



ENERGY STAR Home Check-Up

Use this ENERGY STAR Home Check-Up to walk through your home with your family (or someone else's home, too) and identify ways to start saving energy, money, and the planet right away. Regardless of whether you live in a single-family home or an apartment or you rent or own, there are several ideas here that can help you save — so just review and pick those that work for your home.

First you **Investigate** by checking your home for ways to save energy. Then you **Educate** your family member (that is the person(s) who lives at home with you who will join you for the check up) on how to save energy. You can then show your family how to take action to make changes—this is the **Activate** part. And once you activate the change, you not only **Save** energy, money, and the environment, but you help change the world—one home, one family at a time.

LIGHTING

★ INVESTIGATE:

- Look for incandescent light bulbs (the old-fashioned kind of light bulbs, with filaments, as pictured on the next page).

★ EDUCATE:

- Light bulbs with the ENERGY STAR label use about 75 percent less energy than incandescent bulbs and last 10 times longer. You can find Compact Fluorescent Light Bulbs (CFLs) and Light Emitting Diode (LED) bulbs with the ENERGY STAR. Both look different than old bulbs because they use a newer technology than regular light bulbs—you might be able to tell they're CFLs if they look swirly or LED bulbs if they have metal fins. Sometimes CFLs have covers over the swirly part, so they can also look like incandescent light bulbs. Just look for the ENERGY STAR.
- Make sure to use the right bulb for each fixture (a "reflector lamp" for lights that are sunk into the ceiling, one that says "dimmable" if it has a dimmer switch).
- Look for LUMENS not Watts, because a 13-watt CFL puts out about the same amount of light (about 800 lumens) as a 60-watt incandescent. Check out the chart pictured below for additional guidance.
- Be sure to turn off the lights when leaving the room.
- Remember to tell your family to recycle the CFL when it burns out. They can take them to most local hardware or home improvement stores, or go to www.epa.gov/bulbrecycling or www.earth911.org to identify local recycling options.



13W ENERGY STAR qualified CFL

Brightness	Estimated Energy Cost
800 lumens	\$1.57 Per year



12.5W ENERGY STAR qualified LED bulb

Brightness	Estimated Energy Cost
800 lumens	\$1.50 Per year



43W Incandescent halogen

Brightness	Estimated Energy Cost
800 lumens	\$5.18 Per year



60W Incandescent

Brightness	Estimated Energy Cost
800 lumens	\$7.32 Per year

★ ACTIVATE:

- Encourage the resident to start by changing out incandescent bulbs in lights that get used the most, to get the most savings. Typically these are the kitchen ceiling light, living room table and floor lamps, bathroom vanity, and outdoor porch or post lamp.
- Supply the resident with the "How to Choose the Right ENERGY STAR Qualified Bulb" sheet at the end of this Check-Up so he/she can learn more about ENERGY STAR lighting, choose the right bulbs for the home, and learn how to safely handle and dispose of bulbs.

★ SAVE:

- By replacing a home's five most frequently used lights or the bulbs in them with ENERGY STAR qualified lighting, the resident can save \$75 each year. And if every American home replaced just one light with an ENERGY STAR light, we would save enough energy to light 3 million homes for a year and prevent 9 billion pounds of greenhouse gas emissions per year, equivalent to the emissions from 800,000 cars.

ELECTRONICS

★ INVESTIGATE:

- Ask the resident if the products listed to the right are ENERGY STAR qualified, and check to see if there is a visible ENERGY STAR label. See pictures on the next page for examples of how the label might appear. The label might be black, blue, or silver. Remind the resident

	ENERGY STAR	NOT ENERGY STAR
TV		
DVD		
VCR		
Portable phone		
Cable box		
Computer		
Laptop		
Printer/Scanner/Copier		

that it might have been on the box or manual that came with the product. If the resident doesn't remember and no logo can be found on or related to the product, then assume that it is not qualified for the purposes of this exercise.

- Find out if the computer(s) is set to "sleep" when not in use.

