

DIY ENERGY AUDIT CHECKLIST

SIMPLE 54 POINT DIY HOME ENERGY AUDIT CHECKLIST FOR A MORE COMFORTABLE HOME



203 HVAC
Heating Air Conditioning
& More





Do-It-Yourself Home Energy Audit Checklist



This 54 point DIY energy audit checklist is a simple procedure that will allow you to appraise the energy efficiency of your home. By completing the energy audit checklist you will be able to spot areas that need improvement in the way you use energy.

1. Before you start the energy audit make sure you understand the terms used in the energy audit checklist.
2. Make sure you understand any safety and health issues.
3. Plan to spend one to two hours to complete your energy audit.
4. Fill in your checklist as you go by circling the answer that describes the way that you use energy.
5. When you are finished, add up your symbols (😊 = good energy performance, 😐 = medium energy performance, 😞 = poor energy performance) and enter them into table.
6. Review each item that may need improvement in terms of energy efficiency. Estimate how much you need to spend for each energy conservation measure or upgrade.
7. Evaluate your habits and activities to determine what you can do to improve them. Consider simple changes that have little or no-cost to make a meaningful impact on your overall energy performance. Commit to energy-saving changes and write them down.




1. AIR LEAKAGE

Do you prevent air leakage? (by weatherstripping, sealing)			COMMENT
			You will reduce your heating and cooling costs and make your more comfortable and healthy if you use appropriate sealing and weatherstripping. Sealing and weatherstripping will complement your insulation.
Windows	No	Yes	
Doors	No	Yes	
Light switches/ Electrical outlets	No	Yes	
Exhaust fans	No	Yes	
Pipe & wire penetration	No	Yes	
Basement/Attic/Crawl space	No	Yes	
Fireplace & duct penetrations	No	Yes	
Wall/Window a/c units	No	Yes	
Living areas	No	Yes	




2. INSULATION

Is your home insulated?			COMMENT
			Insulation may cut your cooling and heating costs 20 – 30 percent and increase comfort of your home.
Living Areas	No	Yes, R-Value _____	
Attic	No	Yes, R-Value _____	
Basement	No	Yes, R-Value _____	
Floor	No	Yes, R-Value _____	



3. HOUSE HEATING SYSTEM

				COMMENT
How efficient is your house heating system?	68–72 percent AFUE/Natural draft creates a flow of combustion gases/Continuous pilot light/Heavy heat exchanger	80–83 percent AFUE/Exhaust fan controls the flow of combustion air and combustion gases precisely/Electronic ignition/Compact size and lighter weight	90–97 percent AFUE/Condensing flue gases in a second heat exchanger for extra efficiency/Sealed combustion	An efficient heat system could save you up to 30 percent on your energy cost.



4. WATER HEATING









				COMMENT
How efficient is your water heating system?	My water heater is over 15 years old and not insulated	My water heater is over 15 years old, properly insulated with a water heater blanket. My hot water pipes are covered with sleeve insulation.	My hot water heater is Energy Star® rated/I have a tankless hot water heater/I have a solar thermal system	Water heating makes up 13 percent of your utility bill. Consider upgrading if your water heater is more than 15 years old.
My showerhead has flow rate of	5.5 gpm	2.5 gpm -5.5 gmp	less than 2.5 gpm	Low-flow fixtures save water by 25-60 percent.
My hot water heater thermostat is set	at 120° F	between 120° F and 240° F	above 140° F	You can save 3–5 percent in energy costs for each 10° F reduction in water temperature.

5. APPLIANCES



			COMMENT
My refrigerator is Energy Star® rated	False	True	Efficient models use 20 percent less energy than conventional models
My A/C Unit is Energy Star® rated	False	True	Energy Star® a/c central units have 14% more efficiency than standard models and can save 30 percent in cooling costs. Energy Star® a/c room units use 10 percent less energy than conventional models.
My dishwasher is Energy Star® rated	False	True	Efficient units save 1,300 gallons of water over its lifetime.
My freezer is Energy Star® rated	False	True	Efficient models use 10 percent less energy than conventional models
My clothes washer is Energy Star® rated	False	True	Efficient models use 50 percent less water per load and use 270 kWh of electricity per annum. Choose a unit with a cold water option. For best performance choose front loaders.
My cooktop/oven is	Gas burner/ traditional electric	Induction cooktop/solar oven/ hybrid solar oven	























6. COMPUTER/ELECTRONICS

			COMMENT
My computer/display is Energy Star® rated	False	True	Efficient models use up to 65 percent less energy than conventional models.
My imaging equipment is Energy Star® rated	False	True	Efficient models use 40 percent less energy than conventional models.
My audio/video equipment is Energy Star® rated	False	True	Efficient models use up to 60 percent less energy than conventional models.

