Office of the Ohio
Consumers' Counsel

Your Residential Utility Consumer Advocate

CONSUMERS' FACT SHEET

Office of the Ohio Consumers' Counsel

10 West Broad Street
Suite 1800, Columbus, OH
43215-3485

E-MAIL:
occ@occ.ohio.gov

WEBSITE:
www.occ.ohio.gov

Energy Efficiency Answers

DID YOU MAKE THE GRADE?

The Office of the Ohio Consumers' Counsel (OCC) supports energy efficiency as a method to reduce energy usage and your monthly electric, natural gas and water bills. This is the answer sheet to the pop quiz *Energy Efficiency Questions - Do You Make the Grade.* See how many you got right and if you made the grade.

1. Which uses less energy…

A. A plasma television?
B. An LCD television?
C. An LED television?

Answer: C
LED (light-emitting diode) televisions are typically thinner, generate less heat, and use about 20 percent less energy than an LCD TV according to EnergyStar.gov. Plasma televisions use the most energy and generate considerable heat, which is wasted energy. According to an article in the *Wall Street Journal,* a 42-inch plasma set can consume more electricity than a full-size refrigerator.

2. Which uses less energy…

A. Gaming through a game console?
B. Gaming on a laptop or tablet?

Answer: B
Streaming through a game console uses up to 10 times more energy than streaming on a laptop or tablet. Learn tips to reduce power consumption while gaming at www.energystar.gov.

3. Which uses less energy…

A. An electric hot water heater?
B. A natural gas hot water heater?

Answer: B
It usually costs more to heat the same amount of water with electricity as it does with natural gas.

4. Which uses less energy…

A. A refrigerator with a top freezer?
B. A side-by-side refrigerator?

Answer: A
Top freezer models use 10 to 25 percent less energy than side-by-side models.

5. Which uses less energy…

A. A refrigerator with the freezer on the bottom?
B. A refrigerator with the freezer on the top?

Answer: B
In general, refrigerators with top-mounted freezers use less energy than refrigerators with either side-mounted or bottom-mounted freezers.

6. Which uses less energy…

A. A front-loading washer?
B. A top-loading washer?

Answer: A
Front-loading washers require less water, hold larger loads and save energy in reduced water heating.

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7. Which uses less energy…

A. An incandescent light bulb?
B. A light-emitting diode (LED)?
C. A compact fluorescent light (CFL) bulb?

Answer: B
LED lighting differs from incandescent and compact fluorescent lighting in several ways. When designed well, LED lighting can be more efficient, durable, versatile and longer lasting.

8. Which uses less energy…

A. A chest freezer?
B. An upright freezer?

Answer: A
Chest freezers are usually more efficient than upright freezers. Chest freezers are better insulated and cold air does not spill out as easily when the door is opened.

9. To save energy you should…

A. Turn your computer completely off?
B. Leave it in standby mode?

Answer: A
Turn it off. Personal computers (PCs) use about the same amount of energy to startup as they use when they are on for about two seconds. Turn off the monitor if you aren't going to use your PC for more than 20 minutes. Turn off both the CPU and monitor if you're not going to use your PC for more than 2 hours. For additional energy savings plug monitors, printers, and other accessories into a power strip/surge protector and turn off its switch when this equipment is not in use for extended periods.

10. To save energy you should…

A. Turn off the lights every time you leave the room?
B. Leave them on until you return?

Answer: A
It saves energy to turn off lights when you leave the room. However, the cost effectiveness of turning CFLs off to conserve energy is a bit more complicated. A general rule-of-thumb is this: If you will be out of a room for 15 minutes or less, leave it on; if you will be out of a room for more than 15 minutes, turn it off.

11. To save energy in the winter you should…

A. Turn the thermostat down if you are leaving the house for eight hours?
B. Leave the thermostat where it is to keep the house warm?

Answer: A
Turning your thermostat back 10° to 15° can save 5 to 15 percent on your heating bill with as much as 1 percent savings for each degree if the setback period is eight hours long.

12. To save energy you should…

A. Check your furnace filter every six months?
B. Check it every month?

Answer: B
Check your filter every month, especially during heavy use months. If the filter looks dirty after a month, change it. At a minimum, change the filter every 3 months. A dirty filter slows air flow and makes the system work wasting energy.

13. To save energy in the summer you should…

A. Turn the thermostat up when you are leaving the house for eight hours?
B. Leave the thermostat set where it is to keep the house cool?

Answer: A
You can save energy in the summer by setting the thermostat to 78°F and setting it higher while you are asleep or away from home. Turning your thermostat back 7° to 10° for 8 hours can save up to 10 percent a year on your cooling bill.

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The Office of the Ohio Consumers' Counsel (OCC), the residential utility consumer advocate, represents the interests of 4.5 million households in proceedings before state and federal regulators and in the courts.

The state agency also educates consumers about electric, natural gas, telephone and water issues.

For more information, please visit the OCC website at www.occ.ohio.gov.

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14. Your favorite shirt is dirty and you really want to wear it. You should…

A. Wash it by itself so you can wear it?
B. Wear something different?

Answer: B
It is best to decide to wear something different or do a full load of laundry if you wash the shirt.

15. To save energy you should…

A. Check the lint filter in your dryer every week?
B. Check it before and after every load?

Answer: B
Dryer lint filters should be checked before or after each load because lint in the filter makes the dryer run less efficiently and is a fire hazard.

16. To save energy you should…

A. Wash a full load of dishes by hand?
B. Wash the same dishes in the dishwasher?

Answer: B
Recent studies show washing full loads of dishes in a dishwasher uses less energy than hand washing the same load.

17. Which uses less energy…

A. Streaming movies on a game console?
B. Streaming on an Internet-ready TV or small media player?

Answer: B
Streaming movies on a game console consumes 10 to 20 times more energy to stream a movie than an Internet-ready TV or a small media player, which can use 4 or fewer watts to do the same thing.

18. Which uses less energy…

A. A full refrigerator?
B. An empty refrigerator?

Answer: A
A full refrigerator retains cold better than an empty one. All the cold items enable the refrigerator to recover faster after the door has been opened. However, don't overfill it. This interferes with the circulation of cold air inside.

19. Which uses less energy…

A. Taking a shower?
B. Taking a bath?

Answer: A
Generally, it takes less water to take a shower than a bath. To test this, put the plug in the tub the next time you take a shower. After your shower, see how much the tub filled up. If there is less water than you would usually have in a bath, then you will probably save energy by taking a shower instead of a bath.

20. To save energy you should…

A. Charge your cell phone only when it needs charged?
B. Leave it on the charger all night?

Answer: A
Cellular phones should be charged only when they need charging and for the recommended charging time; over charging your cell phone over charges your electric bill. Chargers should also be unplugged when not in use to avoid vampire (standby) power.

Did you make the grade?
Count the answers you got correct. Then assign 5 points to every right answer.

A = 80 to 100 points
B = 55 to 75 points
C = 25 to 50
D = 10 to 20
F = 0 to 5 points

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