★ EDUCATE:

- The ENERGY STAR label on any of these products means it uses less energy than a standard model, which means fewer greenhouse gas emissions.
- Suggest that the resident look for the ENERGY STAR the next time he/she replaces one of his/her electronic products.
- Turning off computers when they're not in use doesn't hurt them, and it's a great way to save energy!
- Enabling a desktop computer's and monitor's power management features, which put them to sleep when not in use, can save up to \$90 per year.

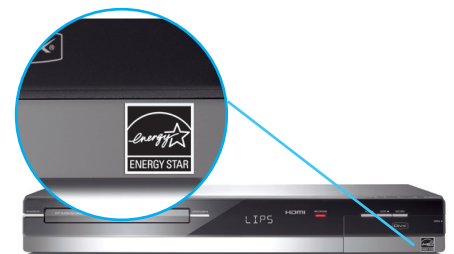
★ ACTIVATE:

- If the resident has a computer and/or monitor, suggest enabling the power management or "sleep" settings, following the directions included in the "How to Power Manage Your Computer" sheet at the end of this Check-Up.
- Suggest that the resident plug office products and home entertainment equipment into power strips so everything can be turned off with the flip of a switch. Turn off equipment at night or when not in use.
- Suggest that the resident pick the "home" or "standard" or "regular" setting on the set-up menu of his/her television that is most appropriate for home use. Reducing the brightness of a TV set cuts its energy use by as much as 30 percent.
- Walk around the home with the resident and suggest unplugging any power adapters that are not charging products.

★ SAVE:

- If every TV, DVD player, and home theater system purchased in the U.S. this year was ENERGY STAR qualified, we would save more than \$260 million in annual energy costs and prevent more than 3 billion pounds of greenhouse gas emissions per year, equivalent to the emissions from about 300,000 cars.
- If every home office product purchased in the U.S. this year was ENERGY STAR qualified, we would save \$117 million in annual energy costs while preventing 1.5 billion pounds of greenhouse gases, equivalent to emissions from 158,000 cars.

Use these examples to look for the **ENERGY STAR**:



APPLIANCES

★ INVESTIGATE:

	ENERGY STAR	NOT ENERGY STAR
Refrigerator		
Clothes washer		
Dishwasher		
Dehumidifier		
Room air conditioner		

- Ask the resident if the products listed above are ENERGY STAR qualified, and check the products for an ENERGY STAR label. See pictures on the right for examples of where the label might appear. Look on the front of the appliance as well as inside the door. Remind the resident that it might have been on the box or manual that came with the product. If the resident doesn't remember and no logo can be found on or related to the product, then assume that it is not qualified for the purposes of this exercise.
- Find out if there's an old, pre-1993 refrigerator in the basement or garage.

★ EDUCATE:

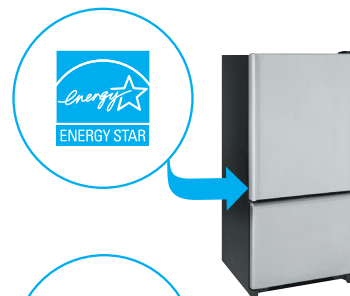
- The ENERGY STAR label on any product means it uses less energy than a standard model, which means lower utility bills and fewer greenhouse gas emissions.
- Next time the resident wants to replace an appliance, recommend looking for the ENERGY STAR.
- Think twice before putting an old refrigerator to use in the garage or basement—operating a refrigerator manufactured before 1993 uses over 1,000 KWh per year to operate.
- The average household spends \$260 per year on water heating—one of a home's highest energy costs, behind heating and cooling.

★ ACTIVATE:

Suggest that the resident:

- Wash laundry with cold water whenever possible, and wait until there's a full load to start washing.
- Run the dishwasher with a full load, and use the air-dry function if available.
- Scrape food off of plates instead of rinsing them before loading the dishwasher. It will save water and energy.

Use these examples to look for the **ENERGY STAR**:



- Save energy with your water heater by turning down the thermostat to 120 degrees and wrapping it with an insulating jacket, which can save more than \$30 per year in excess heat loss.

★ SAVE:

- If every refrigerator, dishwasher, and clothes washer bought in the U.S. this year was ENERGY STAR qualified, we would prevent more than 2 billion pounds of greenhouse gas emissions per year and save \$360 million on our annual energy costs.

