



# Your Home Energy Audit

## Home

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## Audit Date

Apr 3, 2018  
09:00 am

## Audited By

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## HEAT Squad

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Thank you for having me in your home and allowing HEAT Squad to help make your home more energy efficient.

As you will see in this report there are many opportunities to save money and be more comfortable in your home. A comprehensive energy retrofit has benefits beyond fuel savings such as increased building durability and increased comfort. Please consider these recommendations and look into low interest NeighborWorks financing to help make these recommendations an affordable reality!

Please let us know how we can help you moving forward.

## Inside Your Report

- Cover
- Concerns
- Solutions
- Upgrade Details
- Financing
- Metrics



## We listened to you!

As our client, we want to make sure we are addressing all of your concerns for your home. If we have missed any concerns in this report, please let us know right away.

# Concerns

## Save Money

Reduce fuel usage and lower your energy costs.

## Increased Comfort

## Lower Your Carbon Footprint

## Project Cost - \$1,635.60 Incentives

If you complete all of the air sealing and insulation measures outlined in the following report you will be eligible for the estimated Efficiency Vermont Incentives listed above. If you change the workscope or reduce the amount of work completed, you will likely receive less incentive money.

In order to receive any incentives, the project must get at least a 10% reduction in air leakage as measured by the HEAT Squad follow up blower door test. Additionally, any health and safety issues would need to be addressed and remedied before incentives are approved.

Check [www.encyvermont.com](http://www.encyvermont.com) for a comprehensive list of all available rebates and incentives.



# Solutions for Your Home

Call us today to ask a question or discuss the next step!

## Totals

### Approximate Cost

\$ 13,400

This is a ballpark guess. Ask your contractor for a detailed bid.

### Estimated Savings

\$1,680 per year

This is an estimate of how much you could save starting in Year 1. Savings will only increase as energy prices rise over the years.

### Impact of upgrades

Energy Reduction	37%
Carbon (CO2) Savings	7 tons
Equivalent cars removed from the road	1.5/yr

DETAILS	APPROXIMATE INSTALLED COST	APPROXIMATE ANNUAL SAVINGS
Switch to LED lightbulbs	\$ 100	\$ 60
Insulate Basement Walls	\$ 4,500	\$ 489
Insulate Crawl Space Walls	\$ 3,000	\$ 373
Airseal & Insulate Attic Flat	\$ 2,900	\$ 289
Reduce Air Leakage by 25%	\$ 500	\$ 194
Upgrade Water Heater	\$ 2,400	\$ 275
Heat Pumps and Solar		



# Insulate Basement Walls

## BASEMENT

### Approximate installed cost

\$4,500

### Energy Savings

Approx. \$489

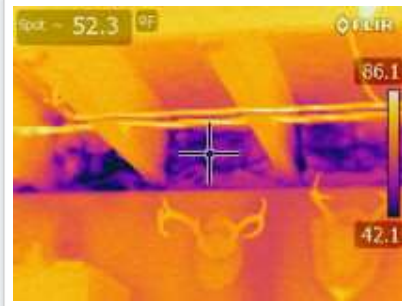
### Why it matters

Insulating your basement walls will increase the overall temperature of your basement and make the floors above more comfortable. If heating systems are located in the basement the systems will function more efficiently. This is the most often recommended weatherization measure due to it's relative simplicity, and high return on investment.



Spray foam insulation on the interior surface of at least the top 4' of basement walls or a minimum 2' below foundation exposed to the exterior where possible.

Any exposed foam must include a 15 minute ignition barrier.



Remove existing fiberglass if present in box sills and replace with either spray foam or rigid foam. If rigid foam is utilized, care should be taken to assure complete air sealing of box sills and top plate(s).



By insulating the interior of your foundation, you will be able to eliminate tremendous amounts of heat loss that can be seen in this IR images from the outside.



# Airseal & Insulate Attic Flat

## ATTIC

Approximate installed cost

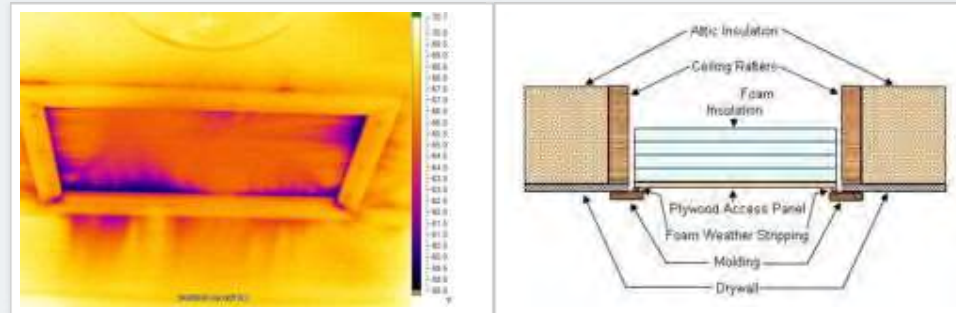
\$2,900

Energy Savings

Approx. \$289

## Why it matters

Adding insulation to your attic can lead to a significant reduction in your energy costs. This process will be combined with careful air sealing of the attic to ensure the new insulation performs at its maximum level.



