

Home Energy Assessment Report

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THE POWER OF ACTION

Prepared for

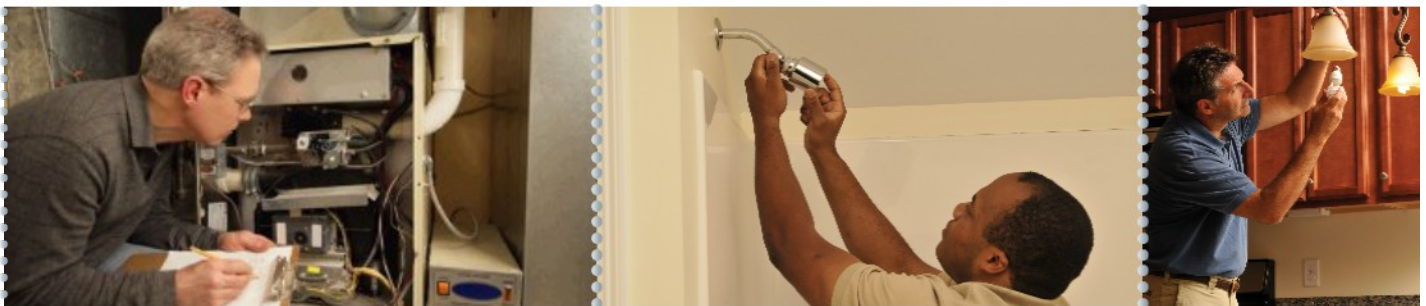
Sample Customer
123 Sample Rd.
Nantucket, MA 02554

Prepared by

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50 Washington St
Westborough, MA 01581

Assessment Date

11/06/2012



Assessment Summary

Sample Customer
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About Your Home

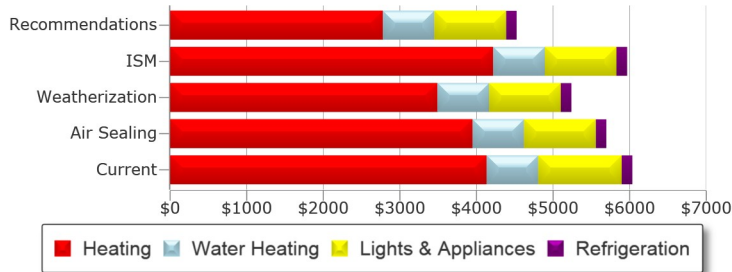
Year Built: 1966
Bedrooms: 3
Floors: 2
Conditioned Area: 2,200 ft²
Building Volume: 16,500 ft³
Heating: 1984 LPGas Furnace
DHW: 2002 LPGas 50 gal

Congratulations on taking the first important step toward making your home more energy efficient! An inefficient home wastes both energy and money. By reducing the amount of energy you waste, you will:

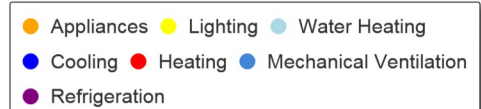
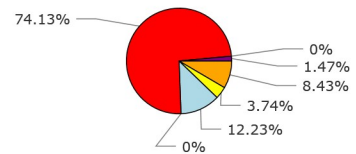
- Enjoy a safer, more comfortable home;
- Save money for years to come;
- Help make our environment cleaner now and for future generations; and
- Improve your home's market value.

Your assessment included a comprehensive evaluation of your home, including its physical structure, heating and/or cooling systems, appliances, and more. This report summarizes those findings, and presents one or more combinations of recommendations to help you improve your home's efficiency, as well as guide you in developing your energy action plan.

Estimated Annual Potential Savings



Your Home's Estimated Energy Use Breakdown



You can reduce energy waste by as much as 16%

Your home's annual energy usage is shown above. As you can see, some components use more energy than others. In our New England climate, the amount of energy used to heat your home is generally the largest part of your energy bill. You can improve your home's energy performance by:

- Reducing air leaks to the outside (air sealing)
- Increasing the amount of insulation you have
- Improving or replacing your heating system

Other equipment and appliances in your home, such as water heating, lighting, refrigerators and TVs/computers, may also use large amounts of energy, and improving these should be part of your overall energy plan.

