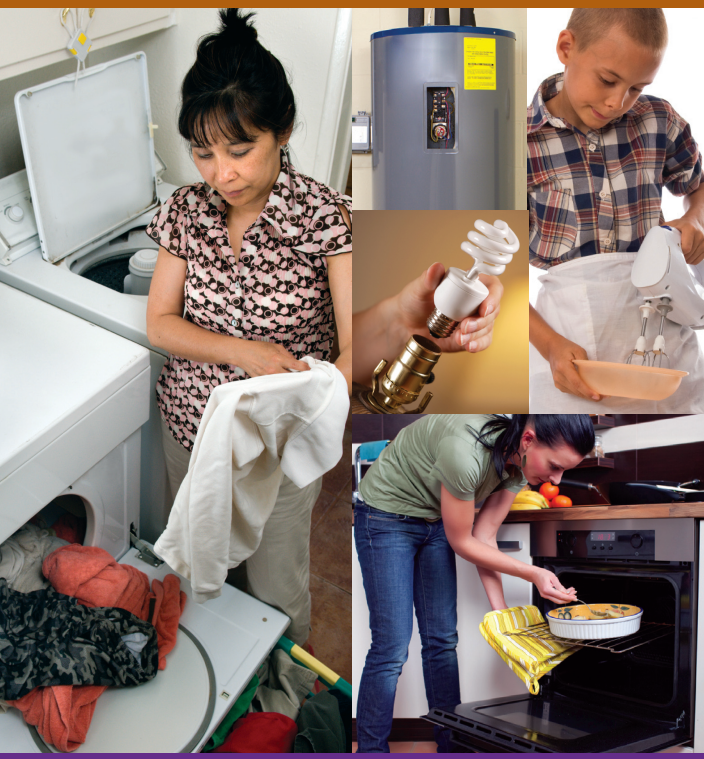
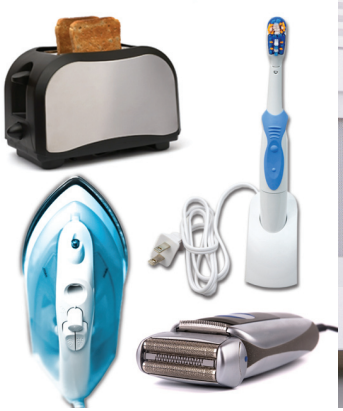
Seattle City Light

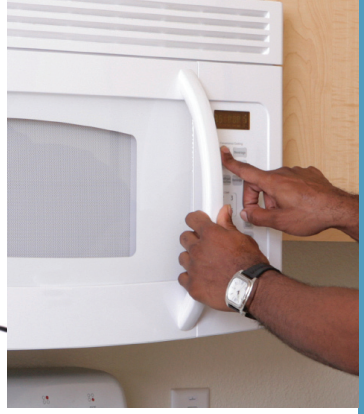
Your Electric Appliances



Typical Energy Costs For Your Home Appliances

www.seattle.gov/light/conserve





Introduction

We get lots of questions about how much energy different electrical appliances use. These questions normally come from people who are trying to reduce their consumption. Usually the two largest energy users in a home are space heating (40-60% of the total) and water heating (about 20%). If you use electricity for either of these two items look first to them for improved efficiency or reduced use.

Electrical appliances fall into three major categories:

1. Appliances that demand a constant amount of power when we turn them on and use no electricity when they're turned off (blenders, hair dryers, fans, etc.)
2. Appliances that demand a constant amount of power when we turn them on and demand small amounts of power when they're in stand-by mode (TV, VCR, answering machines, stereo).
3. Appliances whose power demand varies during the time they are in use (refrigerators, water heaters, clothes washers and hot tubs).

The table inside shows typical power demand, hours of use and costs for appliances as described in Category 1 and 2 above. Most of these appliances cost very little money to operate because we use them for short periods of time, they demand very little power, or both. For Category 3 appliances, it shows the typical wattage and cost on a bimonthly bill. Wattages and hours of use may vary, so use the dollar costs as a guide rather than precise predictions.

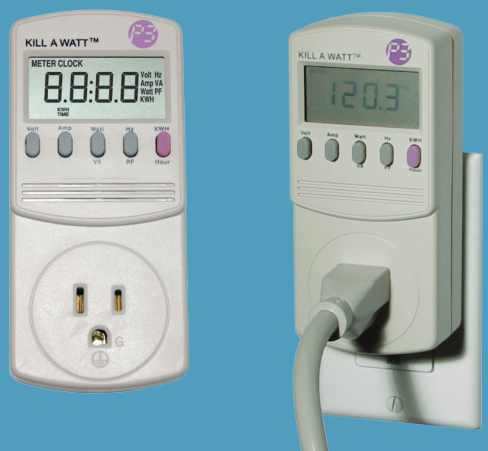
In-Home Energy Monitors

Even the most energy-conscious consumers can only go so far in reducing electricity use if they don't have information on what's using electricity and when. There are now several devices on the market, known as In-Home Energy Monitors, which can provide real-time information on your home's electricity use – essentially a dashboard for your home.

