

Do It Yourself Energy Audit Checklist

Anyone can conduct a simple walk-through and find places where energy is being lost in any type of home. While the pros use special equipment to focus on hard-to-research aspects of a home's building envelope and indoor air circulation, DIY audits can teach you to identify numerous small ways in which your home wastes energy. Follow along with the below checklist to get started!

Depending on your home, all of the below items may not apply – skip anything that isn't relevant!

Step One: Locate Air Leaks

Potential energy savings from reducing drafts can range from 10-20% and improve comfort, too. To detect leaks, try using the following methods (and don't forget your basement and attic if you've got access):

- *Hold a candle or stick of incense near windows, doors, electrical outlets, range hoods, plumbing and ceiling fixtures, attic hatches, and ceiling fans in bathrooms. When smoke blows, you've got a draft from a source that may need caulking, sealant, weather stripping, or insulation.*
- *Look for light coming through gaps around doors, windows, fixtures, etc. Shine a flashlight at night around any potential gaps while a partner observes from outside.*
- *Shut a door or window on a dollar bill. If you can pull the dollar bill out without it dragging, you are losing energy.*

Location	Leaks detected?	Notes
Door and window frames		
Check windows for cracks, broken seals		Single paned or double paned?
Along baseboards or edge of flooring		
Junctures of the walls and ceiling		
Lighting fixtures (especially recessed)		
Plumbing fixtures		
Switches, electrical outlets in walls, exhaust fans and vents		
Fireplace dampers		
Outside of home where 2 different building materials meet		

Step two: Lighting

Lighting typically accounts for about 10% of your electric bill. LED bulbs are at least 75% more efficient than incandescents, they can last more than 20 years, AND they do not produce heat like incandescent bulbs or contain the mercury found in CFLs, making them the safer and more efficient choice.

	Notes
Examine type of light bulbs	<input type="checkbox"/> Mostly incandescent <input type="checkbox"/> Mostly LED or CFL
Identify which light fixtures you use the most.	How many? _____ Hours of use per day? _____
Don't forget outdoor lights!	How many? _____ Hours of use per day? _____

Step three: Heating and Cooling

Space heating and cooling accounts for roughly half the energy used in a typical U.S. home – if your heating system isn't working efficiently, as much as 30-50% of this energy is wasted! And water heating is the second largest energy demand in most homes – as much as 15 to 30% of your household energy use!

	Notes
My heating system is: <input type="checkbox"/> Gas forced air <input type="checkbox"/> Gas hot water <input type="checkbox"/> Electric forced air <input type="checkbox"/> Electric heat pump <input type="checkbox"/> Other: _____	Age of heating system: <input type="checkbox"/> more than 15 years <input type="checkbox"/> less than 15 years <input type="checkbox"/> less than 5 years
Furnace filters are cleaned or changed monthly	
Annual inspection/maintenance performed regularly	
My water heater is: <input type="checkbox"/> gas <input type="checkbox"/> electric <input type="checkbox"/> heat pump	Age of water heater: <input type="checkbox"/> Less than 15 yrs <input type="checkbox"/> More than 15 yrs
I have (If you have a heat pump, skip question): <input type="checkbox"/> Central forced-air air conditioning <input type="checkbox"/> wall/ window-mounted A/C unit <input type="checkbox"/> no air conditioning system	

Step Four: Appliances and Electronics

Appliances account for about a quarter of a home's energy use. The refrigerator is the most expensive appliance to operate after your furnace and water heater.

Appliance	Notes
Refrigerator / Standalone Freezer A refrigerator should be 40 degrees or slightly below and a freezer 0 degrees.	Age of fridge _____ yrs Age of Freezer _____ Energy Star? _____ Energy Star? _____ Temperature _____ Temperature _____
Clothes washer	Age of washer _____ # loads/wk _____ Energy Star? _____
Clothes Dryer	# dryer loads/wk _____ Energy Star? _____
Dishwasher	Energy Star? _____ # loads/wk _____
Other appliances: TV Gaming system Other kitchen/cooking appliances Hot tub?! Other?	How many hours/day in use? How many hours plugged in?

Go the Extra Mile: Insulation

A lot of energy can be lost through insufficient or nonexistent insulation, especially in older homes! Locate potential large air leaks and determine your existing insulation level.

Space	Notes
Attic	
General attic/crawlspace insulation	Depth/thickness of insulation: Type of insulation:
Attic hatch (should be securely sealed)	
Pipes, ductwork, wires, etc that penetrate ceilings or walls	
Chimneys (any gaps should be sealed)	
Exterior Walls**	
Basement	
Insulation level under living area	Depth/thickness of insulation: Type of insulation:
Gaps around/through vents and windows Gaps around pipes/wires open to exterior	

**Examining in-wall insulation is more difficult – but you can shut off the breaker to a wall switch, then unscrew the cover plate and shine a flashlight between the plaster and the edge of the electrical box. You can also use a plastic utensil to probe gently next to the box. Be careful not to damage electrical wiring!

Insulation is rated by its R-value, which measures thermal resistance. Each type of insulation has a particular R-value for each inch of thickness. Learn lots more about insulation and calculate if yours measures up to recommendations, here: <https://energy.gov/energysaver/insulation>

Questions to ask yourself after completing your own energy audit:

1. How much money do you spend on energy?

2. Where are your greatest energy losses?

3. What energy-saving areas would you like to know more about, based on your audit?



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