Energy Efficiency Measures Installed Today

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Following are the measures that were completed during your Home Energy Assessment:

Description	Location	Quantity	Cost	Incentive
TCP 14w Mini Spiral Lamp	Family Room	4	\$24.68	\$24.68
33w Harmony 3-way	Living Room	2	\$22.70	\$22.70
TCP 14w A Lamp	Bedroom	3	\$22.32	\$22.32
TCP 14w Mini Spiral Lamp	Bedroom	1	\$6.17	\$6.17
23w TCP Spiral	Kitchen	2	\$13.64	\$13.64
Earth Showerhead (1.7gpm)	Living Space	1	\$10.00	\$10.00
HEA Visit (Audit Fee Part)	N/A	1	\$150.00	\$150.00
Totals			\$0.00	\$249.51

Quick Improvements for Savings

Got a minute? There's a lot you can do to improve the energy performance of your home in just a few minutes and for just a few pennies. The ideas below won't cost you much, but the savings will add up big.

- Turn down the thermostat to at or below 68 degrees during the day, and 58-60 degrees at night during the heating season.
- Set water heater thermostat to 120° F.
- Use cold water for washing clothes. About 16% of an average home's energy usage goes towards heating water.
- Cover hot water pipes—as well as the first six feet of cold water pipes—with pipe insulation.
- Set your refrigerator to 40°F and your freezer to 0–10°F.
- Turn off your computer, printer, TV and other electronics when you're not using them; consider using power strips for convenience.

Explore ways that you can invest in home improvements that will start paying off immediately, and you will continue to save wasted money year after year. Plus, by improving your home's energy efficiency, you will:

- Make your home safer and more comfortable, and
- Help reduce your carbon footprint, improving the environment and reducing our dependence on fossil fuels.

Don't wait, Start saving now!

Recommendations

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Your Energy Efficiency Recommendations

Following are some recommendations for improving the energy efficiency of your home. When considering energy efficiency, it is important to think of your home as one large interactive system. Each part works individually but also in concert with the other parts of your home. This is known as the Whole House Approach. In order to maximize your benefits, your investment, as well as your energy savings, your home energy advisor has grouped recommendations into one or more packages.

Recommendations are based on your Energy Specialist's evaluation:

Packages


Description	Qty	Estimated Cost (\$)	Estimated Incentive (\$)	Estimated Cost to Customer (\$)	Estimated Annual Savings (\$)	Estimated Payback Years
Air Sealing						
Perform Air Sealing at Estimated 62.5 CFM50 Per Hour	8	\$616.00	\$616.00	\$0.00	\$152.76	Immediate
Attic Stair Cover Thermal Barrier with carpentry	1	\$237.65	\$237.65	\$0.00	\$116.05	Immediate
Subtotal		\$853.65	\$853.65	\$0.00	\$268.82	Immediate
Weatherization						
Attic Floor Open Blow Cellulose 10"	950	\$1,501.00	--	--	\$406.58	0.92
Attic Floor Enclosed Cellulose Dense Pack 4"	150	\$265.50	--	--	\$48.54	1.37
Vent bath fan to roof flapper	1	\$118.00	--	--	N/A	N/A
Subtotal		\$1,884.50	\$1,413.38	\$471.12	\$455.11	1.04
Recommendations						
Propane Furnace 95% AFUE w/ECM	1	Cost Varies	\$500.00	Cost Varies	\$714.82	Varies
Subtotal		Cost Varies	\$500.00	Cost Varies	\$714.82	Varies
Totals		Cost Varies	\$2,767.03	Cost Varies	\$1,438.75	Varies



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Procedures used to make these estimates are consistent with criteria established by the United States Department of Energy for residential Home Energy Assessments. The costs and incentives detailed above for weatherization improvements have been estimated by your Energy Specialist under the program for which you may be eligible. Contractor costs for energy efficiency improvements such as new heating, water heating, and cooling equipment can vary widely depending on the size and type of equipment chosen and site specific installation requirements. The intent of this table is to illustrate the measures which, based on your Home Energy Assessment, will yield the greatest results, and to show the impact that program incentives can have on the cost of improvements you choose to make.