Openings used for access to the attic such as hatches and scuttles, doors into knee walls, and drop-down stairs should be air sealed and insulated.



Any attic work must first start with creating a comprehensive air barrier along the attic floor. In many homes, especially older homes with plaster and lathe, the best way to fully seal the attic flat is with a continuous layer of closed cell spray foam.



A thick blanket of cellulose can be installed after air sealing to bring your attic to the R50 energy code and beyond. Cellulose is a recycled newspaper product and is treated to be both fire and rodent resistant. The image on the left is your attic and the image on the right is what your attic might look like after an insulation upgrade project.



# Reduce Air Leakage by 25%

## AIR LEAKAGE

Approximate  
installed cost

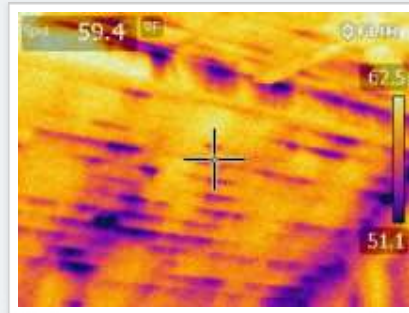
\$500

Energy Savings

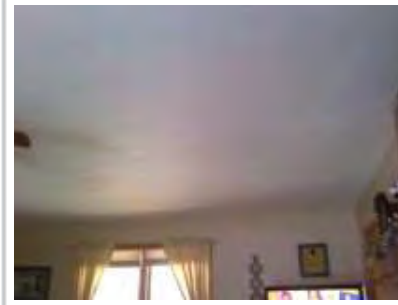
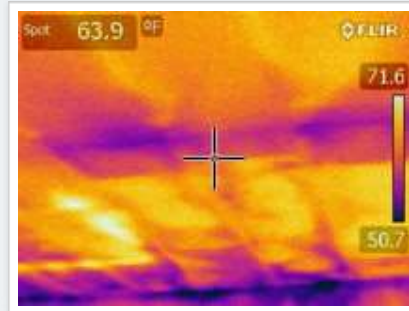
Approx. \$194

## Why it matters

Air sealing is typically the most cost effective improvement you can make to your home. What ends up having the most profound impacts on reducing air leakage rates are retrofits to entire sections of your home's thermal boundary. Installing or establishing air barriers in attics, sloped ceilings, kneewalls, basements, and crawlspaces where none is present will dramatically increase the comfort of your home and help you save significant energy.



Your home is very leaky, as measured by the blower door test. Your blower door number was **4500 CFM50** and that equates to you heating the volume of air in your house **19.5 times a day**. To put that in context, the average Energy Star home is measured at 8 air changes a day.



Your extremely high air leakage rate is less about specific areas of leakage and more a result of systemic thermal boundary and air barrier flaws in the building envelope. There was never any intention when the home was built, 100 plus years ago, for the home to be airtight. There is no house wrap, no blocking, open interior wall tops, etc. There is no air barrier in the attic space, the exterior walls are not air tight (and largely empty), and the basement is very leaky as well.

What ends up having the most profound impacts on reducing leakage rates are systemic retrofits to entire sections of your home's thermal boundary when completed by a BPI certified Home Performance Contractor. Installing or establishing air barriers in attics, sloped ceilings, kneewalls, basements, and crawlspaces where none is present is the way to most effectively reduce your home's air exchange.



## About financing

The loan scenario(s) listed are examples only and are not a formal offer of financing. Rates, terms and closing costs and eligibility requirements may vary.

# Financing

## Energy Loan

### THE MATH

Job Cost	\$13,400
Cash down and/or Incentives	\$ 1,636
Loan amount	\$ 11,764
Your loan payment: 4.99 % @ 120 months	\$ 125
Estimated energy savings	\$ 140
Net Monthly Savings	\$ 15

### TERMS & CONDITIONS

Minimum Loan	\$ 2,500
Maximum Loan	\$ 40,000
Min. Cash Down	\$ 0
Rate	4.99 %
Term	120 months
Min. FICO Score	620
Closing costs	250

### DESCRIPTION

Can be used for Thermal Shell improvements, Weatherization, Heating and Ventilation, Heat pump Technology Energy Efficient Appliances and Renewable Energy. Rebates are estimated

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