

Save Energy, Save Money

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Energy Consumption Facts

- ▶ The United States is one of the world's leaders in energy supply, production and consumption.
- ▶ The United States uses approximately 23% of the world's energy, yet it only holds about 5% of the world's population.
- ▶ On average, the typical American uses 41% of their energy on space heating, and 35% on appliances, electronics and lighting.
- ▶ Lighting costs make up approximately 20% of all of the electricity used in the United States today.
- ▶ Approximately 75% of the electricity used in most American homes is used while the product is turned off. Idle power is a major energy consumer.

Water Consumption Facts:

- ▶ On a global scale, water consumption varies greatly. It is estimated that, in order to survive, a person needs 4 to 5 gallons of water per day – this includes water for drinking, cooking and sanitation. The average water use per person per day, just for domestic purposes in the United States and Canada is actually around 150 gallons.
- ▶ Of course cutting down on how much water we use in our homes and yards is important, but it is only part of the equation. The products that we buy also have their own water footprints that we inherit. How thirsty are some of those? Here's how H2O Converse breaks it down:
 - ▶ Steel for the average car takes about **32,000 gallons** of water to produce.
 - ▶ Every gallon of gas that a car burns takes **1.75 gallons** of water for refining.
 - ▶ It takes **24 gallons** of water to make 1 pound of plastic, so to produce the average soda (or water) bottle it takes **1.5 gallons** of water.
 - ▶ Each pound of cotton that makes up our sheets, blankets, towels and clothes takes **101 gallons** to produce.
 - ▶ A pound of beef takes over **1,500 gallons** of water.
 - ▶ A cheese sandwich is about **34 gallons** of water.
 - ▶ A bag of potato chips is **83 gallons** of water.

Turn off lights and fans



- ▶ Turn off lights when you're not in the room or don't need them. This is one of the easiest ways to start saving. Turn off fans, too, when you leave the room. Fans cool you, not the room.
- ▶ **SAVE EVEN MORE**
 - ▶ Turn off electronics when you're not using them
 - ▶ Use dimmer switches to avoid lighting a room more than you need
 - ▶ Use lights with motion sensors
- ▶ **FACTS & STATS**
 - ▶ It costs almost \$20 a year to leave one light on for 8 hours a day

Energy Star



- ▶ ENERGY STAR® is the government-backed symbol for energy efficiency, providing simple, credible, and unbiased information that consumers and businesses rely on to make well-informed decisions.
- ▶ ENERGY STAR products is the simple choice for energy efficiency, making it easy for consumers and businesses to purchase products that save them money and protect the environment. EPA ensures that each product that earns the label is independently certified to deliver the quality, performance, and savings that consumers have come to expect.

The background features abstract, overlapping geometric shapes in various shades of green, ranging from light lime to dark forest green. These shapes are primarily located on the right side of the frame, creating a modern, layered effect. The text is centered on the white background to the left of these shapes.

Ways you Save Energy & Money

Choose ENERGY STAR certified light bulbs (Replace 1 bulb)



- ▶ Replace 1 incandescent light bulb with an ENERGY STAR certified CFL or LED bulb. The ENERGY STAR label lets you know this bulb is independently certified and has undergone extensive testing to ensure energy savings and performance promises. CFL or LED bulbs are not all the same when it comes to performance. To get the energy efficiency and performance you expect, always look for the ENERGY STAR label.
- ▶ **SAVE EVEN MORE**
 - ▶ Same brightness (lumens) with fewer watts
 - ▶ Less frequent bulb replacements
- ▶ **FACTS & STATS**
 - ▶ An ENERGY STAR certified light bulb uses about 70 to 90 percent less energy and lasts 10-25 times longer. Most ENERGY STAR LED bulbs are dimmable. Check the package for more information.

