

Checking Electricity Usage

If you are receiving high electricity bills but don't believe you are actually using much power, you can easily undertake your own energy audit.

You won't need any special tools, just a pen and paper and access to your electricity meter. You may find Fact Sheet 6 useful too – Reading Meters. It will show you how to read the different electricity meters generally found in South Australia. If you have solar panels and an import/export meter, ETSA Utilities has a brochure to explain how to read that type of meter (check their website www.etsautilities.com.au or phone them on 131 261).

Step 1: Confirm your meter number

The first step is to ensure you are being billed for the correct meter(s). You will find your electricity meter number listed on your bill – it is usually somewhere on the back of the bill. Note this number and then check it against the number on the front of the meter. They should match. If not, contact your energy retailer with your correct meter number and have them correctly bill you.

You may have additional meters in your box as well and these should also be listed on your bills. Most commonly in residential situations, you will have a peak meter and, if you have an off-peak controlled load hot water system, underfloor heating or heat bank heating, you may also have a separate off-peak meter. With electronic meters, you may have the peak and off-peak “registers” contained within the one meter.

If you live in a property that has connecting walls or in a unit complex with all meters located together, you will need to check to ensure that only your wiring is connected to the meter and that you are not potentially paying for community lighting or someone else's power.

To ensure the meter listed on your bills is the correct meter for your property, turn off your main switch and check that your meter stops recording power usage - for mechanical meters, this will mean the disc stops spinning (it may take several minutes to completely stop) or for electronic meters, the indicator will stop pulsing and/or usage will stop recording. (This short amount of time with the power off won't affect food in fridges and freezers as they will keep cold for many hours if you keep the doors closed).

If the meter doesn't stop when you have turned the main switch off:

- this may not be your meter! (If your meter is together with others, check to see whether one of the other meters has stopped recording, as that may be your meter); or
- you may have something from an adjoining property connected to your meter and going through your main switch. (Check with adjoining properties to see if any lights or power points have stopped working); or
- the meter may be faulty. (Your energy retailer can arrange a meter test - this is at your cost unless the meter is found to be faulty).

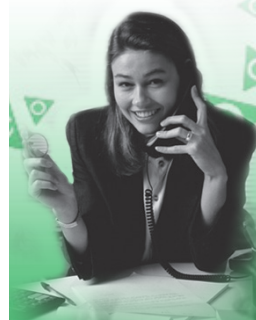
Step 2: Identify what is connected to your meter

The next step is to identify everything that is recording on your peak meter. Turn off all lights and appliances at the power point within your property and check that the peak meter has again stopped recording power usage whilst everything is off.

>> continued



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Step 2: Identify what is connected to your meter *continued*

If the meter is still recording power when you have everything in your property turned off check that you haven't forgotten something – a light on or perhaps an appliance running in a shed or out-building. If you are renting, perhaps the landlord has something plugged in that you are not aware of. Alternatively, you may have some wiring from an adjoining property or common property connected through your meter (unlike step 1, this may not be wired through your main switch) and you should contact an electrician to fix this.

Please note that if you have off-peak hot water or other approved storage appliance, your off-peak controlled load meter or register will record usage during off-peak times (overnight) in accordance with the times pre-set on a separate time-clock, the electronic meter or relay. While the time-clock sometimes gets out of step with actual time, due to power outages or daylight saving, it still should only be running for six to eight hours per day – hence it is referred to as “controlled load”. No matter what time this meter is running, all power is charged at off-peak rates. (If you run out of hot water though and have the ability to ‘boost’ your hot water service, this would usually be at peak rates and the usage would record on your peak meter/register).

Step 3: Check your appliance usage

When your meter has stopped, record the meter reading and the time of day. Turn your essential appliances on, i.e. your fridges and freezers, other essential items (preferably those that don't heat/cool). Try to run only the essential appliances for 24 hours and then read your meter again. Subtract the first reading from this reading to find out the total amount of kilowatt-hours (kWh) you have used in the 24 hour period.

To check the usage of other appliances, run one for a period during the next 24 hours and read the meter again. Subtract the previous reading from this one and you will again know the total amount of kWh used in the 24 hour period. Compare this to the first period where you only ran the essential appliances and you will know how many kWh this other appliance has used for the number of hours you ran it.

For example, you may find your essential appliances used 10 kWh for the first 24 hour period and when you ran your air-conditioner for 5 hours at night, in addition to the essential appliances, the total reading was 25 kWh. The difference is 15 kWh and this is the amount of power used by your air-conditioner for 5 hours, i.e. 3 kWh per hour. The next day you can run another appliance and work out the usage by using this same method.

By undertaking this type of audit for a week, running different appliances during each 24 hour period, you will soon identify how your appliances are contributing to the bills you are receiving.

To check the usage of small individual appliances you can contact your local library for a Home Energy Toolkit and use the appliance meter included in the kit. Alternatively, refer to *Fact Sheet 8 – Measuring Appliances* which will help you calculate the appliance ratings of individual appliances.

Step 4: Seek help

If you believe the bills are still too high, or the usage that is recording with each appliance is far higher than that particular appliance should use, you should consult an electrician to check your appliances or contact your energy retailer to have the meter tested.



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