HEATING AND COOLING

★ INVESTIGATE:

- Does the home have central air conditioning and/or a forced-air heating system (which means there will be air vents in the home instead of radiators or baseboard heaters)? If yes, go to the next bullet. If no, skip to the third bullet.
- If yes, ask the resident these questions about his/her heating and cooling system:

	HAVE YOU:	
	YES	NO
Changed the air filter in the last 3 months?		
Removed leaves, dirt, and other debris from around the outdoor components of the system?		
Had a contractor inspect the duct system for signs of leaks, tears, and disconnections?		
Had the heating and cooling equipment inspected by a professional in the last year?		

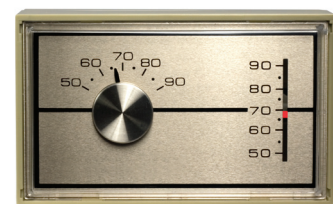
- If the home does not have central air conditioning and/or forced-air heating, suggest that the resident choose ENERGY STAR when purchasing a new furnace or boiler.
- Ask the resident if he/she has installed a programmable thermostat and programmed it properly. You'll know it's a programmable thermostat if it allows you to digitally program in temperatures for specific times of the day throughout the week using a screen and buttons. The home might have a manual thermostat instead, which just has a dial or lever. See the pictures on the right for help.

★ EDUCATE:

- Heating and cooling costs the average homeowner a lot of money—more than \$900 each year! That's about half of his/her total energy bill.
- With proper use, programmable thermostats can save over \$180 in energy costs. (See directions on how to properly program a thermostat on the following page.)
- Using a ceiling fan is a really great way to save energy by circulating the air inside of a room. You can save by turning your thermostat up a little in the summer since the ceiling fan will make you feel cooler.



Programmable
Thermostat



Non-Programmable
Thermostat

Don't forget to turn off the fan when leaving the room since ceiling fans cool YOU, not the room.

- The air filters on the furnace need to be checked every month. Replace them if they look dirty, or at least once every 3 months.
- It's a good idea to have a tune-up on the home's air conditioning system each spring and on the furnace or boiler each fall; it helps the home's heating and cooling system work better.
- In homes with forced-air heating or cooling systems, ducts move air to the rooms around the home and return it to the central unit. These ducts are often big energy wasters! You can save up to \$200 a year in heating and cooling costs (or 10 percent on your energy bill) by sealing and insulating your home with guidance from ENERGY STAR.

★ **ACTIVATE:**

- If there is a programmable thermostat, encourage the resident to program it based on whether he/she is at home, away from home, or asleep per the chart on the next page. Staying within a range of these recommended temperatures will provide the most savings. If the home has a manual thermostat, the resident can also manually change the temperature throughout the day based on the same recommendations, but he/she must do this every time to get the savings.
- If the resident has a ceiling fan, suggest that he/she check to make sure that it is blowing air downward in the summer to help feel cooler. Fans can also be used to pull air up and help circulate warm air in the winter.
- Look around the home at the heat registers and vents—they should be clear of any furniture or rugs. If they are covered or blocked, recommend that the resident keep them clear to improve air flow and comfort.
- When the furnace/air conditioner is on, suggest that the resident go around the home and check how much air is coming out of each register or vent. If there is no air or very little coming out, it could indicate a leak in the system, and the resident should hire a contractor to investigate further.
- Work with resident to remove leaves, dirt, and other debris from around the outdoor components of the system to improve efficiency.
- Have the resident order EPA's "A Guide to Energy-Efficient Heating and Cooling" from the ENERGY STAR publications website listed on the Resources hand-out at the end of this Check-Up for more information on how to save energy and money and keep his/her home comfortable.

★ **SAVE:**

- If a home's heating and cooling equipment is more than 10 years old, or is not keeping the home comfortable, consider replacing it with a model that has earned the ENERGY STAR. Depending on where you live, replacing your old heating and cooling equipment with equipment that has earned the ENERGY STAR can cut your annual energy bill by more than \$200.