LED Bulb Energy Efficiency

LED LUMENS TO WATTS CONVERSION CHART

| BRIGHTNESS IN LUMENS | | 220+ | 400+ | 700+ | 900+ | 1300+ |
|--------------------------------------------------------------------------------------------|-----|------|------|------|------|-------|
|  STANDARD | 25W | 40W | 60W | 75W | 100W | |
|  HALOGEN | 18W | 28W | 42W | 53W | 70W | |
|  CFL | 6W | 9W | 12W | 15W | 20W | |
|  LED | 4W | 6W | 10W | 13W | 18W | |

Traditional incandescent bulbs measure brightness in Watts. Since LED bulbs use far less energy than incandescent or CFL bulbs, their brightness is rated in Lumens. For example, a traditional 60-Watt light bulb emits over 800 Lumens. An LED equivalent may only measure 8.5 Watts, but it will still emit 800 Lumens and provide the same brightness levels.

Lumens = the amount of light the bulb gives off

Wattage = the amount of energy a bulb uses

LED Buying Guidance



LED Bulbs Made Easy Just Look for the ENERGY STAR®



- ★ Independently certified to deliver efficiency and performance.
- ★ Same brightness (lumens), 70–90% less energy (watts)
- ★ Lasts 15 times longer = big \$ savings
- ★ Help protect the environment and prevent climate change

Only LED bulbs that have earned the ENERGY STAR label have been independently certified and undergone extensive testing to assure that they will save energy and perform as promised.

ENERGY STAR certified LED bulbs are available in a variety of shapes and sizes for any application—including recessed cans, track lighting, table lamps, and more. You can even find certified bulbs that are dimmable. Use this chart as a guide to finding the right ENERGY STAR certified bulb for your light fixture and remember to always check the packaging for proper use.

| | BULB TYPES | | | | |
|----------------------|------------|--|--|--|--|
| TABLE OR FLOOR LAMPS | | | | | |
| PENDANT FIXTURES | | | | | |
| CeILING FIXTURES | | | | | |
| CeILING FANS | | | | | |
| WALL SCOFFCES | | | | | |
| RECESSED CANS | | | | | |
| ACCENT LIGHTING | | | | | |

BRIGHTNESS

For brightness, look for lumens, not watts. Lumens indicate light output. Watts indicate energy consumed. ENERGY STAR certified bulbs provide the same brightness (lumens) with less energy (watts). Use this chart to determine how many lumens you need to match the brightness of your old standard bulbs.

| Standard Bulbs (Watts) | ENERGY STAR Bulb Brightness (Minimum Lumens) |
|------------------------|----------------------------------------------|
| 40 | 450 |
| 60 | 800 |
| 75 | 1,100 |
| 100 | 1,600 |
| 150 | 2,600 |

COLOR/APPEARANCE

ENERGY STAR certified bulbs are available in a wide range of colors. Light color, or appearance, matches a temperature on the Kelvin scale (K). Lower K means warmer, yellowish light, while higher K means cooler, bluer light.



ENERGY STAR is the simple choice for energy efficiency. For more than 20 years, EPA's ENERGY STAR program has been America's resource for saving energy and protecting the environment. Join the millions making a difference at energystar.gov/lighting.

Plug electronics into a powerstrip



- ▶ Plugging electronics into a powerstrip provides a convenient 'turn-on/turn-off' point, so you can be sure your products are only on when you are using them.
- ▶ SAVE EVEN MORE
 - ▶ Save money on utility bills
- ▶ FACTS & STATS
 - ▶ It is estimated that stand by power accounts for more than \$11 billion in annual U.S. energy costs

Keep your refrigerator door closed



- ▶ Minimize the number of times you open your refrigerator. Plan accordingly so you don't have to leave the door open for prolonged periods of time. An open door allows warm, moist air in, which makes the compressor work harder.
- ▶ **SAVE EVEN MORE**
 - ▶ Recycle the old refrigerator in your garage or basement
- ▶ **FACTS & STATS**
 - ▶ The average refrigerator is opened 33 times a day.

