



Your Energy Profile Activity

Activity Explanation

This activity will help you understand how your household uses electricity throughout the day.

Complete this activity to discover if you could save money simply by changing what time of day you use your appliances to maximise the usage of your solar power system.

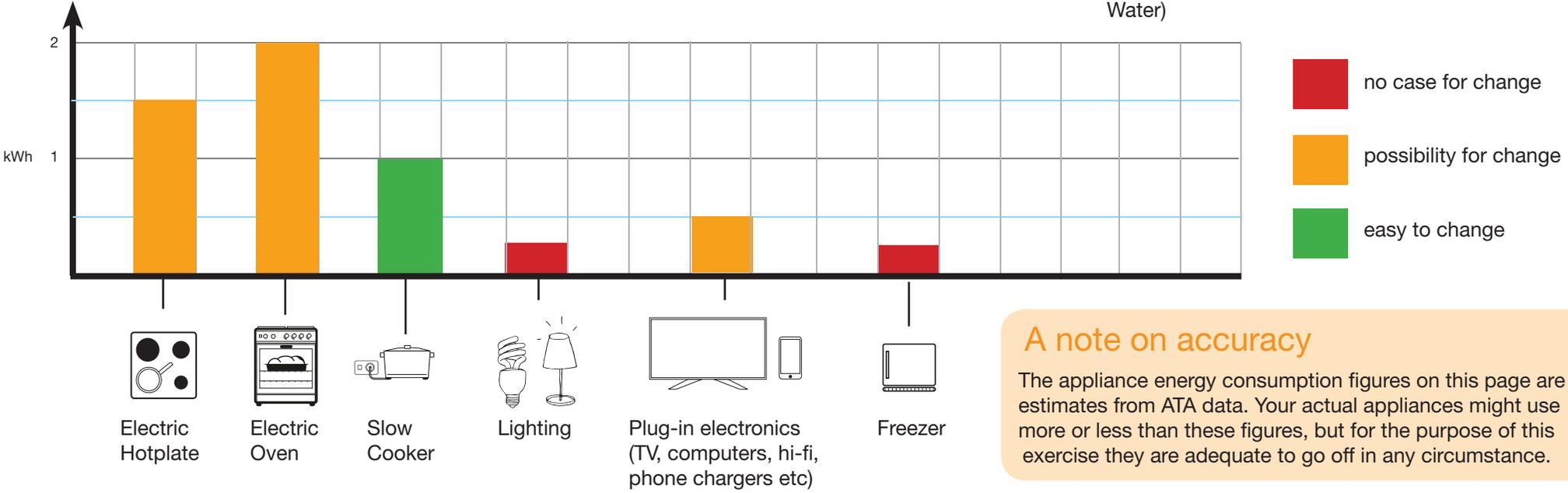
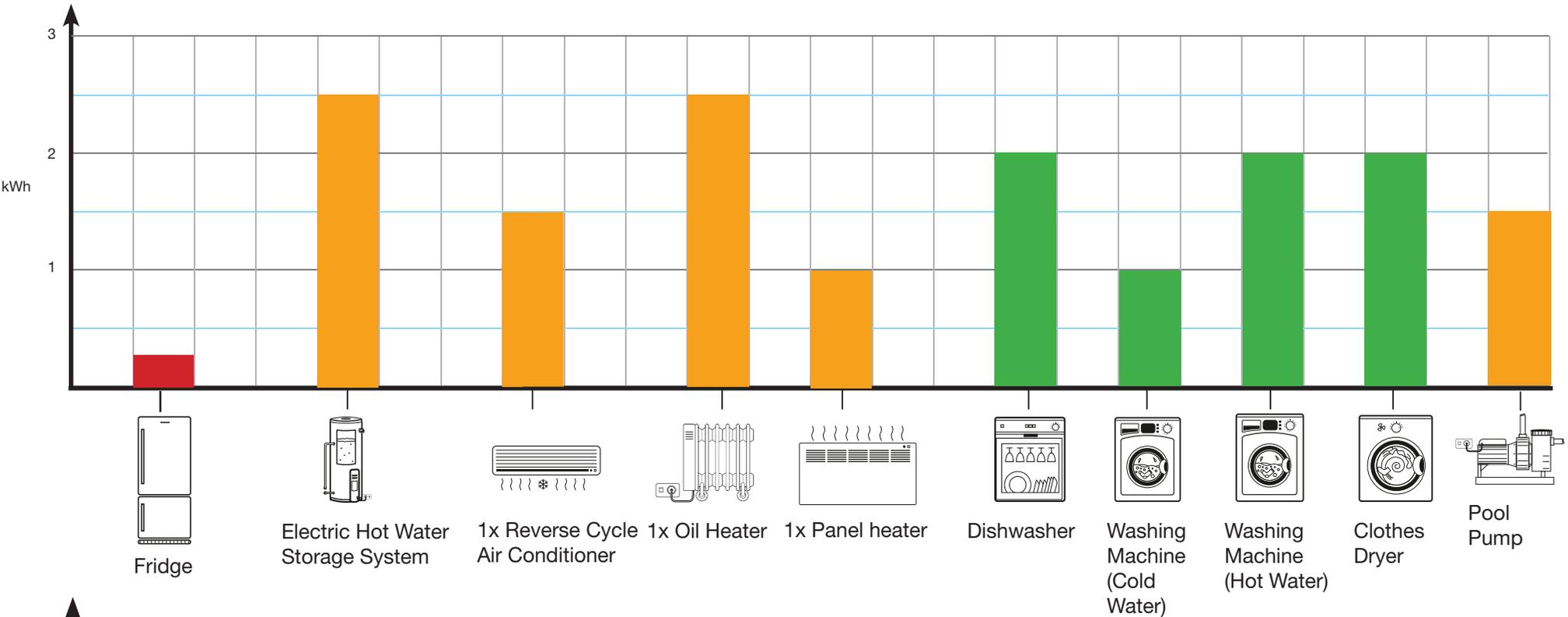
What you'll need

