

Ten Minute Home Energy Audit

The American Homeowners Foundation (AHF) is providing this free Home Energy Audit to help homeowners reduce energy consumption costs. The U.S. Department of Energy predicts that home heating bills will increase as much as 48% in the 2005-06 winter heating season. Natural gas costs are expected to rise 48%, heating oil 32%, propane 30%, and electricity 5%. These figures are based on The National Oceanic and Atmospheric Administration's projection that temperatures this winter will be 3.2% lower than last years. When combined with recent substantial gasoline price increases, energy costs will put a significant dent in many homeowners' wallets.

There are many things homeowners can do to reduce home energy costs. Many homeowners can significantly reduce energy costs through simple and inexpensive do-it-yourself steps. The costs of more expensive energy reduction costs will be reduced by favorable tax incentives provided in federal energy legislation that became law earlier this year. For example, a homeowner can get tax credits of up to \$500 in 2006 and 2007 for expenses to upgrade heating and air conditioning systems, insulation, windows, doors and thermostats, caulk leaks, install pigmented metal roofs and otherwise reduce energy costs. This applies to projects started now, but completed and paid for after January 1. The new law includes tax incentives for builders of energy-efficient houses and manufacturers of more energy-efficient appliances and incentives to encourage the development of both solar and nuclear energy sources. Good news is in the legislation for car buyers too - \$2,000 tax credits for buyers of alternate-fuel (hybrid) vehicles, which were scheduled to phase out, have been extended over the next decade.

AHF's Ten Minute Home Energy Audit will help you identify steps you can take to significantly reduce your home's energy consumption. This a quick guide and scorecard will help you focus on the most obvious and cost-effective steps you can take to reduce energy consumption and increase comfort levels in your homes. The Audit will require you to explore your house using a flashlight, ruler and screwdrivers. We will start in the room containing your furnace if you have one, then work your way through each room to the attic. Please mark your score according to scale provided at each data collection point.

Then tabulate the results at the end. Here's the scale:

Over 100	Triple A+ Model of Energy Efficiency, well done
80 to 100	A, your house is in excellent energy shape
70 to 80	Great shapes, some minor improvements encouraged
60 to 70	Passes, yet obvious room for energy advancements
50 to 60	Not good, bet you have high utility bills and comfort problems
50 & below	Your house needs help! Seek professional advice to reduce energy costs

Item	Points
<p>1. Heating system's efficiency/age?</p> <p>If you have a brand new, super high efficiency/energy star system, add 10 points If your system is less than 3 years old and high efficiency, add 7 points If your system is 3 to 5 years old and high efficiency, add 5 points If your system is 5 to 10 years old and in good shape, add 3 points If your system is an oldie but a goodie, 10+ years old, add 1 point If your system is over 20 years old and in poor shape, subtract 3points!</p>	
<p>2. Heating system check-up</p> <p>Has your heating system had a check-up by a qualified HVAC professional within the past year? If you have had a check-up recently, give yourself 2 points.</p>	

