

Understanding

Electricity Usage and Costs



The amount of electricity you use each month is shown on your electric bill in kilowatt-hours (kWh). To calculate your average cost per kWh, divide the dollar amount of your electric bill by the number of kWhs you used.

The costs shown on this sample fact sheet are based on an average total price of 10.10 cents per kWh. Your own cost could be higher or lower depending on your usage patterns, your actual electric rate, the wattage of your appliances and the amount of time you use them.

Using the formula below, you can calculate any appliance's kWh usage and cost (in cents per kWh);

$$\frac{\text{watts} \times \text{hours in use}}{1,000} \times 10.10 \text{ cents} = \text{Average cost (0.10100)}$$

Many homes have more than one of any given appliance—for example, lamps, televisions, light bulbs or clocks. Be sure to multiply your costs by the number of appliances you use to get a more accurate estimate of your energy consumption.



Electric Appliances	Watts	Avg. Hrs. Used/Mo.	Avg. kWh Used/Mo.	Average Cost/Mo.
Kitchen				
BBQ grill	1350	6	8.1	\$0.88
Bread maker	210	2	0.42	\$0.04
Broiler	390	3	1.2	\$0.12
Coffee maker	1,500	10	15	\$1.52
Deep fat fryer	1,450	3	4.4	\$0.44
Dishwasher-air dry	300	13.75	4.1	\$0.41
Dishwasher-heat dry	1,200	13.75	16.5	\$1.67
Electric skillet	1,200	3	3.6	\$0.36
Hot plate	660	4	2.4	\$0.24
Freezer	450	215	96.75	\$9.77
Microwave oven	800	10	8	\$0.81
Oven	3,500	6	21	\$2.12
Range top-large burner	2,400	20	48	\$4.85
Range top-small burner	1,300	20	26	\$2.63
Range-cleaning cycle	4,500	3	13.5	\$1.36
Refrigerator/freezer-Energy Star	800	117	93.6	\$9.45
Refrigerator/freezer-pre 1992	600	215	129	\$13.03
Roaster	1,330	6	8	\$0.81
Slow cooker	200	24	4.8	\$0.49
Toaster	1,150	3	3.5	\$0.35
Toaster oven	1,500	2	3	\$0.30
Waste disposer	450	7	3.2	\$0.32
Laundry				
Clothes dryer	5,500	14.75	81.12	\$8.19
Clothes washer (5 loads per week including water heater cost)				
Hot/Warm setting	5,000	20	100	\$10.10
Warm/Warm setting	5,000	20	70	\$7.07
Warm/Cold setting	5,000	20	40	\$4.04
Cold/Cold setting	500	20	10	\$1.01
Iron	1,000	5	5	\$0.51

