ASK ABOUT ENERGY STAR

Reducing appliance energy use

Electricity use is on the rise in most homes. One reason we're using more electricity is because we're using more electronic equipment. We have home computer systems, home entertainment systems, DVD players, digital cable boxes, gaming consoles, and a multitude of devices that require charging such as cell phones and digital cameras. These are in addition to the traditional home appliances (refrigerators, stoves, clothes washers, etc.). Some of these appliances use electricity even when they are turned off. The average Wisconsin homeowner spends about $400 per year on electricity to run their appliances and household electronic equipment.

BUYING EFFICIENT APPLIANCES

One way to reduce appliance energy use is to buy the most energy-efficient appliances available. When you're in the market for a new appliance or other household electronic equipment, look for ENERGY STAR® qualified products. The ENERGY STAR is awarded to those products that meet or exceed established criteria for energy efficiency and are as much as 10 percent to 50 percent more efficient than their conventional counterparts. They use less energy and save you money.

Refrigerators and air conditioners

In many households, the refrigerator uses more energy than any other household appliance. An average older model uses more than 1,000 kWh per year. New models that meet the federal appliance efficiency standards use only 514 kWh per year. ENERGY STAR qualified refrigerators are at least 10 percent more efficient with some units as much as 30 percent more efficient than the Federal Standard. Replacing an older refrigerator with an ENERGY STAR qualified model can save you up to $100 in annual energy costs. Even if your old refrigerator still runs, it makes economic sense to replace it.

	ANNUAL OPERATING COST		
REFRIGERATORS	TOP FREEZER (AUTOMATIC DEFROST)	SIDE-BY-SIDE (AUTOMATIC DEFROST)	BOTTOM FREEZER (AUTO DEFROST)
Typical 1970s model	$138	$172	$120
Typical 1980s model	$88	$121	$96
Typical 1990s model	$57	$76	$80
Current federal standard	$38	$55	$45
ENERGY STAR standard	$34	$50	$39

Conventional room air conditioners are also high energy users. Even if your current air conditioner still runs, it may be cost-effective to replace it with an ENERGY STAR qualified model. Doing so can save you an average of $14 a year in energy costs.

HOME ELECTRONIC EQUIPMENT

Many home electronics use electricity even when the equipment is switched off. Standby electricity accounts for about four to seven percent of total electrical consumption in Wisconsin homes (40 to 70 watts—equivalent to leaving an incandescent light bulb burning all the time). Any appliance with an external power supply, remote control, or clock display requires standby electricity. ENERGY STAR qualified home electronics use as much as 50 percent less energy to perform these same functions at the same price as less efficient models.

Computers and monitors

Frequently, computer equipment is turned on and left on even if it is not being used. ENERGY STAR qualified computer equipment has a "sleep" mode that reduces the power consumption when the equipment is on but not being used. An ENERGY STAR qualified monitor consumes up to 60 percent less energy than standard models depending how they are used. Enabling your monitor's power management features and turning it off at night not only saves energy, but also helps computer monitor equipment run cooler and last longer.

