

## Home

Sample Customer  
123 Sample Street  
Reading, MA 01867  
(123) 456-7890  
Sample@gmail.com

## Assessment Date

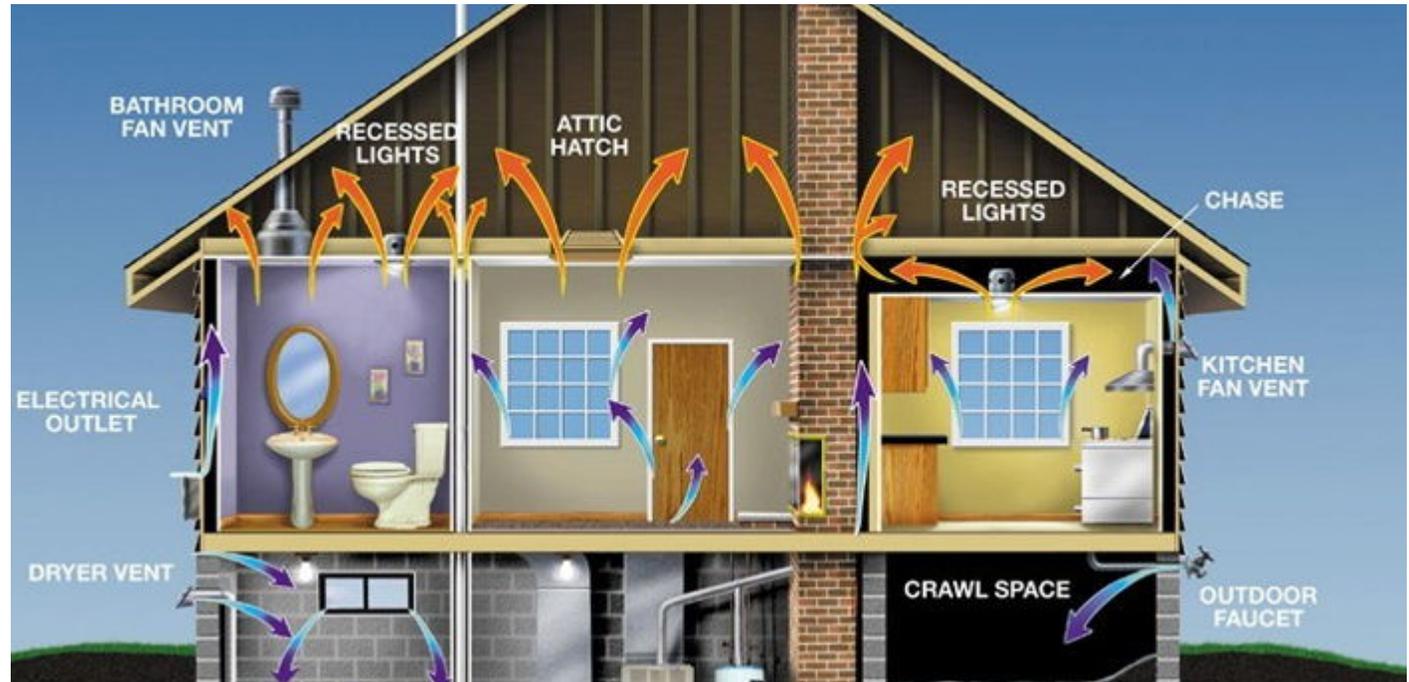
Aug 31, 2022  
12:00 PM

## Energy Advisor

**Anthony Fonseca**  
afonseca@ene.org

## ENE

5 Hampshire St.,  
Suite 100  
Mansfield, MA 02048  
Office 888-772-4242  
M - F 8:00 - 4:00



Energy New England is pleased to provide you with a comprehensive Home Energy Assessment Report on behalf of your local utility. We hope that you find this report to be a valuable guide to understand your home's energy usage and a roadmap in making your home more energy efficient. For more information about the recommendations provided in this report, please go to <https://ene.org/ene-sustainability> We welcome referrals to neighbors. Have them call Energy New England at 888-772-4242, or go to <https://ene.org/hea> to take our intake survey. Thank you!

## Inside Your Report

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**We listened to you! 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

## Concerns about your home or energy usage:

Web Survey Ref ID: 012345.

New Home owner

looking for assessment of insulation and general energy efficiency

## Roadmap to Savings

The Solutions page of the report will provide you with a list of recommendations for investment in energy efficiency and savings upgrades to your home. To get the most 'bang for your buck' start with the projects with the highest Savings to Investment Ratio (SIR). A SIR is a calculation that takes the annual savings multiplied by the # of years you should get that savings for, divided by the cost (Annual Savings X years)/Investment = SIR. All projects with a SIR of 1 or higher is a good idea and should be considered.

## This Report

Solutions: A prioritized list of recommended projects

Massachusetts Home Energy Scorecard: Allows you to compare your energy use and carbon footprint to the average MA home and how you will compare if you make the recommendations in the report