Electric Appliances	Watts	Avg. Hrs. Used/Mo.	Avg. kWh Used/Mo.	Average Cost/Mo.
Lighting				
Compact fluorescent bulb	25	30	0.8	\$0.08
Energy efficient light bulb (equivalent to 60w incandescent)	16	30	0.48	\$0.05
Flood light (exterior)	150	240	36	\$3.64
Standard incandescent bulb	100	30	3	\$0.30
Heating & Cooling				
Add on heat pump	5,000	150	750	\$75.75
Air conditioner (window unit, 8 hours/day)				
6,000 btu/hr	800	240	192	\$19.39
10,000 btu/hr	1,350	240	324	\$32.72
12,000 btu/hr	1,600	240	384	\$38.78
Air conditioner (central)	6,000	90	540	\$54.54
Air purifier	50	275	13.75	\$1.39
Attic fan	400	360	144	\$14.54
Baseboard heater-8 ft.	2,000	150	300	\$30.30
Ceiling fan	65	360	23.4	\$2.36
Dehumidifier	400	360	144	\$14.54
Electric blanket	10	240	24	\$2.42
Fireplace (electric) heater inserts/blower	1,500	90	135	\$13.64
Furnace (electric)	15,000	150	2,250	\$227.25
Furnace fan	500	Continuous	360	\$36.36
Humidifier	170	Continuous	122.4	\$12.36
Humidifier (on furnace)	25	Continuous	18	\$1.82
Pellet stove (wood/corn)	100	Continuous	72	\$7.27
Portable space heater	1,500	77.75	116.62	\$11.78
Water bed heater	400	300	120	\$12.12
Water heater, 52 gallon	4,500	75	337.5	\$34.09
Window fan	180	360	64.8	\$6.55
Health & Beauty				
Blow dryer	1,500	2.5	3.8	\$0.38
Hair curler	400	7.5	3	\$0.30
Heating pad	65	30	2	\$0.20
Shaver	15	2.5	0.04	\$0.01
Sun lamp	280	15	4	\$0.40
Tanning bed	2,600	8.5	22	\$2.22
Home Electronics				
Cable/Satellite box	11	Continuous	7.9	\$0.80
computer monitor (17" CRT)	80	60	4.8	\$0.49
Computer monitor (20" LCD)	50	60	3	\$0.30
Computer printer	180	20	3.6	\$0.36
Computer laptop	15	60	0.9	\$0.09
Computer desktop	65	60	3.9	\$0.39
Cordless telephone and answering machine	6	Continuous	4.3	\$0.43
DVD/VCR player	25	24	0.6	\$0.06
stereo component	200	120	24	\$2.42
Television (8 hours/day)				
19" Solid state	200	240	48	\$4.85
25" Solid state	250	240	60	\$6.06
27" w/picture tube	200	240	48	\$4.85
42" Plasma Integrated HDTV	450	240	108	\$10.91
60" HDTV monitor plasma display	650	240	156	\$15.76
Gaming Systems				
PS3	190	30	5.7	\$0.58
Wii	18	30	0.54	\$0.06
X Box 360	180	30	5.4	\$0.55

Electric Appliances

	Watts	Avg. Hrs. Used/Mo.	Avg. kWh Used/Mo.	Average Cost/Mo.
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Miscellaneous

Clock	2	Continuous	1.4	\$0.14
Cordless drill	240	720	165	\$16.67
Digital picture frame	12	Continuous	8.64	\$0.87
Garage door opener	800	12	9.6	\$0.97
Hot tub/spa pump	1,000	183	183	\$18.48
Hot tub/spa heater	5,000	183	915	\$92.42
Oxygen machine	400	360	144	\$14.54
Septic pump	1,000	40	40	\$4.04
Sump pump	500	20	10	\$1.01
Swimming pool filter pump	1,400	Continuous	1,008	\$101.81
Swimming pool heater	5,800	360	2,088	\$210.89
Vacuum cleaner	740	2	1.5	\$0.15
Well pump	1,100	14	15	\$1.52

Farm

Water pump				
1/3 hp	333	60	20	\$2.02
1.5 hp	1500	60	90	\$9.09
Engine block heater (8 hrs/day)				
500 - watt	500	240	120	\$12.12
1000 - watt	1000	240	240	\$24.24
1500 - watt	1500	240	360	\$36.36
2500 - watt	2500	240	600	\$60.60
6' Heat tape (8 watts/ft)	48	720	34.6	\$3.50
Tank heater	varies on location and number of livestock		40-300	\$4.04-\$30.30
Electric fence	varies		0-7	\$0-\$0.71
Grain dryer (no heater)	varies with weather & moisture removed		1/bu	TBD
Grain dryer (with electric heater)	varies with weather & moisture removed		2/bu	TBD
250 Watt heat lamp	250	720	180	\$18.18

Important Note: These estimates are based on average size and use of each appliance. Operating costs may vary considerably due to the type, size, frequency and duration of use, as well as differences in family living habits. While most appliances last a long time, older appliances often use far more energy than new, energy-efficient models. There is also a facilities charge of \$30 per meter.