

How Much Electricity Do You Use?

How often have you heard adults complain about the increasing cost of electricity? This is despite the fact that Australia has the second cheapest electricity in the world.

The reason for the growing cost of electricity to our homes is based on an important fact. Australians are using more energy now than we ever have before. Why is this?

1. As more people populate the country, energy needs rise.
2. There are more and more electricity using appliances and technologies available every day. Our everyday lives are filled with electrical appliances that our grandparents had never heard of.

This activity will help you find out why our electricity bills are so high. The figures used in this activity are not real and are not representative of any one electricity retailer's prices.

Electricity cost figures in your area will be different. Your local electricity retailer should be able to give you figures that show the average cost per household in your community.

What you need to do:

If you did the electricity survey as described in the meter reading activity, you will have noticed that the electricity bill is directly related to the amount of electricity the home uses.

When doing your survey at home did you find any appliances you think you could live without, such as an electric can opener? To help you with this, talk to some older adults about what they had to use for different tasks when they were children?

Interview an older person and write a report comparing an aspect of energy use "then" vs. "now." (See "How Much Electricity Do We Use?" in the Electrical Energy section).

Do an Energy Home Survey

Do this survey twice: once in the morning before school, and once after dinner in the evening. It will help you determine how much electricity you use.

Electrical Appliances in use	Multiply by	Subtotal	Total per day
Incandescent Lights: Number of lights on =	1 cent per hour		
Fluorescent lights: Number of lights on =	1 cent per 4 hours		
Television: Number of sets on =	4 cents per hour		
Radio: Number of sets on =	1 cent per hour		
Stereo: Number of sets on =	2 cents per hour		
Microwave oven: Number of ovens on =	15 cents per hour		
Computer: Number of computers on =	1 cent per hour		
Vacuum cleaner: Number on =	9 cent per hour		
Air conditioner: Number on =	15 cents per hour		
Portable heater: Number on =	55 cents per hour		
Total for all subtotal usage:			
Total usage in one day:			

Add up all the numbers in the Subtotal column. This subtotal is the total cost for these appliances in one hour.

Some of these appliances will be on for more than one hour, some less. Based on what you know about your household, write the total number of hours and the total cost in one day for these appliances in the Total per day columns above.

Example 1: If two stereos are on for eight hours a day, you multiply
 $2 \text{ (stereos)} \times 2 \text{ cents per hour} \times 8 \text{ hours} = 32 \text{ cents per day.}$

Example 2: If you vacuum for 1/2 hour, multiply by
 $9 \text{ cents per hour} \times .5 \text{ hours} = 4.5 \text{ cents per day.}$

Periodic Appliances

Some items are not used all the time. They create a cost only when they are used.

Periodic Appliances Appliance and loads per month	Multiply by	Total per month
Dishwasher: Loads =	10 cents per load	
Washing machine: Loads =	5 cents per load	
Clothes dryer: Loads =	67 cents per load	
Total usage for one month:		

These answers give you the total cost per month, based on how much your family uses these appliances.

Water heating in your home will vary and be dependent on the size of the unit. Many electricity bills have a separate line item for water heating which will make it easier for you to know how much this costs your family. Refrigerators, freezers and in built home heating or cooling systems will vary in their costs a lot.

Using the information you have collected try to work out how much your home's electricity bill will be each month and then compare it with the bill you actually get.

My estimate: _____ **Actual bill:** _____

Did your estimate come close to the actual cost? If not, why do you think they differ?