COMMON HOUSEHOLD APPLIANCES				
EQUIPMENT	**TYPICAL WATTAGE**	**HOURS IN USE (PER MONTH)**	**KWH/MONTH**	**ESTIMATED YEARLY COST**
Air Conditioner		(hours listed are for typical July)		(AC operated 4 months/year)
Central (30,000 BTU)				
Conventional SEER 7.5	4,000	180	720	$345.60
Conventional SEER 10	3,000	180	540	$259.20
ENERGY STAR SEER 13	2,300	180	414	$198.72
Room (8,000 BTU)				
Conventional EER 7.5	1,070	180	193	$92.64
Conventional EER 10	800	180	144	$69.12
ENERGY STAR EER 11	730	180	131	$62.88
Aquarium Pump	Varies	730	Varies	up to $720.00
Blender	300	*	*	up to $1.20
Broiler (portable)	1,200	7	8.0	$11.52
Can Opener	100	*	*	up to $1.20
Clock Radio	10	730	7.3	$10.51
Clothes Dryer - electric				
Used with conventional clothes washer			38.5	$55.44
Used with ENERGY STAR clothes washer			31.2	$44.88
Clothes Dryer - gas				
Used with conventional clothes washer			1.53 therms/month	$18.36
Used with ENERGY STAR clothes washer			1.25 therms/month	$15.00
Clothes Washer (7.5 loads/week)				
Conventional with electric water heater	N/A	N/A	29	$41.40
ENERGY STAR with electric water heater	N/A	N/A	16	$23.40
Conventional with gas water heater	N/A	N/A	3 kWh plus .67 therms	$20.94
ENERGY STAR with gas water heater	N/A	N/A	2 kWh plus .67 therms	$11.94
Coffee Maker (drip)				
Brew Cycle	1,100	8	9	$12.96
Warm	70	57	4	$5.76
Convection Oven (portable)	1,500	3	5	$7.20
Curling Iron	40	*	*	up to $1.80
Deep Fryer				
Regular Size	1,500	2	3	$4.32
Small Size	600	2	1	$1.44
Dehumidifier		(8 hours/day)		(operated 4 months/year)
Conventional (40 pint)	900	240	216	$103.68
ENERGY STAR (40 pint)	600	240	144	$69.12
Dishwasher (4 loads/week)				
Conventional with electric water heater	N/A	N/A	31	$43.92
ENERGY STAR with electric water heater	N/A	N/A	27	$39.00
Conventional with gas water heater	N/A	N/A	16	$23.00
ENERGY STAR with gas water heater	N/A	N/A	14	$20.00
Electric Blanket (operated 4 months per year)	75	240	18	$8.64
Fan				
Ceiling Fan	100	250	25	$36.00
ENERGY STAR Ceiling Fan	40	250	10	$14.40
Window Fan	200	150	30	$43.20
Furnace Fan				
Standard Furnace fan–auto fan operation	N/A	N/A	N/A	$124.00
Standard Furnace fan–continuous fan operation	N/A	N/A	N/A	$561.00
ECM Furnace fan–auto fan operation	N/A	N/A	N/A	$73.00
ECM Furnace fan–continuous fan operation	N/A	N/A	N/A	$151.00
Food Processor	720	*	*	up to $1.20
***CALCULATED AT 12¢ PER KWH**				

***Uses less than one kWh/month; costs less than 12 cents per month to operate.**

COMMON HOUSEHOLD APPLIANCES				
EQUIPMENT	**TYPICAL WATTAGE**	**HOURS IN USE (PER MONTH)**	**KWH/MONTH**	**ESTIMATED YEARLY COST**
Freezer (usage varies depending on type and features)				
Conventional	N/A	N/A	35–59	$50–$85.00
ENERGY STAR	N/A	N/A	31–55	$45–$77.00
Frying Pan	1,200	7	8	$11.52
Game Consoles (see table on page 4)				
Garage Door Opener	350	3	1	$1.44
Garbage Disposal	445	*	*	up to $1.80
Hair Dryer (hand held)	1,400	2	3	$4.32
Heat Lamp (infrared)	250	4	1	$1.44
Hot Tub	Varies	Varies	Varies	$540.00
Humidifier (portable)	175	149	26	$37.44
Iron (steam)	1,200	4	5	$4.80
Mattress Pad Heater (full-queen)	180	122	22	$31.68
Microwave Oven (full power)	1,500	7	10	$14.40
Nightlight	7	730	5	$7.20
Radio	8	730	6	$8.64
Range (electric)	12,200	6	75	$108.00
Refrigerator (see table on page 1)				
Sandwich Grill	1,150	3	3	$4.32
Sewing Machine	75	13	1	$1.44
Slow Cooker	200	50	10	$14.40
Space Heater	1,500	90	135	$194.40
Swimming Pool Pump (1/2 hp)	600	730	432	$622.08
Toaster (two slice)	1,100	3	3	$4.32
Toaster Oven/Broiler				
Toaster	1,500	2	3	$4.32
Oven	1,500	3	5	$7.20
Broiler	830	5	4	$5.76
Toothbrush (with charger)	1	730	1	$1.44
Trash Compactor	460	2	1	$1.44
Vacuum Cleaner	1,000	6	6	$8.64
Waterbed (king size 90°F)				
Room 70°F With Comforter	370	332	123	$177.12
Room 60°F With Comforter	370	527	195	$280.80
Water Heater (based on daily hot water usage of 70.4 gallons)				
Natural Gas standard (EF = 0.58)	N/A	N/A	N/A	$258.33
Natural Gas high efficiency (EF = 0.64)	N/A	N/A	N/A	$234.11
Electric standard (EF = 0.88)	N/A	N/A	N/A	$598.65
Electric high efficiency (EF = 0.93)	N/A	N/A	N/A	$566.47
Water Pump	460	43	20	$28.80
Water Softener	4	730	3	$4.32
***CALCULATED AT 12¢ PER KWH**				

