

The Cost of Operating Appliances

How much does it cost to operate all of your electrical appliances?

The answer depends on many factors, including: the number and kinds of appliances you use; the way you use them; how long you use them; the number of people in your household; and, the price you pay for electricity.

There are also seasonal factors. For example, in the summer, you may cook less, use your lighting for shorter periods of time and use air conditioners or fans. In the winter, your heating and cooking costs are probably higher, and your lighting will be used for more hours during the day.

The addition of new appliances—or new family members—can also increase your electricity use.

The appliances that cost the most to operate are the ones that require the greatest amount of electricity to generate heat, such as your furnace, water heater or range, or to cool, such as your air conditioning system. The cost of operating an electrical appliance is calculated using these three factors:

1. The number of watts the appliance uses.
2. The number of hours the appliance is used.
3. The cost you pay for one kilowatt-hour (kWh) of electricity. (A kilowatt-hour is 1,000 watts of electricity used for one hour.)

To calculate the cost of operating an appliance, multiply the wattage of the appliance by the approximate number of hours you operate the appliance (the wattage of an appliance is usually listed on the appliance). Next, divide by 1,000 – this will give you the number of kWhs the appliance uses. Finally, multiply the kWh use by your cost per kWh as shown on your electric bill.

Example: A television set is rated at 300 watts and operated for seven hours a day.

1. Multiply 300 watts by seven hours (300 x 7 = 2,100 watt-hours)
2. Divide by 1,000 (2,100 ÷ 1,000 = 2.1 kWh)
3. Multiply the kilowatt-hours by the price of electricity.
Let's use 7 cents per kWh: (2.1 kWh x 7 cents = 14.7 cents)

The TV set costs approximately 15 cents a day to operate.

Typical Operating Costs of Various Appliances

Average Use	Typical Wattage	Estimated Usage (kWhs/mo.)	Average Use (\$/mo.)	Above Avg. Use (\$/mo.)
Air Conditioner (5,000 BTUH room unit)	900	130-150	\$9.10	\$10.50
Air Conditioner (12,000 BTUH room unit)	1,500	250-300	\$17.50	\$21.00
Aquarium (air pump & heater)	150	80-100	\$5.60	\$7.00
Attic Fan	300-400	30-40	\$2.10	\$2.80
Blanket (electric)	170	12-24	\$0.84	\$1.68
Blow Dryer/Curling Iron	400-1,250	2-4	\$0.14	\$0.28
Ceiling Fan	80-100	10-15	\$0.70	\$1.05
Clocks (3)	4	3-4	\$0.21	\$0.28
Clothes Dryer (24-32 loads)	4,300-5,600	80-100	\$5.60	\$7.00
Clothes Washer (24-32 loads)	500-600	6-8	\$0.42	\$0.56
Coffee Maker	700-900	8-9	\$0.56	\$0.63
Computer (desktop)	700-800	40-55	\$2.80	\$3.85
Dehumidifier (continuous)	300-410	200-300	\$14.00	\$21.00
Dishwasher	1,200	30-35	\$2.10	\$2.45
Dusk/Dawn Light (175 watt)	175	36-63	\$2.52	\$4.41
Freezer	350-450	42-70	\$2.94	\$4.90
Furnace Fan/Boiler Pump	300-600	65-85	\$4.55	\$5.95
Humidifier	80	20-25	\$1.40	\$1.75
Lighting	1,600-4,000	75-150	\$5.25	\$10.50
Microwave	650-1,100	13-16	\$0.91	\$1.12
Oxygen Concentrator	250	180-200	\$12.60	\$14.00
Pool Pump	750-1,000	540-720	\$37.80	\$50.40
Portable Room Heater (1 hr/day)	900-1,500	45-55	\$3.15	\$3.85
Radio, Stereo, VCR	40-60	4-6	\$0.28	\$0.42
Range	12,000	75-100	\$5.25	\$7.00
Refrigerator (< 10 yrs. old)	475-550	45-55	\$3.15	\$3.85
Refrigerator (> 10 yrs. old)	475-550	65-75	\$4.55	\$5.25
Hot Tub (indoors)	750-3,000	150-200	\$10.50	\$14.00
Hot Tub (outdoors)	750-3,000	250-500	\$17.50	\$35.00
Television	300	30-40	\$2.10	\$2.80
Toaster/Toaster Oven	950-1,500	3-4	\$0.21	\$0.28
Vacuum Cleaner	700-1,400	3-4	\$0.21	\$0.28
Vaporizer	480	6-10	\$0.42	\$0.70
Water Bed Heater	300	70-80	\$4.90	\$5.60
Well Pump	950-1,400	40-60	\$2.80	\$4.20
Water Heater (30 gal./1 person)	3,500	350-400	\$24.50	\$28.00
Water Heater (40-50 gal./1 person)	4,500	375-425	\$26.25	\$29.75
Water Heater (each add. person)		75-125	\$5.25	\$8.75

Calculations are based on a rate of 7 cents per kilowatt-hour. Your actual rate may be different depending on where you live and the company that supplies your electricity.

These figures are averages and may not exactly reflect your household's habits or the energy efficiency and size of your home; however, they will help you estimate how much electricity various appliances use and where your energy dollars go each month.