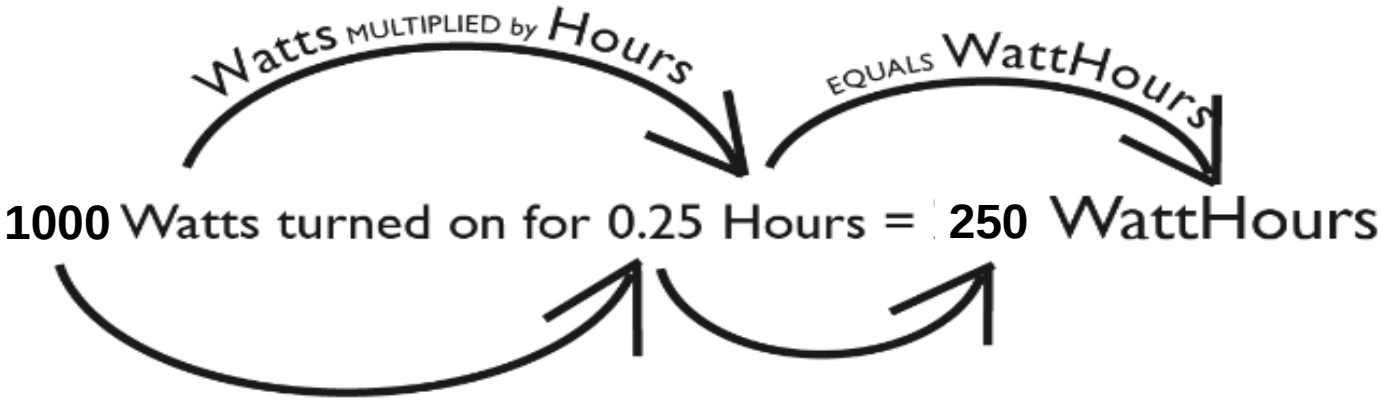
POWER and ENERGY are *different* things

POWER	ENERGY
How *fast* the energy is used	How fast the energy was being used *multiplied by* how long it was being used for!
Imagine the drops falling from a dripping tap, or instead from a fully-on hose. How fast the drops (of energy) are dripping is the *rate* of energy transfer ie Power. The fully-on hose represents a more *powerful* flow than the drips	Imagine a bucket that has been sitting under a dripping tap for many hours, or instead under a fully-on hose for a minute or so. The bucket is filled up the same amount at the end of the times and this represents the total *energy* transferred- even though this same amount of energy was transferred at different speeds
Watts, KiloWatts, Joule/second, MegaJoules/Hour	WattHours, KiloWattHours, MegaWattHours Joules, MegaJoules, **UNITS**
If the electricity or gas meter spins fast, then the rate of energy transfer is fast, so the POWER consumption is high (and so will be total energy used if they do it for a long time)	Each time the wheel on the meter spins it is counting a "drop" of energy Each time the light flashes on the meter it is counting a "drop" of energy
The *rate* of energy transfer (Specifically: 1 Watt is a rate of energy transfer of 1 Joule/second) (Power already has an implicit time factor)	Energy is the *product* of the *rate* of energy transfer (ie Power) and *time* Ie: Watts MULTIPLIED by Hours

- A kilowatt is 1000 Watts, just like a kilogram is 1000 grams, or a kilometre is 1000 metres.

Eg: My toaster has a label which says it is 1000 Watts (ie. its POWER is 1000 Watts, or 1kiloWatt), and I have it turned on for 15 minutes (= 0.25 hours)



1000 Watts x .25 hours = 250 Wh (1000 x 0.25 = 250) (Watts X Hours = WattHours)

(to convert to KiloWattHours divide by 1000)
=0.25 kWh (this would add an extra 0.25 Units to my bill)

The toaster will have used 0.25 kWh of ENERGY after 15 minutes
but when it is on it uses 1000 Watts of POWER