Rebates & Incentives: offered by your Municipal Utility

# Seal Air Leaks and Control Ventilation

## AIR LEAKAGE

### Installed cost

\$500

### Annual Energy Savings

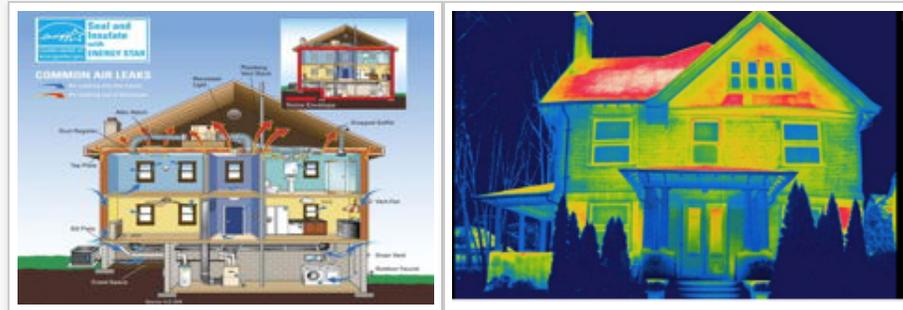
Approx. \$101

### Savings to Investment Ratio

3

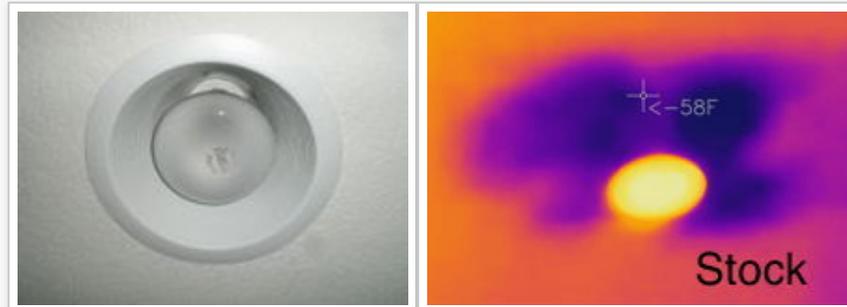
### Why it matters

In colder climates, air sealing is typically the most cost effective improvement you can make to your home. To help identify possible areas of air leakage, we often use infrared cameras. A good air sealing job will increase the comfort of your home and help you save significant energy, which along with proper ventilation can also improve indoor air quality. For more information <https://ee.ene.org/recommendations/air-sealing>



Even with insulation in place, the average American home can leak its volume of air in less than an hour. Thus your heating system will need to run every hour to replenish just for air leaks. These leaks don't necessarily provide fresh air, they're often allowing more dirty air from the basement and heating equipment into your home, and moisture into your attic. Proper air sealing should be performed with combustion and blower door testing.

Even with insulation in place, the average American home can leak its volume of air in less than an hour. Thus your heating system will need to run every hour to replenish just for air leaks. These leaks don't necessarily provide fresh air,



Typical Air Leakage at Can Lights: Recessed lights should be IC (Insulation Contact) rated in order to have insulation installed over them safely.



Typical Air Leakage at Electrical Outlet, on exterior walls: Outlet gaskets go behind switch and wall plates to stop heat loss.

# Seal Air Leaks and Control Ventilation

## AIR LEAKAGE

### Installed cost

\$500

### Annual Energy Savings

Approx. \$101

### Savings to Investment Ratio

3

### Why it matters

In colder climates, air sealing is typically the most cost effective improvement you can make to your home. To help identify possible areas of air leakage, we often use infrared cameras. A good air sealing job will increase the comfort of your home and help you save significant energy, which along with proper ventilation can also improve indoor air quality. For more information <https://ee.ene.org/recommendations/air-sealing>



### Moisture Control:

Bath and kitchen venting should be in an insulated duct connected to a flapper venting directly outside. This will reduce moisture in the home and into the attic space.



### Ice dams :

If snow melts oddly on your roof; Proper ventilation and air sealing in an attic is the most cost effective way to reduce the chance of ice dams. Heating coils on the drip edge use a lot of electricity and are usually not

needed if the attic is correctly ventilated and air-sealed. If needed, they should be professionally installed and controlled by a weather sensing thermostat.

## Notes to Homeowners

See appendix for definitions

# Attic Access Hatch / door

## CUSTOM MEASURE

### Installed cost

\$35

### Why it matters

Any openings that lead from your heated space to the attic or crawlspace will allow heat to escape from your home. It is therefore advised to weatherstrip and insulate any of these hatch doors, as a very simple low cost savings measure. Cost and savings are typically \$20-\$75 annually. See: <https://ee.ene.org/products/weatherization/>



Typically an uninsulated attic hatch is one of the biggest leaks in a home. Insulate the hatch to your attic or crawl space.



Typically an uninsulated attic hatch is one of the biggest leaks in a home. These should be covered with a rigid board insulation box, insulated tent or dome. If attic access is tight an attic tent may fit better for an attic pull down.



A Thermodome is a good way to insulate over a pulldown stairway.

# Insulate Attic

## ATTIC

### Installed cost

\$500

### Annual Energy Savings

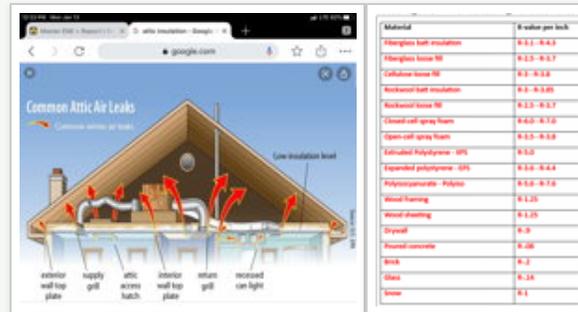
Approx. \$2

### Savings to Investment Ratio

0.1

### Why it matters

Attic insulation is among the most cost effective measures you can do. There are various types of insulation from rolled out batt to blown in cellulose, fiberglass, and spray foam. Adding insulation to your attic and combining with air sealing can lead to a significant reduction in your utility bills. For more information visit: <https://ee.ene.org/recommendations/insulation/>



Today's building codes require R49 insulation in an attic. The ideal attic has a vapor barrier with 15" of insulation. If adding more insulation, you may use unfaced fiberglass, or loose blown-in Cellulose. Both are good insulation with flame retardants. Loose insulation will fill gaps more effectively.

