Factsheet

Measuring your electrical usage

This Fact Sheet builds on the information provided in *Fact Sheet: Meters explained*. Here we describe how you can measure the amount of energy your electrical appliances use.

Please read this fact sheet if you want to know how to:
- measure how much electricity you use
- use mechanical meters
- use electrical meters

Introduction

There are a number of ways that you can measure how much energy your appliances use.

The best place to start is the Home Energy Toolkit, which is available from councils and libraries. It contains an appliance meter that can measure how much energy each of your appliances uses.

You can also measure the kilowatt (kW) rating of your appliances by checking your meter

and doing your own calculations. You'll need a pen and paper, a stop-watch or timer to count one minute, and a calculator.

The actual steps you need to take will depend on whether you have a mechanical meter, an electronic meter or a smart meter.

Mechanical meters

These are examples of mechanical meters. Both have a rotating disk and work like the odometer in your car.

Follow these steps to measure your appliance usage on a mechanical meter.

- Turn off all appliances, lights etc.
- Turn on the appliance you want to measure.

- Go to your meter and find the black mark on the rotating disc. This will help you count the revolutions.
- Count the number of revolutions the disc makes in one minute while the appliance is running.
- Multiply that number by 60 (this gives you revolutions per hour).
- On the information plate on the meter, find the number labelled as "RPK" or "Revs per kWh".
- Take the number of revolutions per hour you calculated and divide by the RPK. This will give you the kilowatts used by this appliance.

The result is the kilowatt rating of the appliance.

For example, if you count 10 revolutions in one minute and the RPK is 400, you would calculate the rating as follows:

10 x 60 = 600 revolutions 600 ÷ 400 = 1.5 kilowatts

This means the appliance is rated at 1.5 kW and would use 1.5 kilowatt-hours (kWh) for each hour you use it. If you run the appliance for 8 hours, then it would add 12 kilowatt-hours (kWh) to your total usage.

Electronic meters

These are examples of electronic meters. They show the reading on a display screen.

Follow these steps to measure your appliance usage on an electronic meter.

- Turn off all appliances, lights etc.
- Turn on the appliance being measured.
- On the face of the meter there will be a small light or an indicator on the display screen.
- This light will pulse and each pulse registers one watt-hour.
- Count the number of pulses in one minute while the appliance is running.
- Multiply the number by 60 (to calculate pulses for an hour).
- Divide the number by 1000 (to convert the watts to kilowatts).

The result is the kilowatt rating of the appliance.

For example, if you count 25 pulses per minute you would calculate the rating as follows:

25 x 60 = 1500 watt-hours 1500 ÷ 1000 = 1.5 kilowatts

This means the appliance is rated at 1.5 kW and would use 1.5 kilowatt-hours (kWh) for each hour you use it. If you run the appliance for 8 hours, then it would add 12 kilowatt-hours (kWh) to your total usage.

Note: appliances with a thermostat may consume up to 40 per cent less kWh than the above calculations, as they will turn themselves on and off.

If you believe the amount of energy recorded with each appliance is far higher than it should be, you'll need to get an electrician to check the appliances or contact your energy supplier to have the meter

tested. There may be a charge for this, but if the meter is found to be faulty the charge will be waived.

Smart meters

Smart meters look like electronic meters and can record your electricity use every 15 or 30 minutes and send the data to your supplier and distributor electronically. If you have this type of meter, you can measure your usage in the same way as for electronic meters (see above). Your supplier should also offer online tools that can be used to monitor your usage.

For additional information on smart meters, see *Fact Sheet: Smart meters*.

If you believe your bill is unusually high because of a billing error, ask your supplier to explain it to you or to carry out a full investigation. If you're still not happy after contacting your supplier, contact us for assistance.

Further advice

The Energy Advisory Service offers free independent energy advice and can be contacted on www.sa.gov.au/energysmart or call 08 8204 1888.

You can also go to www.energymadeeasy.gov.au to compare electricity and gas offers for your home or small business.

You may see in your bill usage information for other similar households – it may be useful to compare your usage against that information.

Free call: 1800 665 565   Free fax: 1800 665 165   Post: GPO Box 2947 Adelaide 5001
Interpreter: 131 450   National Relay Service: 133 677   Web: ewosa.com.au

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