

Your Electric Appliances



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 standby 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 in Category 1 and Category 2. 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.

Conservation Resources

Conservation Help Line – (206) 684-3800

Get answers to your questions about conservation and the programs we offer.

Conservation Web Page – www.seattle.gov/light/conserve

Lots of detailed information on a variety of conservation and related topics.

Home Resource Profile - www.seattle.gov/conserve/homeprofile

Fill out a web-based survey and receive back a detailed report on how your household uses energy and water based on your actual utility bills. This free report includes savings recommendations customized to your resource use. A utility account number is necessary.

WashWise – (206) 615-1282/www.savingwater.org

Rebates for purchasing qualifying resource-efficient clothes washers.

ENERGY STAR – www.energystar.gov

Energy efficient appliances can save families at least 10% of the energy compared to non-qualifying models without sacrificing features, style or comfort. Look for the ENERGY STAR label on appliances in 38 different product categories.

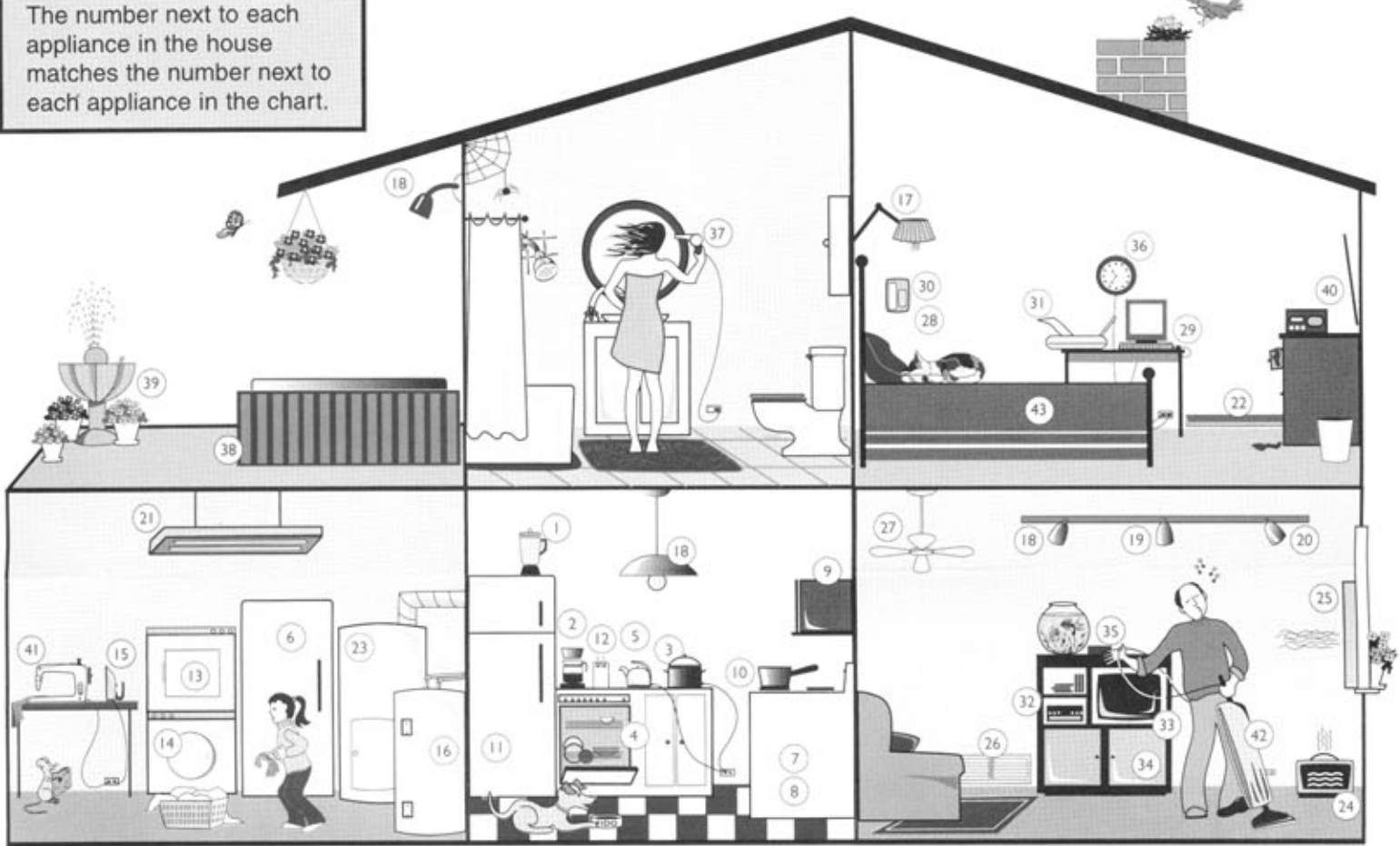
Free Book

For one of the most comprehensive guides to saving energy at home, call us and ask for the ***Consumer Guide to Home Energy Savings—7th Edition*** published by the American Council for an Energy-Efficient Economy (ACEEE).