## Notes to Homeowners

Only in the sunroom

# Insulate Walls

## WALLS

### Installed cost

\$1,000

### Annual Energy Savings

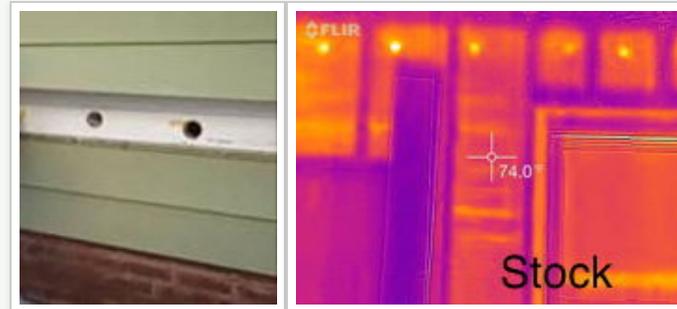
Approx. \$40

### Savings to Investment Ratio

0.8

### Why it matters

Uninsulated walls can account for the greatest amount of heat loss in a home since they often are the largest surface area in the home. Insulating your walls can lead to a significant reduction in utility bills. This is done by drilling small holes in the wall cavities either from the inside or outside and filling the space with cellulose, fiberglass, or even foam insulation. If it's time to replace your exterior siding, be sure to ask your contractor about adding a 1" or greater layer of rigid foam underneath the new sheathing. For more



a hose into the holes, filling every part of the wall cavity.

Insulate exterior walls:

"Dense packing" cellulose insulation in your wall cavities dramatically reduces air leaks and drafts. To install the insulation, contractors will lightly pry up a few rows of siding on your house and temporarily remove it. They will then drill a 2" hole in the sheathing for each wall cavity. A blower pushes cellulose insulation at high speed through

## Notes to Homeowners

Only in the sunroom

# Cooling Systems

## COOLING SYSTEM

### Installed cost

\$9,000

### Annual Energy Savings

Approx. \$227

### Savings to Investment Ratio

0.4

### Why it matters

Air conditioner efficiencies have risen dramatically recently. Depending on the age of the unit, substantial savings may be gained by replacing your unit with an Energy Star rated appliance. Choose a high efficiency Energy Star unit (18 SEER or higher). For more information visit: <http://ee.ene.org/recommendations/cooling-and-heating/>



Consider installing an ENERGY STAR rated or higher efficiency unit (18 to 21 SEER) air conditioning unit. Keep the pad on which the AC unit sits level, shaded and maintain at least one foot from the home and any other obstructions.



### Mini splits:

Sometimes called ductless air conditioners, mini-splits are a type of heat pump and have become a common way to provide cooling and heating to two or three areas from one outside compressor. Their efficiencies have risen dramatically in the past ten years, and may be suitable for conditioning some or all of your spaces. Cooling efficiencies are reaching 22 SEER, and heating efficiency as rated by HSPF, are exceeding 12.0, which is 60% greater efficiency than standard electric resistance heating, this makes them suitable for below 0.



### Window Air conditioners:

New Energy Star air conditioners can be fairly economical to purchase and run. Make sure they are sealed at the top of window meeting rail. Only run when room is occupied, clean filter regularly, and direct vent upward, since cool air sinks to the floor.

# Heating Systems

## HEATING SYSTEM

### Installed cost

\$10,500

### Annual Energy Savings

Approx. \$-124

### Savings to Investment Ratio

0

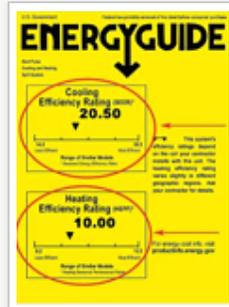
### Why it matters

Your heating equipment is the most important factor in the consumption of energy in your home. Newer heating systems can reach efficiencies up to 97% and can modulate to accommodate temperature extremes. Typical heating system last 20 years. If you're heating with gas, look for a sealed combustion unit. They're much safer since the exhaust pathway from the unit is sealed and goes directly outside. For more information visit: <https://ee.ene.org/recommendations/heating/>



### Furnace:

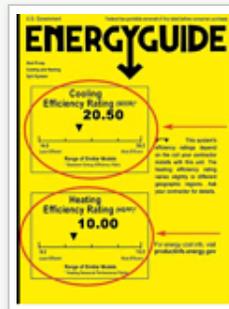
Upgrade your furnace to a 95-98% efficient, sealed combustion system. The best models use a multiple speed fan for comfort and energy savings. A newer model will reduce your risk of carbon monoxide poisoning.



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exceeding 12.0, which is 60% greater efficiency than standard electric resistance heating, this makes them suitable for temperatures in the single digits.



### Heat Pumps:

Since municipal electric rates are lower than average, you may consider a Cold climate Heat Pump for both cooling and heating. Newer systems can handle New England weather and run much more efficiently than earlier models. Look for Energy Star models with the highest 18+SEER (Seasonal Efficiency Ratio) and 10+ HSPF (Heating Season Performance Factor). This has the added plus of non-fossil

fuel heating.

<https://www.abode.energy/participating-contractor-list>

# Heating Systems

## HEATING SYSTEM

### Installed cost

\$10,500

### Annual Energy Savings

Approx. \$-124

### Savings to Investment Ratio

0

### Why it matters

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### Space Heaters:

CAUTION Do not leave unattended and only plug directly to wall outlet.

All electric space heater's are 99% efficient. Their use can save \$ where electric rates are lower than oil/propane costs, and you only need to heat a small area for a limited time.

# Wrap pipes

## CUSTOM MEASURE

### Installed cost

\$60

### Why it matters

Wrapping the hot water pipes on your water heater or steam systems in unconditioned spaces will typically save as much energy as it costs to accomplish the work. For instance it is likely to save ~\$60 a year and cost~ \$60 worth of materials.



Foam sleeve type insulation works well on water heating pipes. The first 6 to 10 feet closest to the water heater provide the most benefit to insulate.