PROGRAMMABLE THERMOSTAT SETPOINT TIMES & TEMPERATURES

SETTING	TIME*	IN WINTER	IN SUMMER
Wake		≤ 70° F	78° F
Leave		Set back at least 8° F	Set up at least 7° F
Return		70° F	78° F
Sleep		≤ Set back at least 8° F	Set up at least 4° F

***If the resident would like to program the thermostat with you, ask him/her what times best coincide with these settings and use the table to re-program the thermostat.**

AIR LEAKS & INSULATION

★ INVESTIGATE:

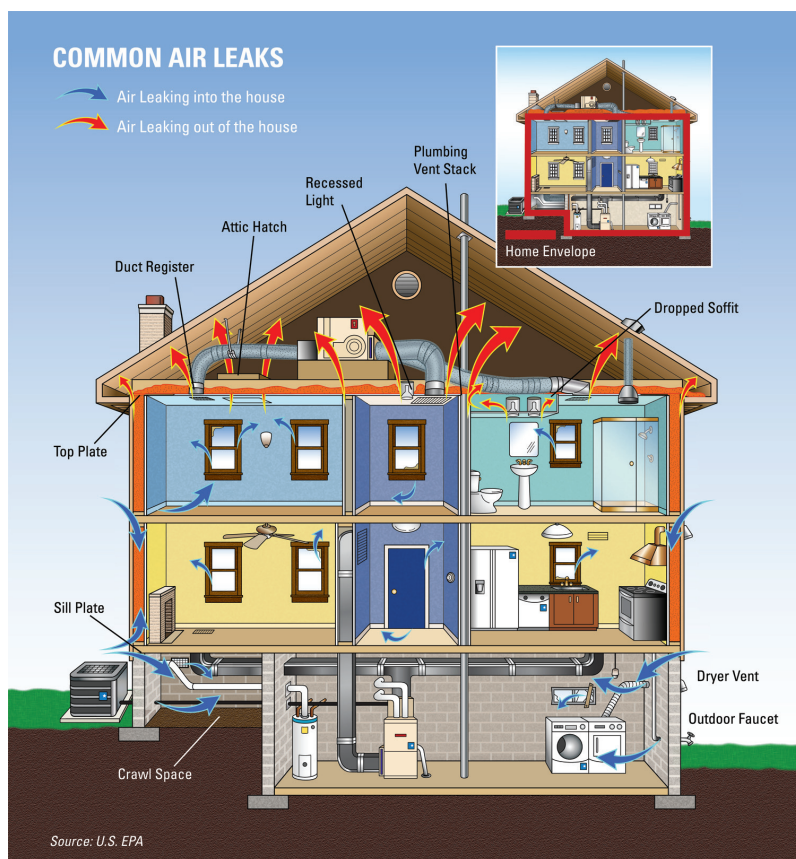
- Ask the resident if he/she often feels drafts or sees gaps in the below areas around the home.
- Then, use a playing card to find doors that could benefit from weather stripping. If you can fit the card between doors and door jambs, weather stripping or a door sweep can be used to help keep out drafts.

DO YOU FEEL AIR LEAKS OR SEE GAPS:

	YES	NO
Around windows?		
Around the front and back doors?		
Near electrical outlets?		
Near outdoor faucets?		
Around pipes under the kitchen sink?		
Around the dryer vent?		
Around recessed lights?		

★ EDUCATE:

- Air leaks, like these shown in the graphic on the right, waste energy and make a home less comfortable. In fact, the average home has enough air leaks that it is like keeping a window open all year long. There are easy ways to fix leaks with products such as caulk, weather stripping, or spray foam.
- Insulation helps to keep a home warm in the winter and cool in the summer, but most homes today do not have enough insulation in the attic.
- If you're in a colder part of the country, ask the resident if icicles often hang from the roof, or if the snow melts off of the roof earlier than off of neighbors' roofs. This problem may suggest that heat is escaping, and air sealing and additional insulation in the attic may be needed.
- ENERGY STAR qualified windows can help reduce a home's energy bill up to 15 percent. They protect from the winter cold and summer sun, plus reduce condensation and interior fading. Also, during cold weather, take advantage of the sun's warmth by keeping drapes open during sunny days. To keep the heat out during the summer, close window shades and drapes in hot, sunny weather.