Many studies have shown that these devices can be very effective at helping people better control their electricity bills by providing nearly instant feedback on the cost, both in kilowatts and dollars, of their current power use. While the device itself doesn't save any energy, the information it provides can encourage efficient behaviors and also show which appliances in your home are most expensive to operate.

There are three basic types of devices available. The easiest to use is one that measures one appliance at a time. For each appliance plugged in, the monitor tells you how much energy over time the appliance uses. You can plug in any 120V appliance, whether it's one that goes on and off (refrigerator), or one that draw a small amount of power even when off (chargers, stereos, LED clocks).

The second type has a sending unit that attaches to your electric meter and sends information via radio signal to a display inside your home. This device can be installed by the homeowner. The third type has a sending unit inside your breaker box which then communicates to a display inside your home. This type requires an electrical permit and City recommends having it installed by a professional.



Energy Use




Kitchen

Electric Appliances	Wattage	Hours Used/Day	$/Bill*
Blender	400	0.1	$ 0.22
Coffee Maker	900	0.25	$ 1.25
Crock Pot	400	1.16	$ 2.58
Dishwasher	1,200	1	$ 6.67
Kettle	1,500	0.25	$ 2.09
Microwave	1,450	0.3	$ 2.42
Oven	3,750	1	$ 20.85
Oven Broiler	3,000	0.25	$ 4.17
Range Top - Large Burner	1,250	2	$ 13.90
Refrigerator (pre-1993) 19 cu. ft.	509	N/A	$ 22.41
Refrigerator (Energy Star) 19 cu. ft.	331	N/A	$ 14.58
Toaster	1,000	0.1	$ 0.56

Utility Room

Electric Appliances	Wattage	Hours Used/Day	$/Bill*
Clothes Dryer	5,000	1	$ 7.47
Clothes Washer	500	1	$ 1.22
Dehumidifier	750	12	$ 50.04
Electric Water Heater	4,500	N/A	$ 31.27
Iron	1,090	0.15	$ 0.91
Sump Pump	500	0.67	$ 1.86
Vacuum Cleaner	650	0.15	$ 0.54

Bathroom

Electric Appliances	Wattage	Hours Used/Day	$/Bill*
Curling Iron	50	0.16	$ 0.04
Hair Dryer	1,000	0.25	$ 1.39

Lighting

	Wattage	Hours Used/Day	$/Bill*
Compact Fluorescent Light Bulb (CFL)	15	4	$ 0.33
CFL	23	4	$ 0.51
Fluorescent Shop Light 4 ft. (2 tubes)	80	4	$ 1.78
Incandescent Light Bulb	60	4	$ 1.33
Incandescent Light Bulb	100	4	$ 2.22

Heating and Cooling

Electric Appliances	Wattage	Hours Used/Day	$/Bill*
Baseboard Heater - 8 ft.	2,000	4	$ 44.48
Ceiling Fan	125	4	$ 2.78
Furnace	20,000	4	$444.81
Portable Space Heater	1,500	4	$ 33.36
Room Air Conditioner	4,000	2	$ 44.48
Wall Heater	1,500	4	$ 33.36

Home Electronics

Electric Appliances	Wattage	Hours Used/Day	$/Bill*
Answering Machine	4	0.25	$ 0.01
Cable Box	11	24	$ 0.24
Computer (Monitor and Printer)	300	4	$ 6.67
Computer (Monitor and Printer)	300	24	$ 40.03
Stereo	50	4	$ 1.11
TV - LCD 40 inch - 49 inch	150	4	$ 3.34
TV - LCD over 50 inches	215	4	$ 4.78
TV - Tube 25 inch - 27 inch	90	4	$ 2.00
TV - Tube 30 inch - 36 inch	115	4	$ 2.56
VCR/DVD	30	4	$ 0.67

Miscellaneous

Electric Appliances	Wattage	Hours Used/Day	$/Bill*
Clock	3	24	$ 0.40
Hot Tub (pre - 1990)	2,000	4	$ 44.48
Hot Tub (post - 1990)	1,500	4	$ 33.36
O_2 Concentrator	350	24	$ 46.07
Pond Pump (1/4 hp)	186	24	$ 24.82
Radio	8	4	$ 0.18
Sewing Machine	200	0.143	$ 0.16
Waterbed Heater	300	8	$ 13.34

*The approximate cost for a 2-month City Light electric bill.