# Water Heaters

## WATER HEATER

### Installed cost

\$3,900

### Annual Energy Savings

Approx. \$29

### Savings to Investment Ratio

0.1

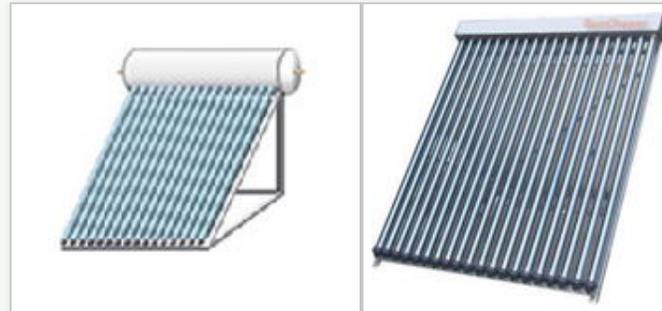
### Why it matters

Water heating is typically the second biggest energy consumer in the home. Highly efficient water heaters save energy and are safer. Older units run the risk of leaking. Consider replacement if your water heater is 12 or more years old. For more information visit: <https://ee.ene.org/recommendations/water-heaters/>



### Tankless water heaters:

Typically, tankless water heaters are about 20% more efficient than tank-style heaters. If you have hard water, we caution on tankless units because minerals from the water can precipitate out inside the heat exchanger, leading to increased maintenance costs. Sometimes demand can exceed supply.



### Solar Water Heater:

Add a solar water heater to your current hot water system. Even in New England up to 80% of your hot water can be produced from the sun.



### Electric Hybrid Heat Pump Water Heater:

An Electric hybrid heat pump water heater is up to 50% more efficient than traditional styles. They extract heat, dehumidify and cool the space they're in, therefore they need air space around them. Their exhaust can be ducted to the exterior, crawlspace, or basement for dehumidification. They can run in heat pump mode which is most efficient, or can be hybrid for high demand. There is typically an air filter at the top that needs to be cleaned two or three times a year.

# Lighting

## LIGHTING

### Installed cost

\$20

### Annual Energy Savings

Approx. \$62

### Savings to Investment Ratio

21.7

### Why it matters

Replacing incandescent bulbs with LEDs will save significant energy and replacement costs over time. More Lighting and appliance information can be accessed from the link below <https://ee.ene.org/recommendations/appliances/>



Can lights should be replaced with new LED lights. This will reduce heat gain, save on energy, and prevent any heat related issues with the attic insulation.



LED's come in many shapes sizes and colors. They work on dimmers, start instantly, and last up to 15 years. When disposing of old fluorescent bulbs, recycle properly to capture the small amount of mercury within them (same with old thermostats)



Color is determined by Kelvin temperature, brightness is determined by lumens, wattage is energy consumed. LED is the most efficient, and can be any variety of colors from day light, to warm, to soft white.

# Lighting

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\$20

### Annual Energy Savings

Approx. \$62

### Savings to Investment Ratio

21.7

### Why it matters

Replacing incandescent bulbs with LEDs will save significant energy and replacement costs over time. More Lighting and appliance information can accessed from the link below <https://ee.ene.org/recommendations/appliances/>



LED's can be retrofit to halogen fixtures also, and burn much cooler.

# Doors

## DOORS

### Installed cost

\$350

### Annual Energy Savings

Approx. \$0

### Savings to Investment Ratio

0

### Why it matters

Your home's exterior doors can contribute significantly to air leakage, and can also waste energy through conduction. Weatherstripping can reduce the energy losses due to air leakage. Adding storm door(s) or replacing your current exterior door(s) with insulated ones will help save energy and help reduce drafts. Glass doors of any variety are calculated as windows when considering energy efficiency factors.



Upgrade to insulated doors:

When selecting doors for energy efficiency, it's important to first consider their energy performance ratings in relation to the local climate and your home's design. Fiberglass is the best insulated material for doors.



Adding a storm door can be a good investment if your existing prime door is old but still in good condition. However, adding a storm door to a newer, insulated door is not generally worth the expense, because you won't save much more energy. Avoid a glass storm door if the exterior door gets direct sun each day. The glass will trap heat against the entry door and could damage plastic trim.

# Solar

PV

## Installed cost

\$22,000

## Annual Energy Savings

Approx. \$-0

## Savings to Investment Ratio

0

## Why it matters

Install a solar PV (photovoltaic) system to offset electric energy consumption in your house. A PV system can reduce or even eliminate your electric bill entirely. The DOER and your local utility may offer a rebate with the MLP Solar Rebate Program. Visit our website for more information: [www.ee.ene.org/solar/](http://www.ee.ene.org/solar/)



<https://www.mass.gov/guides/municipal-light-plant-solar-rebate-program>  
<https://www.masscec.com/cost-and-performance>

After you have done all to reduce energy use, you may consider an investment in producing solar photovoltaic energy. State, local, or Federal credits are available. Good unbiased information can be found at <https://www.masscec.com/solar-costs-performance>

<https://www.mass.gov/guides/municipal-light-plant-solar-rebate-program>

# Health & Safety

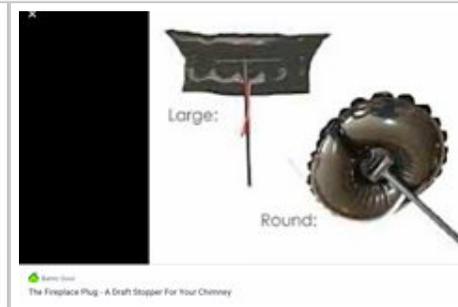
## What's This?

These are common areas for potential health and safety concerns in your home.



### Venting / Dryer

Dryers should be vented properly with 4" metal flexible transition hose and then rigid metal for concealed ducting. Clean the lint out of the dryer after every load, and up the vent yearly.



Fireplaces generally lose more heat than they provide, and are rather dirty burning. You should close dampers when not in use. Consider a glass enclosure, or an added chimney draft stopper if your flue is not well sealed, as heat

will constantly leave your home up the flue.



### Low Level Carbon Monoxide Monitor

CO detectors are highly recommended in homes with fuel-burning appliances (oil, gas, wood, propane, etc.), on each floor and near sleeping areas. The detectors signal homeowners via an audible alarm when CO levels reach potentially dangerous levels.

# Health & Safety

## What's This?

These are common areas for potential health and safety concerns in your home.



### Mold and Moisture:

Moisture control is the key to mold control. Molds need both food and water to survive; since molds can digest most things, water is the factor that limits mold growth. Molds will often grow in damp or wet areas indoors. Common sites for indoor mold growth include bathroom tile, basement walls, areas around windows where moisture condenses, and near leaky water fountains or sinks. Common causes of water or moisture problems include roof leaks, deferred maintenance, condensation associated with high humidity or cold spots in the building, localized flooding due to plumbing failures or heavy rains, slow leaks in plumbing fixtures, and malfunction or poor design of humidification systems, poor drainage around the home.



