

ENERGY CONSERVATION TIPS

COMPUTERS AND HOME OFFICE EQUIPMENT

- Turn your computer off when not in use. Much of the energy use associated with computers is wasted because PC's are often left on when not in use, including nights, weekends, and even extended periods of inactivity during the day. Most experts agree that turning your computer on and off will have no significant effect on their operation or life.

Entertainment Electronics					
Appliance	Watts	Hours Used	kWh / day	Monthly	.10c / kWh
Sattelite Dish	30	8	0.24	7	\$0.72
VCR From	17	3	0.051	2	\$0.15
VCR To	21	3	0.063	2	\$0.19
DVD From	20	3	0.06	2	\$0.18
DVD To	25	3	0.075	2	\$0.23
Original Xbox	80	4	0.32	10	\$0.96
Xbox 360	160	4	0.64	19	\$1.92
Playstation 2	45	4	0.18	5	\$0.54
Playstation 3	194	4	0.776	23	\$2.33
Wii	18	4	0.072	2	\$0.22

Televisions					
Appliance	Watts	Hours Used	kWh / day	Monthly	.10c / kWh
19" From	65	8	0.52	16	\$1.56
19" To	110	8	0.88	26	\$2.64
27"	113	8	0.904	27	\$2.71
36"	133	8	1.064	32	\$3.19
53"-61" Projection	170	8	1.36	41	\$4.08
Flat Screen	120	8	0.96	29	\$2.88
42" Plasma	270	8	2.16	65	\$6.48
42" LCD	176	8	1.408	42	\$4.22

In the Office					
Appliance	Watts	Hours Used	kWh / day	Monthly	.10c / kWh
CPU Awake	120	3	0.36	11	\$1.08
CPU Asleep	30	21	0.63	19	\$1.89
Laptop	50	3	0.15	5	\$0.45
Copier	1265	1	1.265	38	\$3.80
Fax Machine	45	1	0.045	1	\$0.14
Printer	660	1	0.66	20	\$1.98

- Turn off your display device or monitor when not in use. If you must leave your computer on for network applications or other purposes, it makes sense to turn off monitors. Monitors consume a significant portion of the energy used by PC's.
- Use a laptop. A typical laptop computer has a maximum power consumption of 15 watts, and extensive power management capabilities. A typical desktop PC, with display, consumes about 10 times that or 150

watts, and has limited power management features. The potential energy savings from substituting PC's with portable laptops are large, up to 90% or more.

- Turn printers off when not in use. Printers are typically left on for extended periods of time but are active only for only a small percentage of that time.
- Select a printer with power management capabilities. Printers with automatic "power down" features can reduce electricity use by over 65%. Printers automatically power down to 15-45 watts, depending on the number of pages per minute produced, after specified periods of inactivity.
- Avoid using full-page cover sheets. Use stick-on labels on the first page of your fax. This will not only reduce the energy use of the fax machine, but it will also save paper and telephone charges.
- Plug home electronics, such as TVs and DVD players, into power strips; turn the power strips off when the equipment is not in use- TVs and DVDs in standby mode still use several watts of power.
- Look for the ENERGY STAR® label on light bulbs, home appliances, electronics, and other products.

HEATING & COOLING

- Set your thermostats at 78°F in the summer and 68°F in the winter and leave them there. You can immediately realize a 3% to 5% decrease in energy use for every degree you adjust the thermostat setting

