

### Measuring your Electrical Appliances

To check the usage of individual appliances you can contact your local library for a Home Energy Toolkit and use the appliance meter included in the kit. Alternatively, you can measure the kilowatt (kW) rating of your appliances yourself by checking your meter and doing your own calculations.

You will need a pen, paper and a calculator, as well as access to your meter.

#### Mechanical Meters

1. Turn off all appliances, lights, etc;
2. Turn on the appliance being measured;
3. On the rotating disc there is a black mark to assist with counting the revolutions. Count the number of revolutions the disc makes in one minute while the appliance is running.
4. Multiply that number by 60 (to calculate revolutions per hour).
5. On the information plate there is a number labelled as "RPK" or "Revs per kWh". Divide the number of revolutions per hour by the RPK.

#### The result is the kilowatt rating of the appliance.

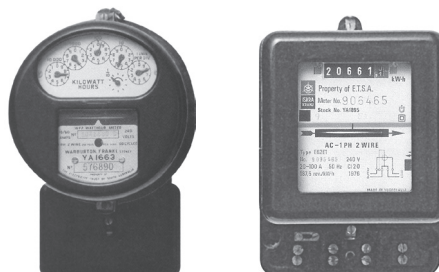
For example, where you count 10 revolutions per minute and the RPK is 400; you would calculate the rating as follows:

$$10 \times 60 = 600 \text{ revolutions}$$
$$600 \div 400 = 1.5 \text{ kilowatts}$$

The appliance is therefore rated at 1.5 kW.

If used for one hour, the appliance would use 1.5 kilowatt-hours (kWh).

#### Examples of Mechanical Meters



#### Electronic meters (refer overleaf)

1. Turn off all appliances, lights, etc;
2. Turn on the appliance being measured;
3. On the face of the meter there will be a pulsating signal - either a small light or an indicator on the display screen. Each pulse registers one watt-hour. Count the number of pulses in one minute while the appliance is running.
4. Multiply the number by 60 (to calculate pulses for every hour).
5. Divide the number by 1000 (to convert the watts to kilowatts).

#### The result is the kilowatt rating of the appliance.

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

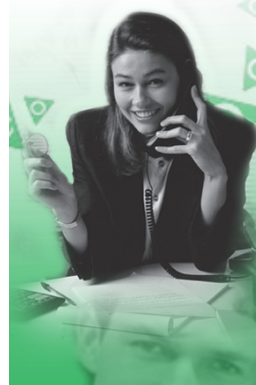
$$25 \times 60 = 1500 \text{ watt-hours}$$
$$1500 \div 1000 = 1.5 \text{ kilowatts}$$

The appliance is therefore rated at 1.5 kW.

If used for one hour, the appliance would use 1.5 kilowatt-hours (kWh).



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# MEASURING APPLIANCES

## Examples of Electronic Meters



### Please note

Appliances with a thermostat may consume up to 40% less kWh than the above calculations as they will turn themselves on and off.

If you believe 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 – there may be a charge for this but if the meter is found to be faulty the charge will be waived.



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