### Tune Ups:

Oil is a high carbon fuel; Burners should be cleaned and tuned yearly for safety and efficiency.

# Miscellaneous Topics

## ADDITIONAL NOTES

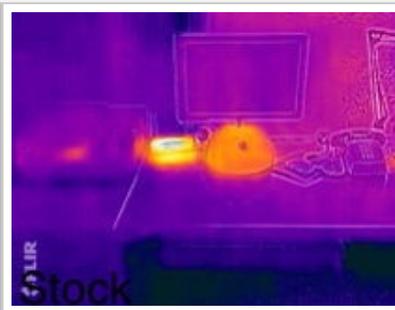
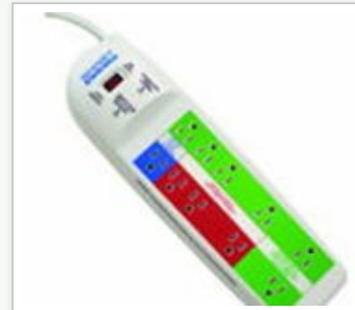
### More energy saving tips

Here are some additional tips that will help you save energy and money.



### Air Filters:

Check your filter every month, especially during heavy use months (winter and summer). If the filter looks dirty after a month, change it. At a minimum, change the filter every 3 months. Pleated filters remove more dust particles.



### Smart Strips:

Consider using “smart strips” in your home. Anything that is plugged into an outlet tends to draw a “phantom” current, even when it is not on. Cable boxes, computers, and video equipment are among the highest users. Smart strips can help reduce this wasted energy by shutting off

peripherals when the main device is shut off.



### Water Sense:

Save water and protect the environment by choosing WaterSense labeled products in your home. Showering is one of the highest uses of water in the home. Newer water saving showerheads can use as little as 1.5 gallons per minute and still deliver a massage and forceful spray. Save water, sewer, and the fuel to heat the

water.

# Miscellaneous Topics

## ADDITIONAL NOTES

### More energy saving tips

Here are some additional tips that will help you save energy and money.



### Dehumidifying:

Dehumidifiers use a lot of energy. Run a basement fan in early summer, then once it's muggy outside set at 55-60%. This is typically only needed May- September.



### Clothes dryer:

New Energy Star Heat Pump dryers reduce energy use by 50%. Try to run full loads, clean the lint trap every load and use the sensor setting; Clean the vent annually. When weather allows, consider air drying some items on an outside clothesline or drying racks indoors.



### Fans:

Fans are considerably less expensive to run than A/C. Since fans cool people not rooms, run only when someone is present. Ceiling fans for a cathedral ceiling should run up ,clockwise, in winter at low speed, down in summer. Often in the winter

the windchill affect of the fan negates any energy savings of bringing the heat back down.

# Miscellaneous Topics

## ADDITIONAL NOTES

### More energy saving tips

Here are some additional tips that will help you save energy and money.



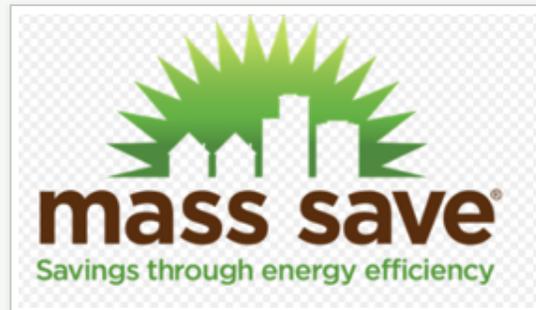
also solar powered versions.

**Attic Exhaust Fans:**  
Attic exhaust fans aren't necessary if your attic is well sealed and insulated. These fans only need to run if the heat is excessive (100 degrees) or if you access the attic space often. There are



### Hot Roofs:

Insulating the underside of a roof should only be considered if the attic space is conditioned or there is equipment in the attic that cannot stand to freeze. It is typically more cost effective to air seal and insulate an attic floor than a roof.



### Mass Save:

If you HEAT, with Natural Gas, you may look into rebates from Mass Save. Call 866-527-7283 for more information, or

<https://www.nationalgridus.com/media/pdfs/resi-ways-to-save/gas-growth/residential-rebate.pdf>

# Miscellaneous Topics

## ADDITIONAL NOTES

### More energy saving tips

Here are some additional tips that will help you save energy and money.



### Reduce Energy Demand:

On peak days—usually the hottest or coldest days of the year, usually between 3-8 pm, electricity demand soars, and the high electric demand is met by the most expensive, dirty fuels. Adjust your thermostat to reduce energy during these times and delay your energy use by waiting until after 8 pm to run the dishwasher, laundry, or cook in electric ovens.



Electric vehicles: Plug-in electric cars, SUVs and even trucks are becoming more available than ever. Because municipal electric rates are much lower than investor-owned utility rates, charging at home overnight can be as low as \$1.50/gallon equivalent to gasoline. Visit [www.ev.ene.org](http://www.ev.ene.org) to learn the many financial

and environmental benefits and any EV programs and incentives your utility already offers. <https://ev.ene.org/>

selfhelpinc.org

Number in Household	60% of Estimated State Median Income
1	\$37,360
2	\$48,855
3	\$60,351
4	\$71,846
5	\$83,341
6	\$94,837

### FUEL ASSISTANCE

If your income eligible, you may qualify for fuel assistance, which gives you funds to help purchase heating fuel, and weatherization, which will insulate your home at no cost. You may 1-800-632-8175 to find your local agency.

## Miscellaneous Topics

### ADDITIONAL NOTES

#### More energy saving tips

Here are some additional tips that will help you save energy and money.



Induction cooking.

Quicker ,safer ~10% more efficient. Need flat metal pans.