Cover your pots on the stove



- ▶ To avoid wasting energy, always cover pots and pans to keep heat in. Trapping the heat will increase temperatures in the pan and cooking times can be reduced.
- ▶ **SAVE EVEN MORE**
 - ▶ Use your microwave instead of your stove
 - ▶ Match your pot size to your burner size
 - ▶ Keep burners clean on gas ranges to ensure maximum efficiency
- ▶ **FACTS & STATS**
 - ▶ Covering your pot when cooking on an electric cooktop reduces your carbon footprint by about 85 lbs of carbon dioxide per year.

Use the microwave for cooking



- ▶ Your microwave is the most efficient means of cooking. Learn to use it for as many cooking tasks as possible.
- ▶ **SAVE EVEN MORE**
 - ▶ Shorter cooking times
 - ▶ Less heat is generated so you can also save on air-conditioning costs during the summer
- ▶ **FACTS & STATS**
 - ▶ Reduce your cooking energy by as much as 80% when using the microwave

Turn the water off when not needed



- ▶ Turn off water while shaving or brushing your teeth to save water and energy. Even cold water requires energy to pump and treat.
- ▶ **SAVE EVEN MORE**
 - ▶ Install and use a low flow showerhead
 - ▶ Don't rinse dishes before putting in dishwasher
- ▶ **FACTS & STATS**
 - ▶ Turning the water off when brushing and shaving also helps preserve our nation's water resources

Use low-flow showerheads



- ▶ A low-flow showerhead beats out both the bath and an old-fashioned showerhead when it comes to efficiency, by saving water and the energy it takes to heat the water.
- ▶ **SAVE EVEN MORE**
 - ▶ Take shorter showers
 - ▶ Turn off the faucet while you brush your teeth or shave
- ▶ **FACTS & STATS**
 - ▶ With a new 2.5 gallon-per-minute (low-flow) showerhead, a 7-minute shower uses less water than a full bath.

Lower your water heater temperature



- ▶ Set your water heater thermostat at 120 degrees F or lower. This way you'll reduce the amount of energy it takes to produce and maintain your hot water by not overheating it.
- ▶ SAVE EVEN MORE
- ▶ Turn off electric heaters and turn down gas heaters when you're away on vacation
- ▶ FACTS & STATS
- ▶ The average household spends more than \$250 per year on water heating; the second largest energy expenditure behind heating and cooling

Find and fix leaky faucets

- ▶ Repair hot water faucet leaks in the kitchen and bathroom. A leaky faucet can waste gallons of water, plus the energy that it takes to heat the make-up water that replaces it. Fixing drips is an easy and cost-effective way to save energy and water.

- ▶ **SAVE EVEN MORE**

- ▶ Use a low-flow showerhead
- ▶ Don't run the water while shaving or brushing your teeth
- ▶ Fix running toilets

- ▶ **FACTS & STATS**

- ▶ A faucet leak amounting to one drip per second would add up to over 1,600 gallons over the course of a year.



Use drapes to stay comfortable



- ▶ During cold weather, take advantage of the sun's warmth by keeping drapes open on south facing windows during daylight hours. To keep out the heat of the summer sun, close window shades and drapes in warm weather.
- ▶ **SAVE EVEN MORE**
 - ▶ Close shades and drapes after the sun goes down to help improve insulation and prevent heat loss
 - ▶ Opening shades allows natural light in and reduces the need to turn on lights during daytime hours
- ▶ **FACTS & STATS**
 - ▶ Glass windows without shading allow between 75-80 percent of transmitted solar energy through, where vertical or venetian blinds allow 0-5 percent

Use your ceiling fan



- ▶ Use a ceiling fan so you can turn down your air-conditioner. This way you can lower your energy bill and still stay comfortable. Just be sure to turn it off when you leave the room. Ceiling fans cool people, not the room.
- ▶ **SAVE EVEN MORE**
 - ▶ Reverse your fan in winter to produce a gentle updraft, forcing warm air near the ceiling down into the living space
 - ▶ If your fan has lights, make sure they are ENERGY STAR certified
- ▶ **FACTS & STATS**
 - ▶ ENERGY STAR certified ceiling fans with lights are 60 percent more efficient and can save \$165 in energy costs over the fan's 10-year lifetime

