encourage you to attend a HeatSmart workshop to learn more and ask the installers about the pricing or reach out to [heatSMARTnorthampton@gmail.com](mailto:heatSMARTnorthampton@gmail.com).

Model Number	Capacity <sup>1</sup>	Number of indoor units	MassCEC Rebate <sup>2</sup>	Mass Save Rebate <sup>3</sup>	HeatSmart Northampton Price (Express)		MassCEC Regional Average <sup>4</sup>		Mass Save 0% interest HEAT Loan <sup>5</sup>
					Base price	Price after rebates	Base price	Price after rebates	Monthly Payments (over 7 years)
MUZ-FH09NA	9,000 Btu/hr	1	\$625	\$300	\$3,750	<b>\$2,825</b>	\$3,995	<b>\$3,070</b>	<b>\$44.64</b>
MUZ-FH12NA	12,000 Btu/hr	1	\$625	\$300	\$3,950	<b>\$3,025</b>	\$4,031	<b>\$3,106</b>	<b>\$47.02</b>
MUZ-FH15NA	15,000 Btu/hr	1	\$625	\$300	\$4,150	<b>\$3,225</b>	\$4,334	<b>\$3,409</b>	<b>\$49.40</b>
MUZ-FH18NA2	18,000 Btu/hr	1	\$625	\$300	\$4,450	<b>\$3,525</b>	\$4,710	<b>\$3,785</b>	<b>\$52.98</b>
MXZ-3C24NAHZ2	20,000 Btu/hr	2	\$1,302	\$200	\$7,254	<b>\$5,752</b>	\$8,198	<b>\$6,696</b>	<b>\$86.36</b>
MXZ-3C30NAHZ	30,000 Btu/hr	3	\$1,490	\$300	\$9,860	<b>\$8,070</b>	\$10,936	<b>\$9,146</b>	<b>\$117.38</b>
MXZ-4C36NAHZ	36,000 Btu/hr	4	\$2,344	\$400	\$12,850	<b>\$10,106</b>	\$13,449	<b>\$10,705</b>	<b>\$152.98</b>
MXZ-5C42NAHZ	42,000 Btu/hr	5	\$2,500	\$500	\$14,850	<b>\$11,850</b>	*	*	<b>\$176.79</b>

All systems include 12 year parts/compressor and 1 year workmanship warranties.

<sup>1</sup> Rated cooling capacity. Heating capacity varies by unit depending on the temperature.

<sup>2</sup> Assumes base rebate without income adders. <120% income adder increases rebate by 28%. <80% income adder increase rebate by 60%. If household heats with electric resistance heating, rebates increase by \$300 (for base and <120% income) and \$500 (for <80% income).

<sup>3</sup> Assumes installing maximum number of indoor units. Single-zone units are eligible for \$300/indoor unit rebate and multi-zone for \$100/indoor unit.

<sup>4</sup> Based on analysis of 146 rebate submissions to MassCEC from Hampshire County using the same heat pump models with all rebates included. Sample size too small for 5C42NAHZ. Costs for 3C24NAHZ2 with 2 indoor units not documented: costs for 2C20NAHZ (no longer eligible for rebates but comparably priced) provided.

<sup>5</sup> Assumes homeowner finances the entire cost of the system before rebates and pays back 0% interest HEAT Loan in 84 equal monthly payments over 7 years.

## FAQs

### What is included in the base price?

The base price for each model described in the table on the next page includes:

- ⦿ **The heat pump indoor and outdoor units**, as well as the labor costs for installing them
- ⦿ **20 feet of piping** to connect the indoor and outdoor units
- ⦿ **Mounting the system on the wall** to keep the outdoor unit clear of snow
- ⦿ **12-year parts and compressor and 1-year workmanship warranties**

### What factors could increase the cost of my system?

Our installers need to take into account a lot of different factors when pricing out heat pump systems. The most common cost adders include:

- ⦿ **Additional piping** to connect indoor and outdoor units. This could be significant for multi-zone systems with complex room layouts across multiple floors and is roughly \$20 per foot depending on the installer.
- ⦿ **Additional electrical work**, such as an added electrical subpanel to meet the increased electricity demand a heat pump will require.
- ⦿ **Different indoor units**, such as floor mounts, ceiling cassettes, and ducted indoor units will cost more.
- ⦿ **Additional labor costs for more complicated installations.** Northampton has homes of all shapes and sizes, and the needs of each homeowner can vary. This can lead to more complicated installations that will take more time to complete.