# Insulate Basement

## ADDITIONAL NOTES

### More energy saving tips

Here are some additional tips that will help you save energy and money.

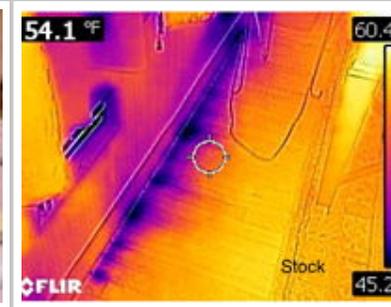
### Why it matters

Insulating your basement walls will increase the overall temperature of your basement and make the floors above more comfortable. A fiberglass blanket with a vinyl backing can be installed along the basement walls. For more information visit: <http://ee.ene.org/recommendations/insulation/>



### Continuous Insulation:

If the basement is a heated space, then insulating the walls is suggested.



Insulated & Sealed Rim Joist: The rim joist, often called the sill, is a major source of home heat loss, see the cold floor. It may

be sealed and insulated with foam or fiberglass batts.

# Thermostat set points

## ADDITIONAL NOTES

### More energy saving tips

Here are some additional tips that will help you save energy and money.

### Why it matters

Installing a smart or programmable thermostat will help you to use less energy when you're not at home or when you're sleeping. These thermostat settings are the industry standard for energy efficiency. Try these settings to see how they match with your comfort zone, and adjust by small degrees if necessary.

<https://ee.ene.org/recommendations/miscellaneous-topics/>



every degree of temperature turn down. HEAT PUMPS are an exception, they operate best with limited turn downs.

Programmable thermostats can save a significant amount of energy, especially for occupants who leave home during the day, or have zones unoccupied. Energy Star estimates a 2% savings for

# Windows

## ADDITIONAL NOTES

### More energy saving tips

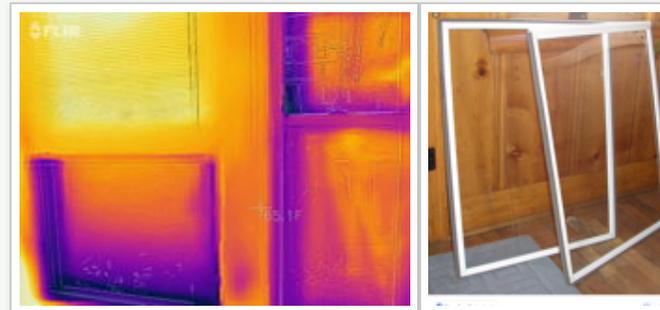
Here are some additional tips that will help you save energy and money.

### Why it matters

Adding storm windows, solar screens or replacing your current windows can save energy and help reduce drafts or solar gain. However replacing windows is very expensive and therefore is not usually a cost saving investment.



A typically expensive measure, but, if needed, replace Windows with new energy efficient Energy Star models. Insulated window treatments, weatherstripping, and interior storms will reduce heat loss at lower costs.



This is an infrared photo of a typical window with a cellular window treatment warming the top window. Use window treatments or interior storms to insulate your windows.

# Refrigerator and Freezer

## ADDITIONAL NOTES

### More energy saving tips

Here are some additional tips that will help you save energy and money.

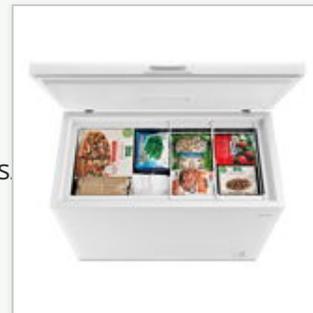
### Why it matters

Old refrigerators and freezers can often cost twice as much to operate as a new ones. Energy Star units can use half the energy as older, less efficient models.

<https://ee.ene.org/recommendations>



Extra fridge, consider using it part time, summer and/or holidays, and unplug it when it's not in use. Otherwise keep it relatively full will help it to hold cold. If it's in a cold or hot garage it will consume more energy and often creates freezer burn.



A top loading freezer will generally use less energy than a chest style. Keeping the unit relatively full helps it retain cold. Avoid placing in a hot or cold garage.



# Solutions for Your Home

## Totals

### Cost

\$ 47,865.00

### Estimated Savings

\$331 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.

### Savings to Investment Ratio\*

For Package: 0.1

### Impact of upgrades

Energy Reduction	46%
Carbon (CO2) Savings	1 tons
Equivalent cars removed from the road	0.2/yr

Make smart decisions about how to save on your energy bills!

DETAILS	INSTALLED COST	APPROXIMATE ANNUAL SAVINGS	SIR *
Seal Air Leaks and Control Ventilation	\$ 500.00	\$ 101	3
Attic Access Hatch / door	\$ 35.00		
Insulate Attic	\$ 500.00	\$ 2	0.1
Insulate Walls	\$ 1,000.00	\$ 40	0.8
Cooling Systems	\$ 9,000.00	\$ 227	0.4
Heating Systems	\$ 10,500.00	\$ -124	0
Wrap pipes	\$ 60.00		
Water Heaters	\$ 3,900.00	\$ 29	0.1
Lighting	\$ 20.00	\$ 62	21.7
Doors	\$ 350.00	\$ 0	0
Solar	\$ 22,000.00	\$ 0	0

\* SIR is the Savings to Investment Ratio. Simply put, if the SIR is 1 or greater, then the energy savings from the item will pay for itself before it needs to be replaced again. This metric is used to help prioritize the recommendations by financial merit.

This scorecard compares home energy use and carbon footprint to an average home in MA, and shows improvements based on recommended technology.