<p>If you have any solar heating in your house, add 5 points.</p>	
<p>3. Changing air filter If you have changed your air filter 6 times this past year, give yourself 2 points If you have changed your air filter 2-4 times this past year, give yourself 1 point If you have not changed your air filter this past year, subtract 5 points</p>	
<p>4. Hot water heater temperature What is the temperature setting of your hot water heater? Note: If electric please turn off power at the circuit breaker if you need to open access panels to read. If the temp. is set to 110F or vacation warm (no scolding here), give yourself 5 points If the temp. is set to 120F or warm, give yourself 4 points If the temp. is set to 130F or warm plus, give yourself 3 points If the temp. is set to 140F middle of the dial (factory setting), give yourself 2 points If the temp. is set to 150F or hot, give yourself 1 point If the temp. is set to 160F or very hot give yourself 0 points</p>	
<p>5. Water heater insulation If you have additional insulation around your water heater, give yourself 2 points</p>	
<p>6. Water heater age If your water heater is less than 5 years old and is labeled as a high efficiency or “energy star” unit, give yourself 2 points. If you have a solar water heater, give yourself 5 points.</p>	
<p>7. Insulated water pipes If you have pipe insulation, give yourself 1 point. If you have a low flow water saving showerhead or aerator, give yourself 1 point for each one that you have.</p>	
<p>8. Wall insulation Do your outside walls have any insulation in them? Best way to check is to take off an electric outlet receptacle cover plate and with a non-conductive probe (i.e.: a soda straw or other non-metallic probe) poke around the box to feel insulation. If they are insulated, give yourself 5 points. No insulation? Sorry, give yourself 0 points.</p>	
<p>9. Air registers For every air register that is blocked by furniture or curtains, subtract 1 point!</p>	
<p>10. Return register Does your home have only one return register per floor? If so, subtract 1 point!</p>	
<p>11. Programmable thermostat Do you have a programmable set back thermostat <i>and it is used properly?</i> If so, add 5 points</p>	
<p>12. Do you have a programmable set back thermostat that is used most of the time? If so, add 2 points.</p>	
<p>13. Old Fireplace If you use your old fireplace, subtract 3 points! If your damper is off its hinges and can't close entirely (big energy loser, especially on very cold days), subtract another 3 points!</p>	

<p>14. Woodstove or insert Do you have an air tight woodstove or insert? If so, give yourself 4 points.</p>	
<p>15. Refrigerator age If your refrigerator is less than 5 years old and is an energy efficient or energy star model, give yourself 3 points.</p>	
<p>16. Refrigerator and/or freezer age & condition If your refrigerator and/or freezer are over 10 years old or have faulty gaskets, subtract 1 point for each!</p>	
<p>17. Dishwasher energy feature Do you use the energy saving feature on your dishwasher? If so, add 1 point.</p>	
<p>18. Windows If your windows are new, shut tight, thermal paned and low E glass, give yourself 5 points If your windows are shut tight and are thermal paned, give yourself 4 points If you have storm windows (that work) & tight primary windows, give yourself 2 points If you have some storm windows and fairly tight primary windows, give yourself 1 point If you have metal framed windows (with or without storms), subtract 1 point! If you have more that 3 windows can't close and all are in poor shape, subtract 3 points!</p>	
<p>19. Weather stripping Do you have weather stripping at each exterior door? For each door that is properly weather-stripped, add 2 points. For each door with an operable storm door, add 1 point.</p>	
<p>20. Caulking If all windows, doors, pipe penetrations and discordant joints (where wood meets concrete - top of foundation where top plate starts the wall, siding meets brick - at chimneys, etc.) are sealed tight, add 5 points. If only windows and doors are sealed tight, add 4 points. If caulking is present around windows and doors yet starting to crack and break, add 2 points If most caulking is cracking and exposing seams, add 0 points If caulking is non existent or older than God, subtract 3 to 5 points!</p>	
<p>21. Light bulbs For each compact fluorescent light bulb, add 2 points For any light fixture with a bulb over 200 watts - i.e.: standing Halogen torch lights, subtract 2 points!</p>	
<p>22. Attic hatch or pull down stair insulation Does your attic hatch or pull down stairs have an insulation cover? If so, add 1 point. If the hatch is weather-stripped and closes tightly, add another 1 point.</p>	
<p>23. Top floor ceiling insulation levels If insulation is 12" or more & is evenly distributed, add 8 points. If insulation is 8" to 12" high, add 5 points If insulation is 6" to 8" high, add 4 points If insulation is 3" to 6" high, add 2 points</p>	

If insulation is less than 3", subtract 1 point!	
If insulation has been disturbed and not even, subtract 1 point!	
24. Attic bypasses (where you see dirty discolored insulation you have air bypasses). If attic bypasses (plumbing stacks, electrical lines, top plates) have been air sealed with foam or caulk, add 4 points.	
25. Ducts in the attic If you have any ducts in the attic, subtract 2 points! If these ducts are either not insulated or if insulation is falling off (silver duct tape fails to hold up), subtract 4 points!	

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