Keep windows & doors closed



- ▶ Make sure your windows and doors are closed when the air conditioning or heat is on to keep your warmed or cooled air in the house.
- ▶ **SAVE EVEN MORE**
 - ▶ Seal gaps around windows and doors where air can leak out
- ▶ **FACTS & STATS**
 - ▶ An open window can result in a 20 percent airflow loss

Wash clothes in cold water

- ▶ Use the cold water setting on your clothes washer to use less energy on heating water.
- ▶ **SAVE EVEN MORE**
 - ▶ Use lower water settings for smaller loads
 - ▶ Wash full loads
 - ▶ Longer spin times reduce the amount of drying energy needed
- ▶ **FACTS & STATS**
 - ▶ Water heating makes up about 90% of the energy it takes to operate a clothes washer. Specially formulated laundry detergents are available for cold water washing.



Use the clothes dryer efficiently

- ▶ With more than 80 percent of US homes having a clothes dryer - accounting for 6 percent of residential electricity consumption - it's important to use them as efficiently as possible.

- ▶ **SAVE EVEN MORE**

- ▶ Use a low heat setting to use less energy
- ▶ Don't overstuff the dryer, causing longer drying cycles
- ▶ Use the moisture sensor option to avoid over-drying clothes

- ▶ **FACTS & STATS**

- ▶ Cleaning the lint trap after each use is one of the easiest things you can do to improve air circulation and increase the efficiency of the dryer



Don't over dry your clothes



- ▶ If your dryer has a sensor that automatically turns it off when the clothes are dry, use it. Don't waste energy heating clothes that are already dry.
- ▶ **SAVE EVEN MORE**
 - ▶ Air dry clothes outside during warmer months or on a drying rack inside
 - ▶ Dry full loads
 - ▶ Clean the lint trap before every load
- ▶ **FACTS & STATS**
 - ▶ Clothes dryers account for approximately 6 percent of residential electricity use

Caulk and weather-strip around windows and doors



- ▶ Check for signs of air leakage around windows and doors. Then use caulk and weather-stripping to stop the leaks.
- ▶ **SAVE EVEN MORE**
 - ▶ When replacing windows and doors, look for ENERGY STAR
 - ▶ Close shades and drapes after the sun goes down to help improve insulation and prevent heat loss
- ▶ **FACTS & STATS**
 - ▶ Homeowners typically save up to \$200 a year in heating and cooling costs by air sealing their homes and adding insulation

Seal leaks in your home's attic, basement, or crawlspace



- ▶ Vents, ducts, or electrical wires often have holes or gaps around them which can allow the air in your home to escape, increasing your energy bill and causing more drafts in your house. Seal small gaps with caulk and holes up to 3 inches in diameter with spray foam.

- ▶ **SAVE EVEN MORE**

- ▶ Seal your attic hatch or door
 - ▶ After sealing air leaks add insulation

- ▶ **FACTS & STATS**

- ▶ Homeowners typically save up to \$200 a year in heating and cooling costs by air sealing their homes and adding insulation.

Add insulation to your home to improve comfort and efficiency



- ▶ Adding insulation can be a difficult do-it-yourself project, but the benefits can be substantial. If you are doing a home renovation project, now may be a great time to tackle this project
- ▶ **SAVE EVEN MORE**
 - ▶ EPA recommends sealing air leaks with caulk, spray foam, and weather stripping before adding insulation.
 - ▶ Seal and insulate your attic hatch or door
- ▶ **FACTS & STATS**
 - ▶ Homeowners typically save up to \$200 a year in heating and cooling costs by air sealing their homes and adding insulation.

For more tips on Energy & Water Conservation:

- ▶ Visit:

- ▶ <https://www.energystar.gov/campaign/home>



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