## ABOUT

Address  
**123 Sample Street , Reading, MA 01867**

Year Built: **1948**      Sq. Footage: **1700**

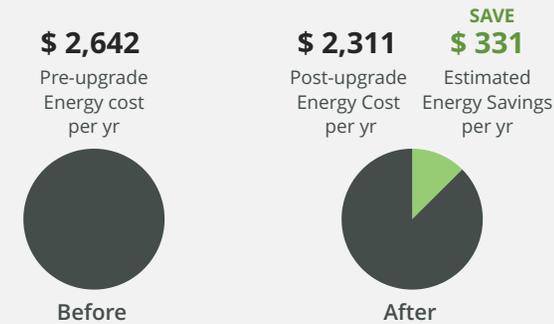
# of Bedrooms: **3**      Primary Heating Fuel: **Natural Gas**

Assessment Date: **08/31/2022**      Energy Specialist: **Anthony Fonseca**

## YEARLY ENERGY USE

Electricity: **6,482 kWh**      Natural Gas: **802 therms**

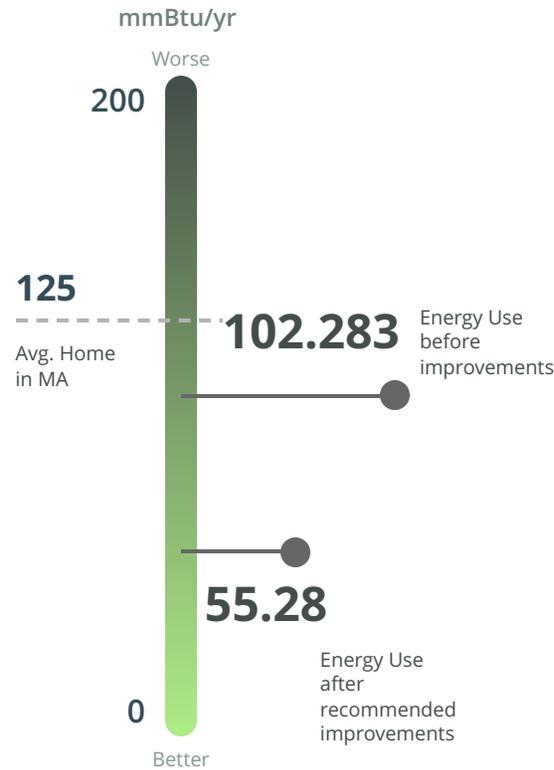
## YEARLY COSTS & SAVINGS\*



Electricity: \$ 0.19/kWh, Natural Gas: \$ 1.76/therm.

## HOME ENERGY USE

This shows the estimated total energy use (electricity and heating fuel) of your home for one year. The lower the energy use, the better!

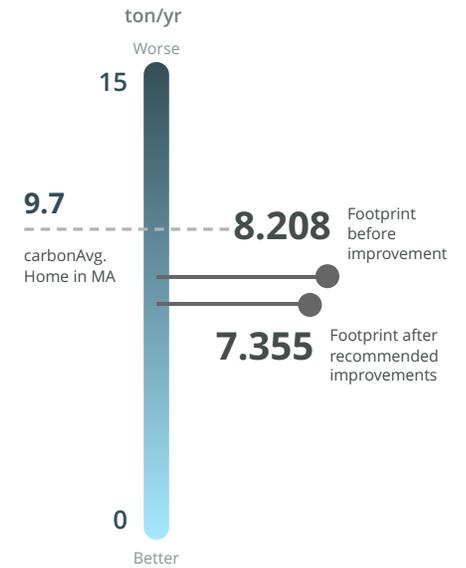


Estimated percentage of energy use by fuel type:

**78%** Natural Gas      **22%** Electricity

## HOME CARBON FOOTPRINT

This score shows the estimated carbon emissions based on the annual amounts, types, and sources of fuels used in your home. The lower the score, the less carbon is released into the atmosphere to power your home.



Estimated average carbon footprint (tons/yr):

**67%** Natural Gas      **33%** Electricity

\* Estimated costs and savings. Actual energy costs may vary and are based on many factors such as occupant behavior, weather and utility rates. Please see next page for more on the EPS calculation. Projections for score improvements and energy savings are estimates based on implementing all of the recommended energy efficiency improvements. Ref# 220001.

## MORE INFORMATION

### ABOUT THE MASSACHUSETTS HOME SCORECARD

The Massachusetts Home Energy Scorecard (MA Scorecard) is a tool to assess a home's expected energy use, cost, and carbon footprint. A lower energy use generally means that a home has a smaller carbon footprint and lower energy costs. The MA Scorecard also allows for comparisons of one home's energy use and carbon footprint. This is because the energy use and carbon footprint are calculated without the influence of occupant behavior, which can vary depending on things like whether there are teenagers in the house who take long hot showers and often leave lights on when they are not in a room.

### Home Energy Use

The Home Energy Use (HEU) calculation is based on a home's size, design, insulation levels, air leakage, heating and cooling systems, major appliances, lighting, hot water heating, and any electricity produced onsite by solar PV. The HEU number is "normalized" in the sense that occupant behavior, which can vary, is taken out of the calculation. A home's actual energy use will vary with number of occupants, occupant behavior, weather, and changes to the home.

***For additional details on the recommended energy improvements and savings estimates for your home, please refer to your Home Energy Assessment Report.***

## USEFUL TERMINOLOGY

### Btu

A Btu, or British Thermal Unit, is a measurement of the heat/energy content of fuel. mBtu stands for one million Btus. One Btu ~ the energy produced by a single wooden match. One million Bts ~ the energy produced by 7 gallons of gasoline used in a typical car.

### Carbon Footprint

The greenhouse gas emissions associated with a home's energy use impact the environment. The Carbon Footprint calculation is based on the carbon emissions for the annual amounts, types, and sources of fuels used in your home. Measurement is in tons of carbon dioxide per year (tons/year). One ton = 2000 miles driven by one car (typical 21 mpg car.)

For electricity, carbon emissions are based on electricity consumed onsite and the mix of fuel sources used in the region to generate that electricity at the time of this report.

For fossil fuel used in heating and hot water, carbon emissions are based on the therms of natural gas or gallons of oil or propane used in the home.

### Average Home in Your Area

The "Average Home in Your Area" refers to the average energy use or carbon footprint of all the homes in Massachusetts before implementation of any energy improvements. The average may vary slightly over time as homes become more efficient due to improvements.