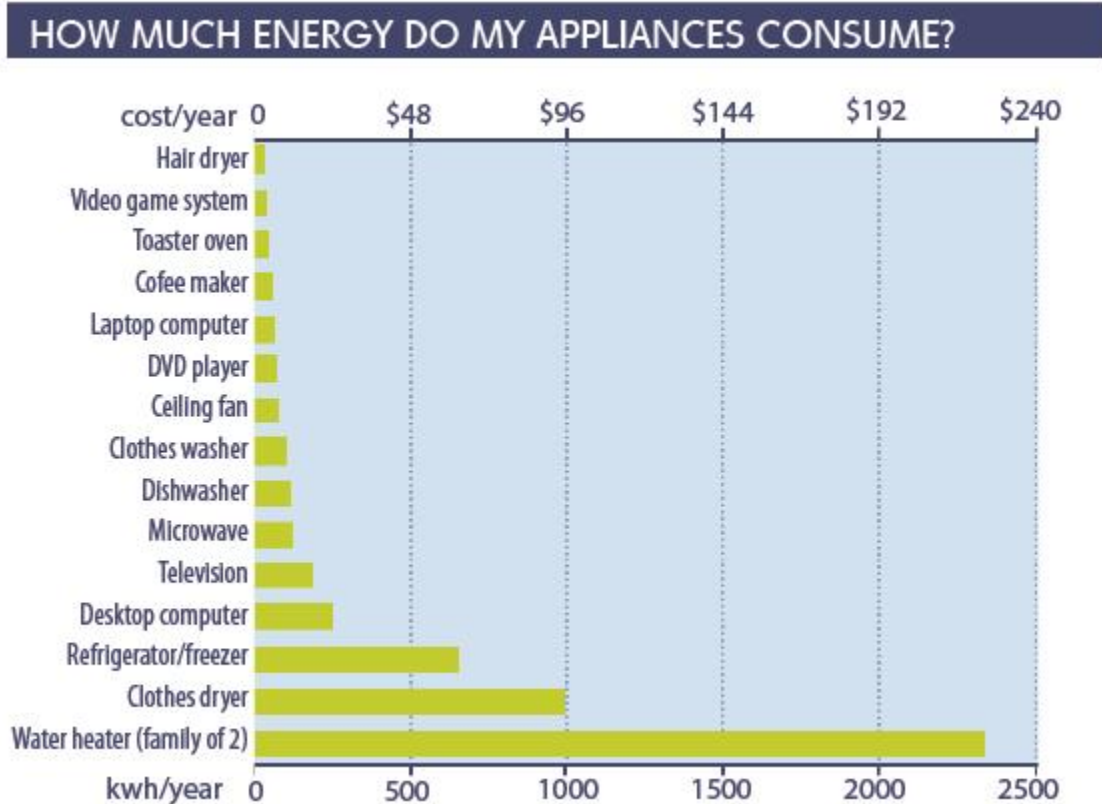
Heating/Cooling					
Appliance	Watts	Hours Used	kWh / day	Monthly	.10c / kWh
<i>Ceiling Fan From</i>	65	8	0.52	16	\$1.56
<i>Ceiling Fan To</i>	175	8	1.4	42	\$4.20
<i>Table Fan From</i>	10	1	0.01	0	\$0.03
<i>Table Fan To</i>	25	1	0.025	1	\$0.08
<i>Window Fan From</i>	55	8	0.44	13	\$1.32
<i>Window Fan To</i>	250	8	2	60	\$6.00
<i>Portable Heater From</i>	750	4	3	90	\$9.00
<i>Portable Heater To</i>	1500	4	6	180	\$18.00
Furnace	750	8	6	180	\$18.00
<i>Dehumidifier</i>	785	8	6.28	188	\$18.84
<i>Single Electric Blanket</i>	60	8	0.48	14	\$1.44
<i>Double Electric Blanket</i>	100	8	0.8	24	\$2.40
<i>Whole house From</i>	240	8	1.92	58	\$5.76
<i>Whole house To</i>	750	8	6	180	\$18.00

above or below your normal setting. <

- Turning back the thermostat by 10-15 degrees when you're not a home can save you around 10% a year on heating/cooling bills
- Thermostats should never be turned up high or low to heat or cool a home in a hurry. It won't heat or cool your home any faster – and you will be using more energy.
- Make sure furniture, curtains and rugs don't block the flow of air from vents and air registers. Hold a ribbon or a feather up to windows and doors to check for any drafts. Put in weather stripping or caulking to keep the outside air out and to keep the air conditioning/heating in if there are drafts.
- In the summer, keep curtains and shades closed. In the winter, open curtains and shades to let the sun warm your home naturally.
- If possible, shade your air conditioning unit. If it is in direct sunlight, it can use up to 5% more energy than if it was in the shade.
- Use fans to cool your home instead of air conditioners. You can soak a thin t-shirt and attach it to the fan to allow the air to blow through the t-shirt to get cool.
- During summer months, avoid using appliances that give off heat during the hottest times of the day as they will make your cooling system work harder. Do your cooking, washing and clothes drying in the morning or in the late evening, when the demand on your cooling system is less.

