

The Kilowatt-Hour (kWh).

When we turn our appliances on, we use electrical energy. The power companies charge us according to the amount of electrical energy we use. Electrical energy is usually measured in kilowatt-hours. If an appliance uses 1000 Watts (that is 1 kilowatt) of power for 1 hour, it has used 1 kilowatt-hour of energy. Remember, 1000 W = 1 kW (just like 1000 grams = 1 kilogram)

Electricity prices vary widely around the world, but for the purposes of this task, we will assume that it costs 28 cents per kilowatt-hour.

Using the information above, fill in the table.

Appliance	Power Usage (Watts)	Power Usage (kilowatts)	Duration of use (hours)	Energy used (kilowatt hours)	Cost (cents) per kilowatt hour	Total cost to run the appliance (for the given amount of time in column 4) (cents)	Total Cost to run the appliance <u>per hour.</u>
20 W light globe	20 W	0.02	5	0.1	28	2.8 cents	0.56 cents
10 W downlight	10 W		5		28		
TV	200 W		3		28		
Bar Radiator	1100 W		4		28		
Microwave	800 W		1		28		
Washing Machine (average over cycle)	520 W		2		28		
Toaster	950 W		12 min = 0.2 hours		28		
Hairdryer	1600 W		5 minutes =		28		

Choose two appliances from your home. Many appliances write their power usage somewhere on the appliance. Find the power usage and fill in the table.

Appliance 1: _____

Power Usage (Watts)	Power Usage (kilowatts)	Cost per kilowatt hour	Total Cost to run the appliance <u>per hour.</u>

Appliance 2: _____

Power Usage (Watts)	Power Usage (kilowatts)	Cost per kilowatt hour	Total Cost to run the appliance <u>per hour.</u>