### How much could I expect to save by installing an air source heat pump?

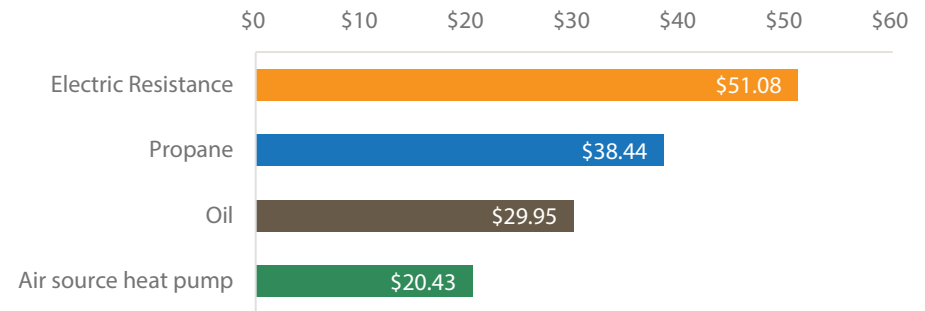
Heat pumps can offer many homeowners the opportunity to save on their energy bills. Each home is different, however, and the amount you may save on energy will depend on several factors, including:

- ⦿ **What heating fuel you currently use.** Heat pumps cost less to operate than oil, propane, and electric resistance heating. Homeowners that heat with efficient natural gas systems will not see significant energy savings from using a heat pump system.
- ⦿ **How efficient your existing system is.** Older, non-ENERGY STAR heating systems (e.g. old furnaces, steam boilers) tend to be less efficient, and homeowners with older systems could expect to save more.
- ⦿ **How much of your home heating load you expect your heat pump to provide.** Heat pumps can be sized and installed in a wide variety of applications—from heating and cooling just one or two rooms to your whole house. Your savings will depend on how much of your existing heating system's output is offset by the heat pump system.

It's impossible to know exactly how energy prices will change in the future—after all, oil prices were skyrocketed 4 years ago and dropped to near-record lows 2 years later! But if we average energy prices from the last 5 years, we would expect that for the same unit of heat, you could save:

- Up to **30%** compared to oil
- Up to **45%** compared to propane
- Up to **60%** compared to electric resistance.

**Average Massachusetts Heating Fuel Prices from 2012-2016 (\$/MMBtu)<sup>6</sup>**



### **If I have or want to install solar PV for powering my heat pump, how much electricity will my heat pump use?**

That depends on how much heat your heat pump system needs to provide (as well as how much you end up using it for air conditioning). Here are some general rules of thumb you could use to figure out how much a heat pump might affect your electricity usage:

- Your heat pump will use about 1,300 kWh for every 100 gallons of heating oil you displace.
- Your heat pump will use about 960 kWh for every 100 gallons of propane you displace.
- Your heat pump will reduce your electricity consumption by about 60% for every unit of heat generated by electric resistance you displace.

Each kilowatt (kW) of solar capacity you install would generate around 1,100 kWh per year. So a home that displaces 500 gallons of heating oil with a heat pump would need almost 6 kW of solar PV generation to power the heat pump with solar energy.

<sup>6</sup> Average residential retail oil, propane, and electricity prices for Massachusetts from 2012-2016 (EIA); 80% efficient oil boiler/furnace, 90% efficient propane boiler/furnace, annual coefficient of performance of 2.5 for ASHP.