GENERAL TIPS

- Wait until your dishwasher is full before using it. Automatic dishwashers require the same amount of hot



wash a partial load as a full load.

- In the summer, run your ceiling fan counter-clockwise to force the colder air down and draw hot air up. In the winter, change your ceiling fan to run clockwise to pull cold air up and force hot air down.
- Unplug cell phone chargers, hair dryers, and curling irons when not in use.

LIGHTING

- Use smaller lamps over work areas such as desktops so work can be done without lighting the whole room.
- Replace your incandescent lightbulbs with fluorescent bulbs, which last longer and use less 75% energy.

APPLIANCES

In the Laundry Room					
Appliance	Watts	Hours Used	kWh / day	Monthly	.10c / kWh
<i>Clothes Washer From</i>	350	2	0.7	21	\$2.10
<i>Clothes Washer To</i>	500	2	1	30	\$3.00
<i>Clothes Dryer From</i>	1800	2	3.6	108	\$10.80
<i>Clothes Dryer To</i>	5000	2	10	300	\$30.00
<i>Clothes Iron From</i>	1000	1	1	30	\$3.00
<i>Clothes Iron To</i>	1800	1	1.8	54	\$5.40

- Make sure furnace filters are changed at least twice a year.
- Wash a full load at a time but do not overload. A small load in a washing machine consumes just as much energy as a full load.
- Use cold water to wash clothes as often as possible – save washing in warm water for whites or hard-to-clean items. Clothes washed in cold water fade less and have fewer wrinkles. Always rinse in cold.
- When using a dryer, wait until you have a full load. Separate drying loads into heavy and lightweight items. The lightweight items take less time to dry, so the dryer doesn't have to be on for as long with these loads.
- Clean the lint filter thoroughly after each load. A clogged filter restricts the flow of air and reduces the performance of the dryer.
- About once a year, drain one gallon of water from the faucet at the bottom of your water heater to get rid of the sediment in the water and help increase the efficiency of your water heater.
- Set the water heater thermostat to 120°F and install a 'booster' in your dishwasher to increase the water temperature to the 140°F that is recommended for washing dishes

In the Kitchen					
Appliance	Watts	Hours Used	kWh / day	Monthly	.10c / kWh
<i>Refrigerator - Frost Free 16 CF</i>	725	24	17.4	522	\$52.20
<i>Coffee Maker From</i>	900	2	1.8	54	\$5.40
<i>Coffee Maker To</i>	1200	2	2.4	72	\$7.20
<i>Blender</i>	300	1	0.3	9	\$0.90
<i>Garbage Disposal</i>	450	1	0.45	14	\$1.35
<i>Dishwasher From*</i>	1200	1	1.2	36	\$3.60
<i>Dishwasher To</i>	2400	1	2.4	72	\$7.20
<i>Microwave Oven From</i>	750	1	0.75	23	\$2.25
<i>Microwave Oven To</i>	1100	1	1.1	33	\$3.30
<i>Toaster From</i>	800	0.3	0.24	7	\$0.72
<i>Toaster To</i>	1400	0.3	0.42	13	\$1.26
<i>Toaster oven</i>	1225	0.3	0.3675	11	\$1.10
<i>Hair dryer From</i>	1200	0.3	0.36	11	\$1.08
<i>Hair dryer To</i>	1875	0.3	0.5625	17	\$1.69

You can also find information about average monthly electricity bills by state on the US Energy Information Administration website. This information can be found at <http://www.eia.gov/cneaf/electricity/esr/table5.html>

WATER CONSERVATION TIPS

WATCH FOR LEAKS—HAVE THEM REPAIRED

- A dripping faucet is more than annoying...it is expensive. A leaky faucet that drips at a rate of one drop per second can waste up to 2,700 gallons a year.
- Leaks inside the toilet can waste up to 300 gallons of water a day. Toilet leaks can be detected by adding a few drops of food coloring to water in the toilet tank. If the colored water appears in the bowl, the toilet is leaking.