- » Coloured pens
- » The size of your solar power system in kW.

Expected outcomes

- » A greater understanding of your energy profile.
- » Recognition of your ability to change when you could use certain appliances.

Electricity consumption of household appliances per hour



■ no case for change
■ possibility for change
■ easy to change

A note on accuracy
 The appliance energy consumption figures on this page are estimates from ATA data. Your actual appliances might use more or less than these figures, but for the purpose of this exercise they are adequate to go off in any circumstance.

Example Energy Profile

1. How does this work?

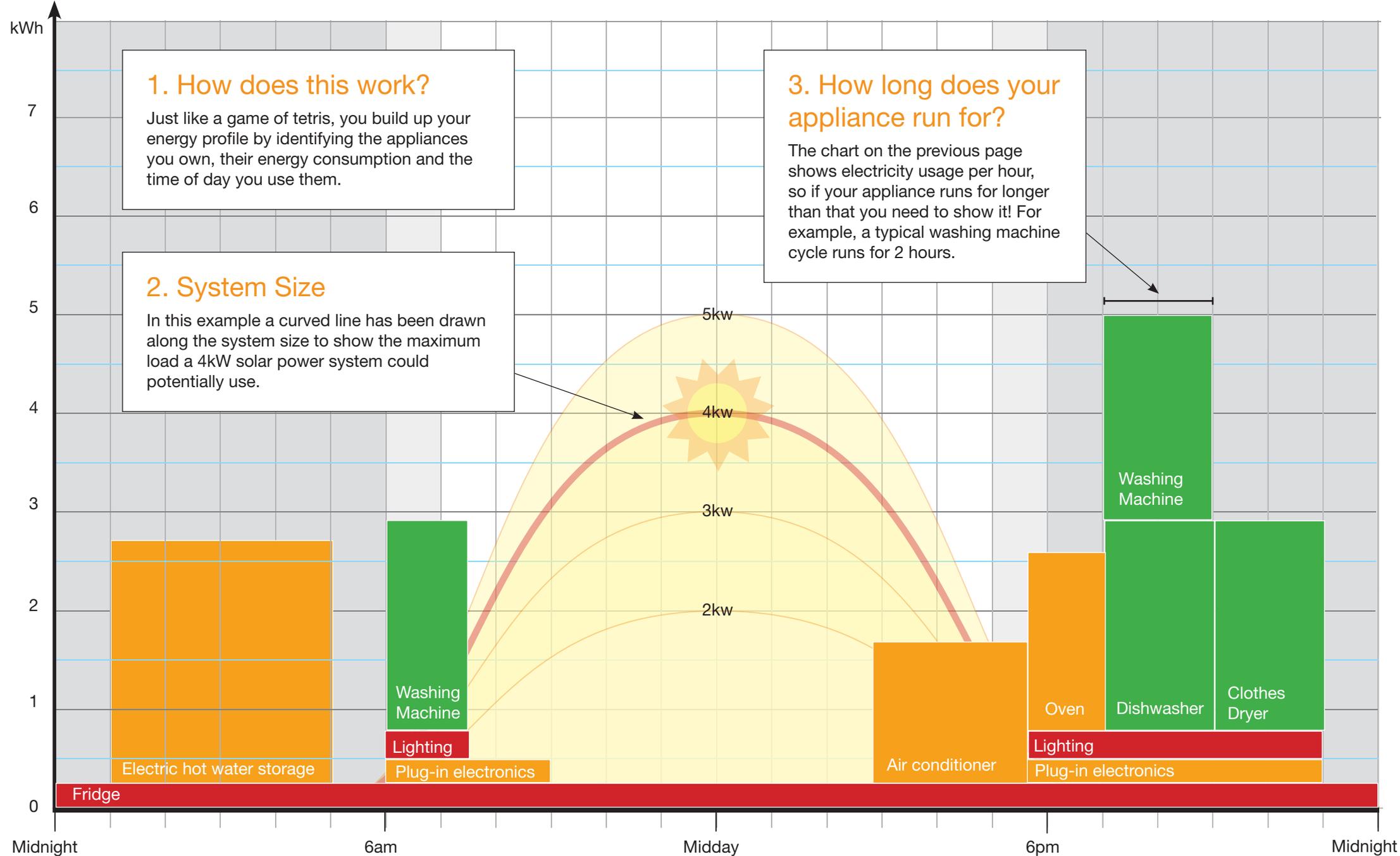
Just like a game of tetris, you build up your energy profile by identifying the appliances you own, their energy consumption and the time of day you use them.

