



## Ground Source Heat Pump Pricing Summary



HeatSmart Bolton-Harvard has worked with its selected ground source heat pump (GSHP) installer, **Bill Wenzel Heating & Air Conditioning, Inc.** to establish transparent, discounted pricing for Bolton-Harvard residents.

The pricing provided on Page 3 reflects **base price ranges** that Bill Wenzel is offering for a typical GSHP installation. This reflects an approximate 10% **equipment discount** Bill Wenzel is offering below their typical prices.

However, most aspects of a GSHP installation are customized so it is hard to provide a standard price until Bill Wenzel—and their drilling contractor, Skillings & Sons—has visited your home. The homes in Bolton and Harvard are often pretty old and can be very different from each other (as well as the ground they're built on!). Also, some homes have useful infrastructure like existing ductwork that can make an installation more straightforward. So, it is likely that the quote you receive may be higher or lower than the base pricing to account for those factors. Even if you and your neighbor had exactly the same home and yard, your personal home comfort needs (e.g. for heating/cooling, equipment, optional add-ons) could significantly change the quote you receive for the same equipment.

As such, the pricing provided in this guide are ranges for what costs you could expect to see if you have a typical home with a heating load of approximately 60,000 Btu/hr (5 tons). See Page 2 for more information on what is assumed in the base pricing provided and what factors could drive up the cost of your system.

All of the models will be eligible for rebates offered by the Massachusetts Clean Energy Center (MassCEC) and will be eligible to receive Alternative Energy Certificates (AECs). Recently, the Federal Tax Credit was reenacted for GSHP, which will reduce the cost of the system by another 30%. Regardless of the options recommended, Bill Wenzel will work to make sure you fully understand the cost of the system and the incentives available to you.

If you have further questions about the pricing and equipment offered, we encourage you to attend a HeatSmart workshop to learn more and ask Bill Wenzel in person about pricing—or reach out to the HeatSmart Coach for your community at [boltoncoach@boltonharvardheatsmart.org](mailto:boltoncoach@boltonharvardheatsmart.org) or [harvardcoach@boltonharvardheatsmart.org](mailto:harvardcoach@boltonharvardheatsmart.org).

## What is included in the base price?

The base price for the systems described in the table on the previous page includes:

- ⦿ **A Ground Heat Exchanger** consisting of **two, 425-foot boreholes** with up to 40 feet of casing in and one u-bend per borehole for vertical closed loop systems.
- ⦿ **A retrofit of an existing home**, with existing ductwork or hydronic distribution system.

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

A lot of factors related to your home and preferences could increase the cost of your system. The most common cost adders include:<sup>1</sup>

- ⦿ **Additional drilling or excavation required** to ensure that boreholes and trenches are properly sized to meet your home's heating and cooling load and/or where soil and site conditions make drilling or excavation more difficult will increase the cost of your system. Additional piping, casing, and other materials needed for underground components, as well as site restoration can also increase costs.
- ⦿ **Larger or smaller systems** from the assumptions below could cause the total cost of the system to increase or decrease significantly, as the heat pump unit costs, pumping requirements, and drilling/excavation requirements will change.
- ⦿ **Additional electrical work**, such as an added electrical subpanel to meet the increased electricity demand a GSHP will require could add several hundred dollars to your system, depending on the state of your home's electrical service.
- ⦿ **Ductwork upgrades or repairs** will likely be necessary, as a lot of existing ductwork may not be adequately sized for a GSHP system. This could add approximately \$2,500-3,500 to the cost of your system, depending on the degree of upgrades needed. If you don't have ductwork, your system costs will be higher.
- ⦿ **Other building or site conditions** can make installing a GSHP system more challenging and labor-intensive and may make your system more expensive.
- ⦿ **Permitting fees** vary from town to town and are not included in the base price. In particular, Conservation Commission Permitting for wetlands will add even more costs and time to your installation.
- ⦿ **Additional optional upgrades** that can improve the performance of your system, including upgrading to a variable-capacity WaterFurnace 7 Series model, adding zoning control to your home, higher-conductivity grout for boreholes for higher performance, variable speed circulator pumps, variable frequency drive controllers, and more may add to the cost of the system.

Regardless of what additional factors may increase the cost of your system, Bill Wenzel will clearly explain to you the factors that are causing your quote to deviate from the base pricing provided above. For more information on the components of a ground source heat pump system, come to one of our events to meet the folks from Bill Wenzel, sign up for a free site visit, or visit our website at [www.boltonharvardheatsmart.org](http://www.boltonharvardheatsmart.org) to learn more.

---

<sup>1</sup> A full list of cost adders is provided on the HeatSmart Bolton Harvard website at [www.boltonharvardheatsmart.org](http://www.boltonharvardheatsmart.org).

## Ground Source Heat Pump Pricing Example<sup>2</sup>

Manufacturer /Model	Loop Configuration	MassCEC Rebate	AECs <sup>3</sup>	Federal Tax Credit <sup>4</sup>	HeatSmart Bolton Harvard Price (Bill Wenzel)					
					Base price range					Base price range after rebates/tax credits
					Heat Pump	Drilling/Trenching	Electrical	Excavation/Yard clean-up	Total	
Bosch Greensource or WaterFurnace 5 Series	Vertical Closed Loop	\$7,883	~\$5,200	-30% of installed cost	\$19,500	\$15,000	\$1,800	\$1,750	\$38,050	<b>~\$14,000</b>

Bill Wenzel offers a 1-year parts and labor warranty on all installations, covering all aspects of the installation by Bill Wenzel and its subcontractors. WaterFurnace offers a 10-year warranty on the indoor geothermal heat pump unit and 5-year labor allowance.

<sup>2</sup> These pricing ranges and incentive estimates assume a home with a heating design load of 60,000 Btu/hr. Your home may require a larger or smaller system once Bill Wenzel conducts a site visit, which could change the quote and size of rebates you receive.

<sup>3</sup> AEC value range based on 2,500 square foot home with AEC prices of \$15/MWh, minus an aggregator fee of 7%. The number of AECs you receive will be based on the square footage of your home, and their value may be higher or lower based on market fluctuations and depending on the fee from the aggregator you work with. Ask Bill Wenzel during your free site visit about the potential value of AECs for your home.

<sup>4</sup> The cost of ductwork modifications that may be necessary is not eligible for the federal tax credit.