★ ACTIVATE:

- Have the resident order EPA's "Do-It-Yourself Guide to Sealing and Insulating with ENERGY STAR" from the ENERGY STAR publications website listed on the Resources hand-out at the end of this Check-Up for more information about how to fix air leaks all over the home.

- If the resident has an attic, suggest that he/she check the insulation levels. If the insulation is level with or below the attic floor joists, the home probably needs more.

★ **SAVE:**

- Residents can save up 10 percent on a home's energy bill—or up to \$200 a year—by Sealing and Insulating with ENERGY STAR.

THE ENERGY STAR PLEDGE

Encourage your family and friends to save energy and take the ENERGY STAR Pledge online at www.energystar.gov/changetheworld.

Thank whoever joined you for the ENERGY STAR Home Check-Up for their time and for the difference they are making for the environment, and make sure they take the pledge to demonstrate how they plan to make a difference with ENERGY STAR now that they have learned all the different ways to save.



HOW TO CHOOSE

THE RIGHT ENERGY STAR® QUALIFIED LIGHT BULB

		SPIRAL	COVERED A-SHAPE	GLOBE	TUBED	CANDLE	INDOOR REFLECTOR	OUTDOOR REFLECTOR
TABLE/FLOOR LAMPS								
PENDANT FIXTURES								
CEILING FIXTURES								
CEILING FANS								
WALL SCONCES								
RECESSED CANS								
TRACK LIGHTING								
OUTDOOR COVERED								
OUTDOOR FLOOD								

AVOID EARLY BURNOUT:

- Only bulbs marked "dimmable" or "three-way" will work on dimmers or three-way switches.
- Most photocells and timers are not designed to work with CFLs.
- For recessed cans only choose bulbs marked "indoor reflector" or "for indoor use."



Download the Light Bulb Finder mobile app at www.lightbulbfinder.net while you're on the go to find energy-saving bulbs near you.



HOW TO POWER MANAGE YOUR COMPUTER



For a
PC

For a
MAC

Homeowners can save money by activating the power management features on a computer or laptop.

Enabling “sleep” features can save you as much as \$85 per system annually. Also, you can save energy, money, and the environment just by activating your power management!

ENERGY STAR Power Management features—standard in Windows and Macintosh operating systems—place monitors and computers (CPU, hard drive, etc.) into a low-power “sleep mode” after 5 to 20 minutes of inactivity. Touching the mouse or keyboard “wakes” the computer and monitor in seconds. The lower the setting, the more energy you save.

To configure the Power Management on most Windows programs:

Click **START**, **RUN**, and then **CONTROL PANEL**.

Double click on **PERFORMANCE AND MAINTENANCE**.

Click **POWER OPTIONS**.

The Power Options Properties dialog box should now be displayed with the Power Schemes tab selected. Here you can set timeouts for your monitor, system standby, and hibernate. Notebook computer users can specify an alternative power scheme that will take effect when the PC is running on battery power.

To configure the Power Management on most Mac programs:

Click on the **APPLE symbol** (Apple Menu) in the upper left of your screen.

Go to “System Preferences.”

Click **SHOW ALL** (if necessary).

Select **ENERGY SAVER** from the “Hardware” row.

Set “Put the computer to sleep when it is inactive for” to 30 minutes using the slider.

Set “Put the Display to Sleep when the computer is inactive for” to 5 minutes using the slider.

To maximize savings, EPA recommends setting computers to enter system standby or hibernate after 15 to 60 minutes of inactivity. To save even more, set monitors to enter sleep mode after 5 to 20 minutes of inactivity. The lower the setting, the more energy you save. The “Turn off hard disks” setting does not save much power, and can be ignored.

If you are not able to select a hibernate timeout, you may need to enable the hibernate feature. To do so select the **HIBERNATE tab** in Power Options Properties, check “Enable Hibernation” and click **APPLY** or **OK**.

GO ONLINE:

- For a clickable list of resources, please visit the ENERGY STAR Power Management Web site at www.energystar.gov/powermanagement.

LEARN MORE AT
[energystar .](http://energystar.gov)