## Vintage 1880's Home

Approximately 2,100 square feet – Concord, MA



## THE PROJECT

Achieve Renewable Energy, LLC. had the pleasure to work on a vintage home constructed in the 1880s. Achieve designed and installed a two-boring, vertical closed loop ground heat exchanger to supply the home's heating and cooling requirements.

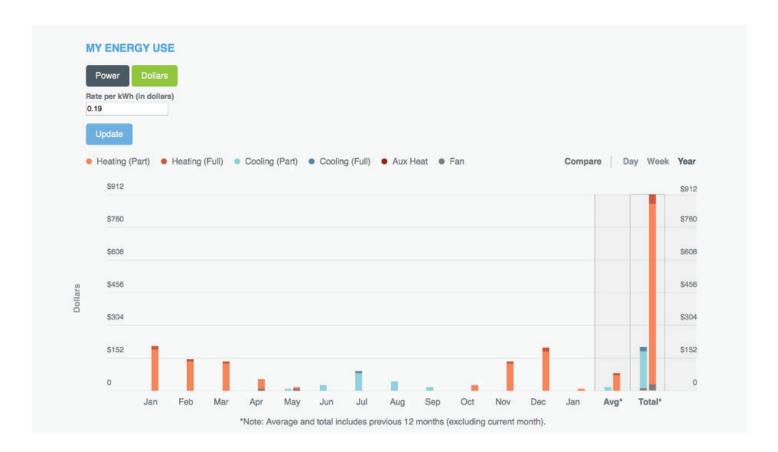
We and the Homeowner selected a WaterFurnace 5 Series ground-source heat pump (GSHP).

The GSHP was configured to support three independent heating and cooling zones. New custom ducting was installed throughout the home. During our work, the Homeowner upgraded key areas with spray foam insulation improving the home's energy performance.



## THE RESULTS

The result of these efforts is a much more comfortable home. The GSHP is a very efficient heating and cooling system. Achieve's installations include instrumentation, monitoring and Internet connectivity. With that information we can see operating cost for the equipment. The operating cost is shown in the chart, below.



The average heating and cooling cost for the home is well under \$100 per month. Think about this, a 2,100 square foot house from the 1880s with a GSHP and insulation upgrades is heated and cooled at a fraction of the cost of most homes, has a dramatically reduced carbon footprint, and eliminates the use of dirty fossil fuels. We are happy to have helped make a home from the 19th Century an example for the 21st Century.