Payback years is the number of years estimated for a package of improvements to pay for itself in energy savings. Payback estimates do not account for future price fluctuations, nor do they incorporate benefits of possible tax credits. A cost effective measure will typically pay for itself within its expected lifetime. Payback estimates are only calculated for packages, because the Home Energy Assessment is based upon a Whole House Approach, and measures often work in conjunction with one another to maximize your savings. Remember that payback estimates are indeed estimates. The packages shown in this report reflect the expertise and experience of your Energy Specialist, and you are encouraged to consult with your contractor to select the recommendations that will best benefit your home. You are advised not to select recommendations or packages solely on the basis of estimated payback, but also to consider failing equipment, health and safety risks, and other non-energy factors, such as comfort.

Additional information on the recommendations for your home follow on the next page(s).

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Air Sealing



Air infiltrating the home through small cracks and gaps can result in as much as 20% of the typical home's heating and cooling costs. In the winter, cold dry air leaks into the home while the heated air exits. In the summer, the hot outside air enters the home and brings unwanted humidity. Outside air can leak in around window and door frames, floor and ceiling joints, electrical and plumbing access points, wall joints, exhaust fans, etc. While any one of these small leaks may be minor, collectively they can have the same effect as leaving a window open all year long. Air infiltration can also cause water vapor to condense inside walls and ceilings, causing insulation to become wet and ineffective and resulting in the growth of mildew and structural damage. While it is possible to make a home too air tight without proper ventilation, the vast majority of homes are much too drafty. The Energy Specialist has determined your home probably has excessive air infiltration and could benefit from professional air sealing services.

Blower door assisted air sealing is an effective and accurate method to measure air tightness and identify areas where air infiltration is occurring. Using the blower door when site conditions allow, a contractor measures overall leakage and identifies specific locations. Those locations are then treated using a variety of methods (caulk, foam, weather stripping, etc.). Safety testing of any combustion appliances in your home should be conducted before and after any air sealing is done.

Attic Insulation



Attic/ceiling insulation prevents conductive heat transfer between your home, the attic space, and the outside. Like all insulation, ceiling insulation helps keep the home warm in the winter and cool in the summer. Attic insulation is often the easiest and most cost-effective place to insulate because most attics provide easy access for the installations. The ready access and lower installation cost often makes this a very cost-effective measure. This is not to say ceiling insulation is necessarily more important than wall or floor insulation. Attic insulation is most effective when the ceiling plane between the home and the attic space is tightly sealed, so air sealing should be performed before attic insulation is installed.

Adding insulation above your ceiling can be very cost effective. The energy savings gained will usually pay for the cost of installing the additional insulation in only a few years. It is recommended ceilings be insulated to R-38. If the thickness of your existing insulation is 6 inches or less, you should realize significant savings in your heating and cooling costs after bringing the level to R-38. We strongly recommend air sealing the home before installing any insulation in the attic. Attic hatches in particular can be an area of unrestricted heat transfer. They should be insulated with rigid insulation board and air sealed with weather-stripping.

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Heating System Replacement



New, high-efficiency furnaces and boilers save significant amounts of energy in heating your home. Older types of furnaces and boilers can allow more than 25% of the heat from combustion to exit through the flue exhaust stack or chimney. New high efficiency furnaces and boilers are designed to allow less of the heat to escape meaning that more of the heat is used to warm your home. The advanced features of these new furnaces and boilers reduce energy waste and save you money.

Proper selection, sizing, and installation of new furnaces and boilers is essential to achieving the greatest savings from the replacement. It is important to first improve the overall energy efficiency of your home by: air sealing the home to reduce cold air infiltration; insulating walls, ceilings, and floors to recommended R-values; and sealing any ductwork located in unheated spaces. These energy efficiency improvements may allow the home to use smaller heating equipment, saving you money on the initial cost of the equipment and your energy usage for years to come. Remember: an oversized furnace or boiler wastes energy and costs you money. A trained heating contractor should recalculate your heating needs, after the home efficiency upgrades, to determine the proper size equipment for your home. It is important when buying new heating equipment to look at the Annual Fuel Utilization Efficiency (AFUE) rating; the higher the AFUE the better. The estimated savings are based on the recommended AFUE rating.

Visit www.massave.com and www.gasnetworks.com for further information on available rebates for heating equipment.