What is a kilo-watt hour?

One kilowatt-hour (kWh) is one unit of electricity. Kilowatt-hours measure the amount of electrical energy used by an appliance when it is turned on. The amount of kWh needed to power an appliance depends on the appliance's power (the wattage) and on the length of time it is switched on for.

How do I find the wattage of a device/appliance?

A. Sometimes the wattage is stated on the device, or if you have the packaging, it will probably be shown there. Alternatively try searching for the device on the internet – the wattage is usually specified in the product or technical details.

How do I work out how many kWh an electrical device uses?

A. Take the wattage of the device (see above), multiply by the number of hours you use it, and divide by 1000. (Dividing by 1000 changes it from watt-hours to kilowatt-hours.)

How many kWh are needed to power some items in my home?

A. Here are some common electrical items that you might have in your home and the amount of kWh of energy needed to power them:

- ► 1 kWh will power a 100-Watt light bulb for 10 hours.
- ► A heater rated at 1000 Watts (1 kilowatt), operating for 1 hour uses 1 kilowatt hour of energy.
- ► Using a 60 Watt light bulb for 1 hour consumes 0.06 kilowatt hours of electricity.
- ► Using a 60 Watt light bulb for 10 hours consumes 0.6 kilowatt hours of electricity.
- ► Using a 60 Watt light bulb for 100 hours consumes 6 kilowatt hours of electricity.
- ► Using a 60 Watt light bulb for 1,000 hours consumes 60 kilowatt hours of electricity.
- ► A PlayStation 3 System uses approximately 190 Watts.
  So if we play for 1 hour we will use 0.19 kilowatt hours of electricity.
  If we play for 5 hours we will use 0.95 kilowatt hours of electricity.
  If we play for 10 hours we will use 1.9 kilowatt hours of electricity.
- ► An Xbox 360 250GB uses 135 Watts when operational.
  So if we play for 1 hour we will use 0.135 kilowatt hours of electricity.
  If we play for 5 hours we will use 0.675 kilowatt hours of electricity.
  If we play for 10 hours we will use 1.35 kilowatt hours of electricity.
- ► An LED TV with a screen size of 50 inches uses 71.5 Watts when in 'On' mode.
  So if we watch TV for 1 hour we will use 0.0715 kilowatt hours of electricity.
  If we watch TV for 5 hours we will use 0.3575 kilowatt hours of electricity.
  If we watch TV for 10 hours we will use 0.715 kilowatt hours of electricity.

Now why don't you have a go?

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