

Energy use and management in the home

Activity Sheet

1) How electrical energy is used in my home.

a) List the major appliances in your home (fridge, TV) indicating how many of each you have.

b) Leaving appliances on standby is called **vampire power**.
List all the appliances in your home that are left in standby mode.

How can you reduced vampire power?

c) Record the use of lights in your home in the table below. Date of recording: _____

Number of lights			
ON	on that do not need to be on	OFF	TOTAL
Percentage of lights wasting energy	= $\frac{\text{lights on that do not need to be on}}{\text{Total number of lights}} \times 100 =$		

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Would it make a difference to your power bill if you and other members of your family turned off lights when they were not required? _____. Explain.

2) How electrical energy use can be better managed in my home.

- a) **Write a list of energy saving tips:** Visit the Synergy Save Energy Tips webpage <https://www.synergy.net.au/Your-home/Energy-tips>, read the family tips and watch the available videos.

How to read the Synergy electricity bill

You will need a copy of your Synergy household energy bill.

Your parents either receive the bill in the post or can access it through their account online.

- 1) View the video <https://www.synergy.net.au/Your-home/Help-and-advice/Bills/Understandingmybill>. You will need information from this video to help answer the following questions.
- 2) Using the graph of energy usage on your bill to answer the following questions.
 - a) Redraw the energy usage graph in the space below.

b) We used (more / less / the same amount) of energy this bill compared to the last bill?

c) Explain any differences in energy usage from this bill and your last bill.

d) We used (more / less / the same amount) of energy this bill compared to the same time last year.

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Schools Solar Challenge

e) Explain any differences in energy usage from this bill to the same time last year.

f) What is your average daily usage? _____

g) What is your average daily cost? _____

3) Solar Electricity

a) Do you have solar PV panels? _____

b) Do you have a battery to store unused solar energy? _____

c) If you have solar panels, then you are a renewable energy customer.
Turn to the back of your electricity bill. It will show a usage summary showing the number of units you exported back into the grid system in kilowatt hours (kWh).

How many units (kWh) did you export?

Net Export Peak _____

Net Export Off Peak _____

4) Compare your electricity bill with other households!

How much was your last bill? \$_____.

Use this amount to compare your energy bill (and usage) with other similar Perth households using the calculator <https://www.synergy.net.au/Your-home/Energy-tips/Compare-your-bill#>

How did you fare? Record your results of the comparison in the space below.