2. System Size

In this example a curved line has been drawn along the system size to show the maximum load a 4kW solar power system could potentially use.

3. How long does your appliance run for?

The chart on the previous page shows electricity usage per hour, so if your appliance runs for longer than that you need to show it! For example, a typical washing machine cycle runs for 2 hours.



Your Energy Profile Worksheet

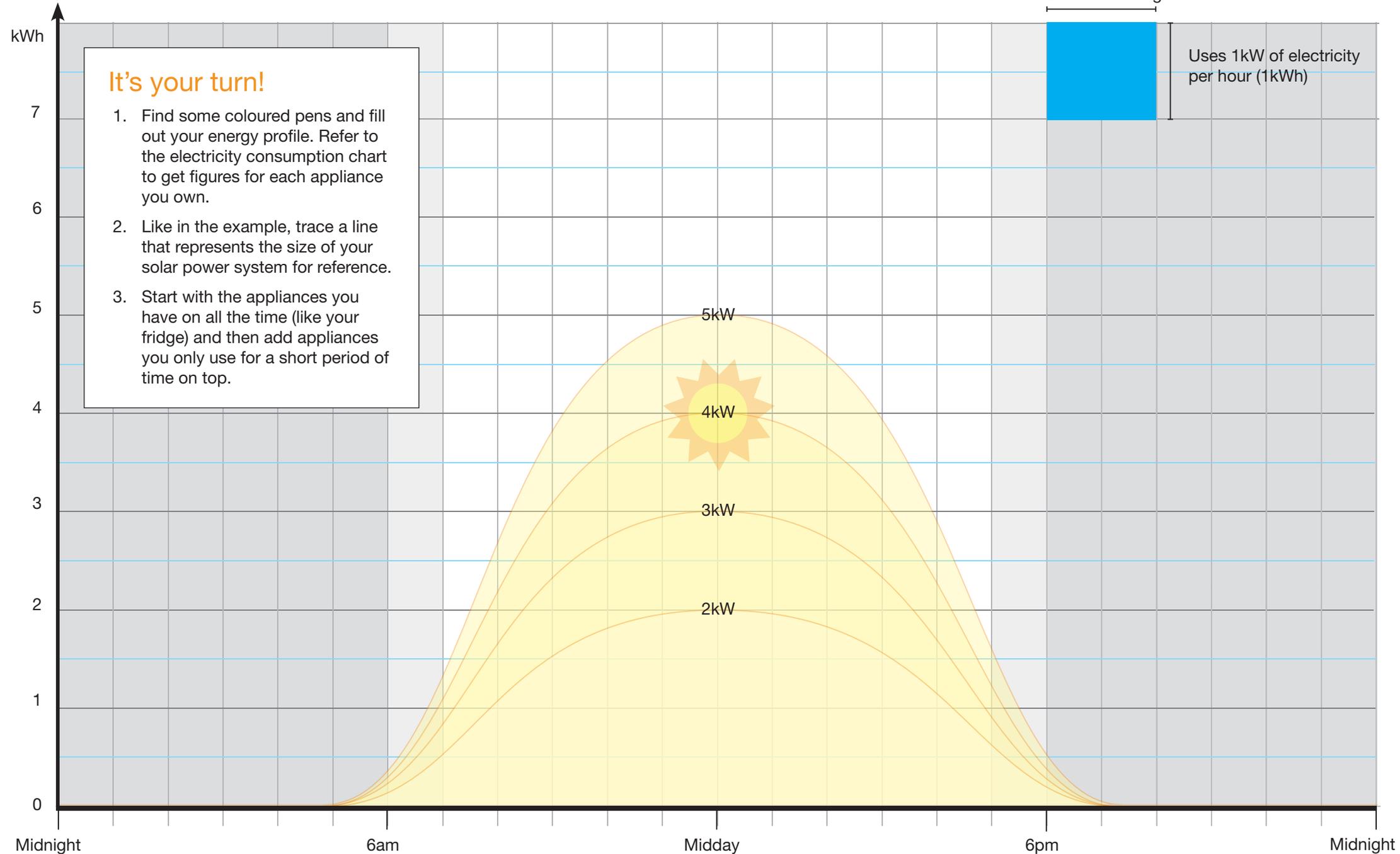
Example Appliance:
Washing Machine (Cold Water)