## REBATES & INCENTIVES

INCENTIVE OFFERINGS	RESIDENTIAL
Electric Heat Pump Water Heater (Energy Star rated)	\$200
<b>Air Source Heat Pump (new installation)</b> Central, Multi-Zone or Ducted: AHRI SEER 16+; HSPF 9.5+ Single-Zone: AHRI SEER 18+; HSPF 10+	\$1000/ton
<b>Air Source Heat Pump (replacement installation)</b> Central, Multi-Zone or Ducted: AHRI SEER 16+; HSPF 9.5+ Single-Zone: AHRI SEER 18+; HSPF 10+	\$200/ton
Electric Panel Upgrade (to higher amperage; standard or smart panel; subpanels not included)	\$300-\$750
Refrigerator (Energy Star)	\$50
Electric Clothes Dryer (Energy Star)	\$50
Washing Machine (Energy Star)	\$50
Wireless (Smart) Thermostat (Energy Star)	\$50
Dehumidifier	\$25
Room Air Conditioner (Energy Star, EER 10+)	\$25
Snowblower	\$100
Zero-turn Riding Lawn Mower (cordless electric)	\$400
Riding Lawn Mower - not zero-turn (cordless electric)	\$200
Push Lawn Mower (cordless electric)	\$100
String Trimmers and Edgers (cordless electric)	\$25
Hedge Trimmers (cordless electric)	\$40
Leaf Blowers (cordless electric)	\$30
Pressure Washers (cordless electric)	\$40
Rototiller (cordless electric)	\$40
Chain and Pole Saws (cordless electric)	\$40
Lawn equipment package: cordless Push Lawn Mower and one additional cordless electric lawn item	\$150
Electric Vehicle Charger, Level 2, network-enabled	Up to \$750
Solar Choice Program - Community Shared Solar	Bill credit
Shred the Peak	✓
Energy Efficiency Online Store	✓
Time-of-Use Rate	Could reduce payments by 10%-20% per month

Some restrictions apply.

More Information: [bit.ly/ene-reading1](https://bit.ly/ene-reading1)

# Rebates & Incentives

## Discount on Energy Efficiency Products Through RMLD's Online Store:

Buy high efficiency LED lightbulbs and advanced power strips at up to 50% off through RMLD's online store to help the environment and reduce your electric bill. A limited selection of smart thermostats is also available for purchase with RMLD's appliance rebate already applied to the cost. The store may be accessed at [energyfederation.org/rmld](http://energyfederation.org/rmld).

## Energy Star Appliance Rebate Program:

If you're in the market for a new appliance, pick an energy-efficient model and you may qualify for a rebate from RMLD. We offer rebates ranging from \$25 to \$500 on most common household appliances that are ENERGY STAR rated. Some restrictions apply. Complete details are online at [bit.ly/ene-reading-2](http://bit.ly/ene-reading-2)

## Electrical Vehicle Charger Rebate Program:

Reading Municipal Light Department offers a Plug-in Electric Vehicle Charger Rebate to customers who install a Level 2 (240 volt) plug-in electric vehicle (EV) charger at their residence. Through this program, RMLD will reimburse customers for 100% of equipment costs up to \$500 (applies to single or dual port). Visit [bit.ly/ene-reading-3](http://bit.ly/ene-reading-3) to learn more.

## Electric Vehicle Pilot Rebate Program:

For a limited time, RMLD is offering a rebate on the lease or purchase of an electric vehicle. Customers must take delivery of the vehicle from June 1, 2018 through October 31, 2018 to qualify.

ELECTRIC VEHICLE TYPE	NEW	USED
Plug-In Hybrid Electric Vehicle PLUS (PHEV+)*	\$1,000	-
Battery Electric Vehicle (BEV)	\$1,500	\$1,500

\*PHEV+ is a Plug-in Hybrid Electric Vehicle with an on-board battery capacity greater than 10 kWh.

Visit [bit.ly/ene-reading-3](http://bit.ly/ene-reading-3) to learn more and apply.

## Residential Renewable Energy Rebate Program:

Customers who install solar panels, wind generators or other renewable energy systems in their homes may be eligible for RMLD rebates of up to \$2,000. Certain restrictions apply. Contact RMLD's Integrated Resources Division at 781-942-6516 to learn more.

## Solar Choice Program – Community Shared Solar:

RMLD's Community Shared Solar (CSS) program, Solar Choice, allows customers who want to support clean energy but aren't able or don't wish to install solar panels on their own home the opportunity to share in the benefits of a large solar system installed within RMLD's service territory. Participating customers share in both the costs and the benefits of Solar Choice. RMLD customers who wish to participate pay a monthly fee for costs associated with the program (about \$5.00). Starting in the second year, participating customers are expected to begin receiving credits on their bill; net credits are estimated to be as much as \$300 over a ten-year period. Visit [bit.ly/ene-reading-4](http://bit.ly/ene-reading-4) to learn more and sign up.

## Shred the Peak:

Peak demand occurs when the highest level of electricity is consumed in our region. Peak electricity is expensive, affecting power supply costs and in turn, all customer bills. RMLD's Shred the Peak campaign is an effort to collectively reduce RMLD's electricity use during peak demand to control these costs and keep rates affordable. RMLD issues Shred the Peak alerts to notify customers when a peak is predicted, and asks customers to take simple steps to conserve electricity during the predicted peak window. Visit [bit.ly/ene-reading-5](http://bit.ly/ene-reading-5) to learn more and sign up for Shred the Peak Alerts.

## Time-of-Use Rate:

Reading Municipal Light Department (RMLD) offers a Residential Time of Use (TOU) rate that could reduce your payments by 10%-20% per month. The TOU rate encourages customers to minimize electricity use during on-peak hours (Noon – 7pm, Monday – Friday, excluding holidays) by offering a discounted rate for use during off-peak hours. Shifting power use to off-peak hours also helps RMLD to stabilize rates and sustain reliability for all customers. For more details or to take advantage of the TOU rate option, call 781-942-6598 to speak with a Customer Service Specialist.