HOW TO SAVE WATER IN THE BATHROOM

- Shorten your shower by a minute or two and you'll save up to 150 gallons per month.
- Turn the water off while you brush your teeth and save over two gallons a minute.
- Take showers instead of tub baths. Limit showers to five (5) minutes. A full tub requires about 70 gallons of water; a shower of less than five (5) minutes uses about 12-20 gallons. That's a savings of about 1,000 gallons per month.
- Install a low-flow showerhead in your bathroom. This can cut your water usage by up to 50%.
- Make sure there are water-saving aerators on all of your faucets. They inject air into the water as it leaves the faucet to help you save 2 - 15 gallons of water per day.

HOW TO SAVE WATER IN THE KITCHEN AND LAUNDRY

- Refrigerate a bottle of drinking water instead of letting a faucet flow until the water is cold enough to drink. Designate one glass for your drinking water each day or refill a water bottle. This will cut down on the number of glasses to wash.
- Do not use running water to thaw meat or other frozen foods. Defrost food overnight in the refrigerator, or use the defrost setting on your microwave.
- Soak pots and pans instead of letting the water run while you scrape them clean. When doing dishes, fill your second sink with clean water for rinsing instead of using running water to rinse.
- Minimize use of your garbage disposal. Start a compost pile or throw away any garbage scraps to avoid using water with your disposal.

MAJOR APPLIANCES

- Save water and money by choosing efficient showerheads, dishwashers, and other appliances. Look for the WaterSense label.
- Cut down on the amount of rinsing you do before loading the dishwasher. Most modern dishwashers do an excellent job of cleaning dishes, pots, and pans all by themselves. Dishwashers use as much as 25 gallons per cycle.
- Clothes washers can use as much as 30-35 gallons of water per cycle. Wait until you have a full load of laundry before running the machine to save both water and energy. If you can't wait for a full load, use the right water level to match the size of the load. Use as low a water temperature as possible for the wash cycle of your clothes.

OTHER WAYS TO CONSERVE WATER

- Use a rain barrel to collect rain and help water your plants. Forty percent of the average homeowner's water use is outdoors. Rain barrels reduce the stress on municipal water systems during the dry, summer months.

- Plant a rain garden to add beauty to your yard, while absorbing and filtering runoff. Water absorbed in a rain garden will filter pollution otherwise headed for streams.
- Dispose of chemicals properly at a hazardous waste drop off center – don't pour them on the ground, into the sewer, or down the drain.
- Avoid using pesticides or herbicides on your yard and garden -- the chemicals can contaminate groundwater and streams, and can also hurt kids and pets

CONSERVATION TIPS & FACTS

BY **CONSERVICE**
The Utility **Experts**

A RUNNING BATHROOM FAUCET

= 2 gallons/minute



- Don't let the faucet run while shaving or brushing your teeth.
- In the kitchen, wash fruit and vegetables in a pan rather than letting the water run.
- Keep a pitcher of water in the fridge to avoid wasting time waiting for the water to cool.

7 MINUTE SHOWER =
14 GALLONS



36 + GALLONS
TO FILL A TUB

- Take a short shower rather than a bath to save water.
- Even a one or two minute reduction in shower time can save up to 700 gallons a month.

a leaky toilet can
WASTE

200 gallons
EVERY DAY



- Wait until the dishwasher is full before running it to get the most out of each load.
- When washing dishes by hand, use the least amount of detergent possible to minimize need for excessive rinsing.
- Throw away food scraps rather than putting them down the disposal, which wastes water and is harder on your plumbing.