My television is Energy Star® rated	False	True		Efficient models use 40 percent less energy than conventional models.
7. DOORS AND WINDOWS				
				COMMENT
My windows are Energy Star® rated	False	True		To save up to 30 percent on your cooling and heating consider energy-efficient windows.
My doors are Energy Star® rated	False	True		
8. LIGHTING				
				COMMENT
For indoor lighting I use mostly	Traditional Incandescent	Energy-Saving Incandescent compact	fluorescent lamps light emitting diodes (LED)	Fluorescent lights use much less energy than traditional incandescent lights.
For outdoor lighting I use mostly	Traditional Incandescent	Efficient, with motion sensor	Solar	Solar lights do not need electricity to operate.
9. HABITS				
				COMMENT
How do you regulate the temperature at home?	I do not regulate the temperature.	I manually regulate the temperature	I use a programmable thermostat to automatically regulate the temperature	To meaningfully improve your energy performance combine energy efficiency with energy sufficiency and smart habits. A programmable thermostat can save up to 10 percent per annum on your total costs.
When I am at home in winter, my living room temperature is	75° F/higher	72° F	68° F/lower	Lower the thermostat of heaters by 1° F in winter to reduce energy use by 5 percent.
When I am at home in summer, my living room temperature is	70° F/lower	74° F	78° F/higher	Raise the thermostat of a/c units by 1° F in summer to reduce energy use by 5 percent.
I heat and cool	Whole house	Living spaces	Rooms that people are in	Heat and cool only rooms that you are using.
What do you use for cooling?	A/C system	Single room air conditioner	Ceiling fans and night breezes	Ceiling fans improve comfort substantially and complement a/c units. Do not forget to reverse the fan direction in winter.
Do you have a second fridge/freezer?	Yes, always running	Yes, running only when needed	No second fridge or freezer	
Do you have a pool?	Yes, heated, filter always running	Yes, solar/not heated/ filter runs for 6hrs daily/ cleaned regularly	No	Think about a solar pool blanket & heater. Salt water chlorinators use twice as much energy to run. Keep your filters clean.

HABITS, CONTINUED

			COMMENTS
	False	True	
I close the doors when I leave the room during the cooling and heating season.			
My furnace and A/C filters are clean; I replace filters monthly during the heating and cooling season.	False	True	
I turn the lights off when not in the room.	False	True	
I take 2-minute showers	False	True	Take short showers instead of baths and long showers.
My refrigerator coils are cleaned at least once a year.	False	True	Lint buildup on coils makes the engine work harder thus utilizing more energy.
My appliances are unplugged when not in use.	False	True	When you are gone, even for a few hours, unplug your appliances to save energy.
I wash my clothes in cold water	False	True	Most of the energy used in washing clothes comes from heating the water. By washing your clothes in cold water you can save up to \$63 annually.
I dry my clothes on a clothesline or drying rack	False	True	If you do not use your dryer 6 months/year you can prevent 1,000 pounds of CO2/year. If you are considering a new dryer choose an energy efficient unit with a moisture sensor.
The dishwasher and washer are run only when they are fully loaded	False	True	
Trees, vines and shrubs provide shade to my house/I have the Energy Star roof	False	True	Plants that provide shade can cool down your home by 3-6 degrees and save you up to 25 percent of household energy use. You can lower the temperature of your roof by installing sheet covering, reflective paint or reflective shingles.
The fresh food compartment of my refrigerator temperature is set to 37-40°F. The freezer section is set to 5°F.	False	True	
I close and seal the fireplace damper when I am not using it	False	True	Closing the damper prevents heat/cold air from escaping.
I have installed blinds/thermal drapes on my windows. In winter, I open the drapes/blinds to use the solar passive heating. In summer, I close the drapes to insulate my windows from the warm summer heat.	False	True	
I air dry dishes instead of using my dishwasher's drying cycle	False	True	Dishwashers use 80 percent of its energy to generate heat.
I harness the power of the wind/and/or sun to generate electricity in my home	False	True	
I recycle/donate my old appliances as appropriate	False	True	

10. SUMMARY AND ACTIONS	Your results	What can you do?	By when?	How much do you need to spend?
1. AIR LEAKAGE	 = 			
2. INSULATION	 =  = 			
3. HOUSE HEATING SYSTEM	 =  = 			
4. WATER HEATING	 =  = 			
5. APPLIANCES	 = 			
5. COMPUTER/ ELECTRONICS	 = 			
6. DOORS AND WINDOWS	 = 			
7. LIGHTING	 =  = 			
8. HABITS	 =  = 