Visit www.aceee.org for up-to-date lists of the most energy-efficient appliances.



The number next to each appliance in the house matches the number next to each appliance in the chart.



	Electric Appliances	Wattage	Hours used/day	Approx. Cost/day*	Cost/bimonthly bill*
Kitchen	1 Blender	400	0.1	>1c	\$.20
	2 Coffee maker	900	0.25	2c	\$ 1.16
	3 Crock pot	150	8 (1x/wk)	10c	\$.82
	4 Dishwasher - standard	1,500	1 load/day	13c	\$ 7.68
	4 Dishwasher - Energy Star	1,500	1 load/day	8c	\$ 4.80
	5 Kettle	1,500	0.25	3c	\$ 1.92
	6 Freezer, 15 cu.ft. upright man.defrost (pre-1993)	750		36c	\$21.62
	6 Freezer, 15 cu.ft. upright man.defrost (post-1993)	750		13c	\$ 7.58
	7 Oven	3,750	1	32c	\$19.19
	8 Oven, broiler	3,000	0.25	6c	\$ 3.84
	9 Oven, microwave	1,500	0.4	5c	\$ 3.07
	10 Range top - largest burner	1,250	2	21c	\$12.80
11 Refrigerator, 18 cu. ft., frostfree (pre-2001)	750		34c	\$20.69	
11 Refrigerator, 18 cu. ft., frostfree (post-2001)	750		13.5c	\$ 8.08	
12 Toaster	1,000	0.1	>1c	\$.51	
Laundry	13 Clothes dryer	5,600	4 loads/week	26c	\$15.29
	14 Clothes washer - standard warm wash/cold rinse		4 loads/week	12c	\$ 7.20
	14 Clothes washer - WashWise warm wash/cold rinse		4 loads/week	11c	\$ 6.50
	15 Iron	1000	1 (1x/wk)	9c	\$.73
16	Water heater, 52 gal. - standard	4,500	avg. family of 4	\$1.20	\$72.00
	Water heater, 52 gal. - efficient	4,500	avg. family of 4	\$1.13	\$68.00
Lighting	17 Compact fluorescent bulb	15	4	>1c	\$.31
	18 Compact fluorescent bulb	23	4	>1c	\$.47
	19 Standard incandescent bulb	60	4	2c	\$ 1.23
	20 Standard incandescent bulb	100	4	3c	\$ 2.05
	21 Fluorescent shop light - 4 ft. (2 tubes)	80	4	3c	\$ 1.64
Heating & Cooling	22 Baseboard heater - 8 ft.	2,000	4	68c	\$40.95
	23 Furnace	20,000	4	\$6.82	\$409.44
	24 Portable space heater	1,500	4	51c	\$30.71
	25 Room air conditioner	4,000	2	68c	\$40.94
	26 Wall heater	1,500	4	51c	\$30.71
	27 Ceiling fan	125	4	4c	\$ 2.56
Home Electronics	28 Answering machine	4	0.25	>1c	\$.01
	29 Computer (monitor & printer)	200	4	7c	\$ 4.09
	30 Cordless telephone	3	1.25	>1c	\$.02
	31 Fax/copier	100	0.25	>1c	\$.13
	32 Stereo	250	4	8c	\$ 5.12
	33 Television	80	8	5c	\$ 3.28
	34 VCR	40	2	>1c	\$.41
35 Cable box	11	24	2c	\$ 1.35	
Miscellaneous	36 Clock	3	24	>1c	\$.37
	37 Hair dryer	1,000	0.25	2c	\$ 1.28
	38 Hot tub, 360 gal. (pre-1990)	2,000	24 (no timer)	\$2.04	\$122.83
	38 Hot tub, 360 gal. (post-1990)	1,500	4 (on a timer)	51c	\$30.71
	39 Pond pump (1/4 hp)	186	24	38c	\$22.80
	40 Radio	8	4	>1c	\$.16
	41 Sewing machine	200	1 (1x/wk)	2c	\$.14
	42 Vacuum cleaner	600	0.5	3c	\$ 1.54
43 Waterbed heater	300	8	20c	\$12.28	

* calculated using the 2nd block rate of 8.53c per kWh and rounded to nearest cent.

Residential Rates - as of 4/1/04	c/kWh
1st Block = 1st 10 kWh/day avg. in summer* 1st 16 kWh/day avg. in winter*	4.20
2nd Block = 11-100 kWh/day avg. in summer* 17-167 kWh/day avg. in winter*	8.53
3rd Block = over 100 kWh/day avg. in summer* over 167 kWh/day avg. in winter*	9.95

*Summer months are April - Sept. Winter months Oct. - March.

- To determine the cost to use a specific appliance, use this formula:
watts ÷ 1000 x \$.0853 x #hrs used/day x 60 days = bimonthly cost.
- To calculate watts if an appliance lists only amps and volts:
amps x volts = watts (Normal voltage for small appliances = 120 v.)
- To calculate watts if an appliance lists horsepower(hp):
1 hp = 746 watts