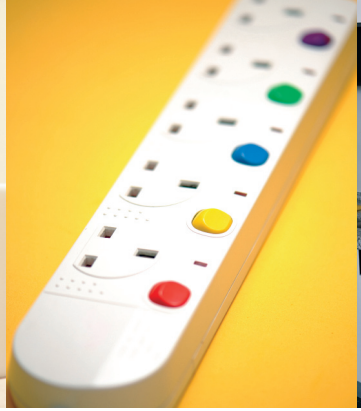
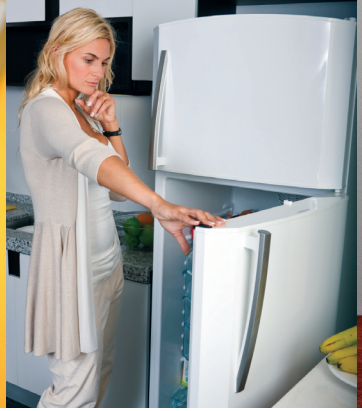
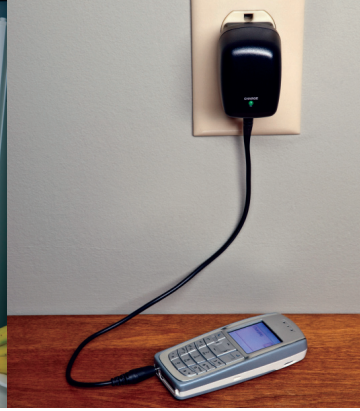
Assumptions

Rate: $0.0914 or 9.14¢

Weeks in a month: 4.35

Cost Formula: Watts ÷ 1,000 x .0914 x #Hours Used/Day x 60 = Bimonthly Cost

For information on rates, visit: **www.seattle.gov/light/acccounts/rates**

Stand-By Power

Most computer peripherals such as printers, scanners and monitors use power even when they are switched off. This “stand-by power” could be costing you over $100 per year on your electric bill. You can reduce or eliminate stand-by power by using an advanced power strip. These devices stop the flow of power to your peripheral devices when the main device (computer) is switched off.

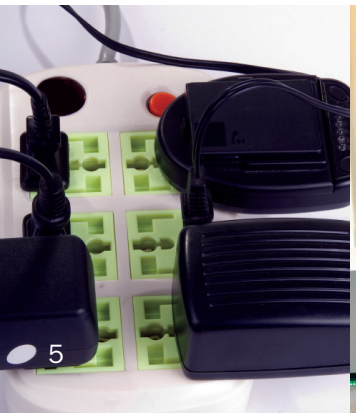
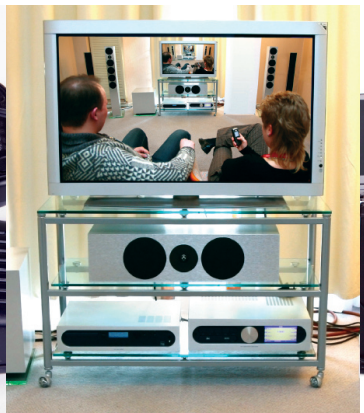
Likewise, entertainment centers usually have a number of devices that constantly suck electricity every hour of the day. An advanced power strip could save a significant amount of electricity if used to control amplifiers, set top boxes and game consoles that don’t need to be on all the time.

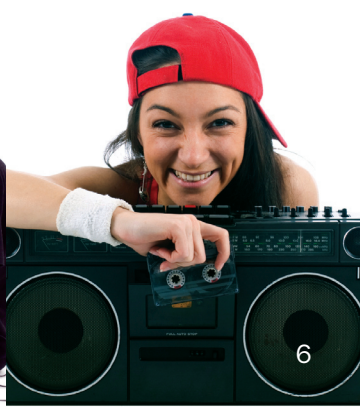
Advanced power strips generally have 3 types of outlets: one master outlet, several controlled outlets and a few “always on” outlets. Anything plugged into a controlled outlet will turn completely off (or on) when the device plugged into the master outlet is switched off or on. For example, if you plug a computer into a master outlet and a printer into a controlled outlet, when you shut off the computer, the printer will turn completely off as well. Devices or appliances plugged into the “always on” outlets are not controlled by the master outlet and will have continuous current like a regular outlet.

Some advanced power strips have occupancy sensors that automatically turn off controlled outlets when no one is in the room after a set period of time.

Advanced power strips save you energy by making it easy to stop current flow to peripherals. It’s a hassle to manually plug and unplug devices and many of us don’t bother. But stand-by power adds up. A printer and monitor alone can draw as much in idle current as a 60-watt light bulb. If on 24/7, that’s about $37 per year!

In fact, most devices that use “transformer” (black box) plugs use power even when off. These include all types of chargers (camera, cell phone, toys), electronic home entertainment systems, cordless tools and phones, and laptops. Where possible, use advanced power strips for computer and home entertainment systems, and manually unplug those transformer plugs when not in use.



Bringing you clean and low-cost electricity

Seattle City Light is dedicated to delivering environmentally responsible, safe, low-cost and reliable power. We are proud that:

- 90% of our energy is generated through clean and renewable hydroelectric sources.
- Seattle has the lowest commercial and residential rates of any comparably sized U.S. city.
- We became the first electric utility in the country to achieve greenhouse-gas neutrality.
- Our 30+ year history of conservation has saved our customers more than $680 million.

Conservation is our energy resource of choice

When our customers conserve, we reduce the need to build new power plants or buy power generated using fossil fuels, which helps us reduce carbon emissions and keep your rates down.

Visit **www.seattle.gov/light/conserve/resident** to find useful publications and conservation tips that can help save you money and save energy. Or talk to our energy experts at **(206) 684-3800**.

Seattle City Light

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Conservation Help Line:
(206) 684-3800

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