***Uses less than one kWh/month; costs less than 12 cents per month to operate.**

Reducing appliance energy use

GAMING CONSOLES					
EQUIPMENT	TYPICAL WATTAGE (OFF)	TYPICAL WATTAGE (IDLE)	TYPICAL WATTAGE (ACTIVE)	ESTIMATED YEARLY COST (TURNED OFF)	ESTIMATED YEARLY COST (LEFT ON)
Nintendo Wii (2006)	1.9	10.5	16.4	$3.00	$10.00
Microsoft Xbox 360 (2007)	3.1	117.5	118.8	$11.00	$103.00
Sony Playstation 3 (2007)	1.1	152.9	150.1	$12.00	$134.00
*CALCULATED AT 12¢ PER KWH					

*Uses less than one kWh/month; costs less than 12 cents per month to operate.

Video Game Consoles

Video game consoles consume an estimated 16 billion kilowatt-hours per year, according to a study released by the Natural Resources Defense Council. That's about equal to the annual electricity use of the city of San Diego. More than 40 percent of all homes in the United States contain at least one video game console.

Sony PlayStation 3 consumes the most energy. For the latest model, consumers will pay about $12 a year if they turn the console off when not in use, compared to about $134 if they leave it on continuously. Microsoft's Xbox 360 costs about $11 to operate annually, but leaving it on all the time will cost about $103. Nintendo's Wii uses significantly less power than the others. It costs about $3 a year if turned off after use, compared to about $10 if left on.

What you can do to save energy and money:

- Turn consoles off when not in use. Leaving consoles on consumes nearly 10 times more annual energy than if they're turned off.
- Enable automatic power-saving features, which shut consoles down if left idle for a certain length of time.
- Limit movie watching on game consoles, as these devices consume more energy than stand-alone DVD and Blu-ray players.
- To learn more about setting up power-saving features, visit www.nrdc.org/energy/consoles/contents.asp

USING A WATT METER TO MEASURE APPLIANCE ENERGY USE

A watt meter is an electronic instrument that can help you determine exactly how much energy your appliances are using. Plug the meter into the appliance and you can measure how much electricity your appliances are using and what they are costing you. The meter will display wattage, cumulative kilowatt hours, and cumulative cost. In many Wisconsin communities, you can borrow a watt meter from your public library.

The amount of electricity used is measured as a kilowatt-hour, which is equal to one kilowatt (or 1,000 watts) of electricity used steadily for one hour. For example, ten 100-watt light bulbs, left on for one hour, would use one kilowatt-hour (or 1,000 watt hours) of electricity.

TAKE ACTION TODAY. SEE RESULTS TOMORROW.

Reduce energy costs and improve the comfort, safety, and durability of your home. Call Focus on Energy at **800.762.7077** or visit **focusonenergy.com**.

ENERGY STAR Appliances: This site provides information on energy-efficient appliances that meet ENERGY STAR standards.
energystar.gov

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