- Check your toilet for leaks regularly to ensure you aren't wasting water.
- Save over 500 gallons per person a month by using a low flow (1.6 gal/flush) tank vs. an older model (5 gal/flush).

- Wash full loads of laundry to reduce total number of loads needed.
- If your washing machine has energy-saving settings, use those settings whenever possible.

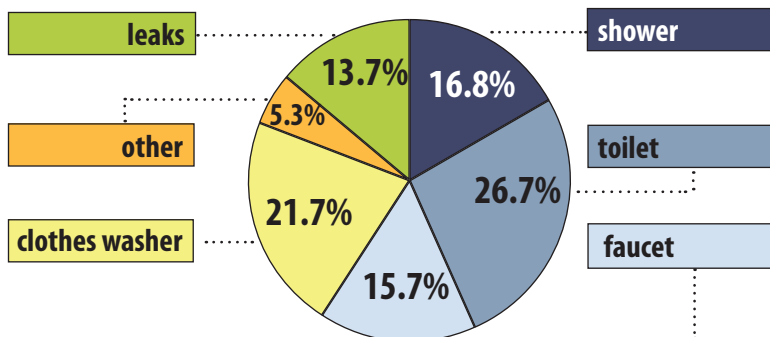


DISHWASHER =
4.6 GAL/LOAD
vs. 20 GAL
BY HAND



high efficiency < older models
less than up to
25 40
GALLONS/LOAD GALLONS/LOAD

AVERAGE HOUSEHOLD WATER USAGE



Source: American Water Works Association Research Foundation, "Residential End Uses of Water"

When you
CONSERVE
you save.

sources:

www.epa.gov/watersense

www.nationalgeographic.com/everyday/greenhouse/tips

CONSERVATION TIPS & FACTS

BY **CONSERVICE**
The Utility **Experts**



a Playstation 3
uses

194

WATTS
within 4 hours

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- Look for the ENERGY STAR® label on light bulbs, home appliances, electronics, and other products.

42" FLAT SCREEN TVs

PLASMA

270

WATTS PER
8 HOURS

VS

LCD

176

WATTS PER
8 HOURS

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- Unplug cell phone chargers, hair dryers, and curling irons when not in use.

unplugging unused
electronics can save you
as much as **10%**
on your
electricity bill

a LAPTOP uses

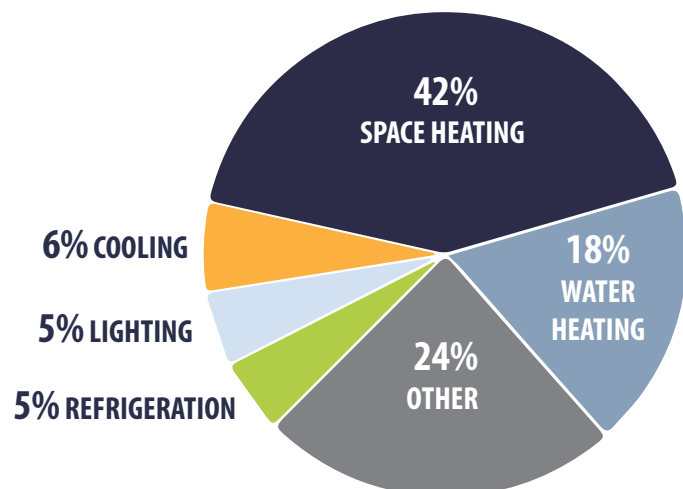
50 WATTS every
3 hours used

compared to
120 WATTS for a
desktop computer



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AVERAGE HOUSEHOLD ENERGY USAGE



When you
CONSERVE
you save.

sources:

<http://www.eia.gov/cneaf/electricity/esr/table5.html>

<http://energy.gov/articles/are-energy-vampires-sucking-you-dry>

U.S. Energy Information Administration, AEO2014 Early Release Overview