

Energy Matters

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Your Lifetime Carbon Debt

“.. I have probably emitted 1,000 tonnes of CO₂ and 300 tonnes is still up there....”

When people talk about Carbon emissions they tend to talk about percentage reductions. That is if we get to a 50% reduction in emissions then everything will be OK. It is a bit more complicated than that, since it is not only how much we emit each year, but how long it stays around.

In actual fact, the IPCC suggests that if you release a tonne of CO₂ today, half of it will still be in the atmosphere in 30 years time. So CO₂ levels are not controlled by how much was emitted last year, but rather how much was emitted over the last 30 years.

This means that CO₂ levels won't start getting better until we reduce our emissions below what they were 30 years ago. If we assume a peak in 5 years time, it will

be a further 15 years before CO₂ levels start reducing.

And there is presumably another delayed reaction. The earth temperature does not react instantly to the CO₂ concentration. I would assume that this would be in the order of years, but unfortunately I cannot find a figure on the internet.

So the critical thing is not “how much have you emitted in the last year” but “how much have you emitted in the last 30 years”, which is fairly close to “How much have you emitted in your life”. I have probably emitted 1,000 tonnes in my life and 300 tonnes is still up in the atmosphere.

It also means that the sooner we start reducing our emissions the sooner it will start getting better.

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Myth of the month: *Leaving a light globe on uses less energy than turning it off for an hour*

There are two possibilities. The first is that when you turn it on, there is a big surge of power to get it to strike. This is clearly incorrect, since if it was true it would blow a fuse.

The second possibility is that in the first 5 minutes it is warming up and uses more power.

So I tried it with my current meter and found a very small difference. Firstly, there was no massive burst of power when it was first turned on. In fact it started at 11.0 watts, climbed to 12.5 watts after 60 sec-

onds then sank back to 12.0 watts after four minutes. Ignoring the initial low values, there is a 5% increase in power over the first four minutes. This corresponds to 15 seconds of use.

There may be a slight effect that it shortens their life, but since they normal turn on and off thousands of times, this effect will also be small.

So.. Turn off lights when you are not using them!

Disclaimer

The views in this newsletter are those of the author and not necessarily those of the Green Loans program

Want to borrow a Power Meter?

Sometimes when doing an assessment it has been useful to be able to monitor the power used by certain appliances.

For things like refrigerators it is difficult, since they are continually turning on and off, so they really need to be measured over at least 24 hours.

So I bought a spare meter that people can borrow for up to a week to take measurements.

However you will need to organise to collect it and return it to my place in Lower Plenty, or I can organise postage for around \$7 each way.

To try and control the usage, I will also charge \$5 a week.

If you are interested, send me an email.

You can borrow a power meter to work out how much power your fridge (or fridges) is using....

Walk Against Warming

In support of the Climate talks in Copenhagen, there is to be a large march in the city, culminating in a Human Sign on Princess Bridge at 11:00 am.

If you want more information go to:

www.waw.org.au

And you can even register to be a Marshall to help build the sign!