2 hours of usage

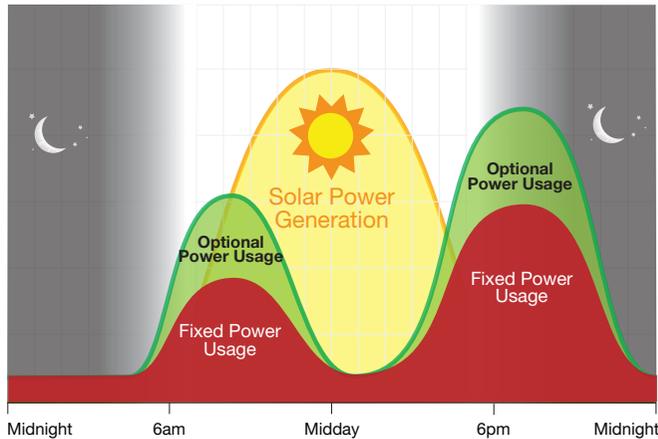
Uses 1kW of electricity
per hour (1kWh)

It's your turn!

1. Find some coloured pens and fill out your energy profile. Refer to the electricity consumption chart to get figures for each appliance you own.
2. Like in the example, trace a line that represents the size of your solar power system for reference.
3. Start with the appliances you have on all the time (like your fridge) and then add appliances you only use for a short period of time on top.



Understanding your energy profile



Typical fixed and optional power profile breakdown

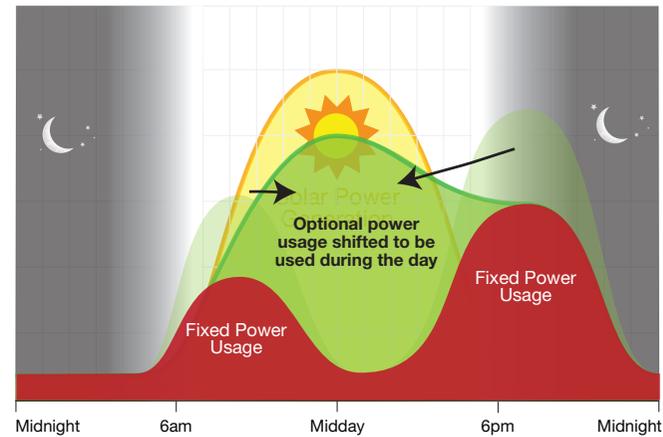
Typical energy profile showing fixed and optional power usage

The following profile is typical of how most households use their energy and how they have opportunity to shift their usage to get the most benefit from their solar power system, using the power as it is being generated.

What sort of household are you?

Depending on the size of your household, and whether or not you are home during the day or not, the ability to change your usage patterns might be too difficult to undertake. If this is the case, but you're committed to try to use more of your solar, you could look into installing timers on appliances, or using their inbuilt delay functions to allow them to turn on during the day.

Ideal energy profile for standard tariff solar



Standard tariff

For when you don't get paid much for sending electricity back to the grid, try using optional power appliances like dishwashers, washing machines and dryers during the day instead of at night. The simple motto is "Use your power when the sun shines".

By doing this you will:

- » Save money by maximising your solar power usage
- » Reduce load on the energy grid
- » Help save the environment by reducing your dependency on grid power.