



Sustaining the planet: actions you can take to reduce your carbon footprint



# Sustaining the planet: actions you can take to reduce your carbon footprint.

Melbourne, Forster Books, 2008

Richard Eckersley writes that: “The defining question of our times is this: will we make it? There is a real and increasing possibility that global warming, resource depletion, the growing world population, disease pandemics, technical anarchy, and the geopolitical tensions, economic instability and social upheaval they generate, will coalesce to create a nightmare future for humanity this century.

Avoiding this fate will depend critically on the stories we create to make sense of what is happening and to frame our response. A key task is to ensure these stories reflect not the decadence and despair of nihilism or the dogma and rigidity of fundamentalism, but the hope and energy of activism.” (my bold italics)

Futurist Peter Ellyard “argues that we are witnessing a shift in the dominant world view to what he calls planetism”.... his research has found that those embodying planetism exhibit a transformation in values. This shift includes:

- \* interdependence (from independence)
- \* communitarianism (from individualism)
- \* priority to planet (from priority to nation or tribe)
- \* humanity a part of nature (from a separation)
- \* conflict resolution through cooperation (from resolution through confrontation)
- \* sustainable production/life styles (from unsustainable development)
- \* democracy (from autocracy)

This booklet outlines practical actions that you can take to reduce your carbon footprint.

To reduce your environmental footprint, first reduce resource usage, then invest in renewables and only then offset your carbon emissions. The mantra becomes reduce, renew, offset.

Some reductions are easier to achieve than others, either because of expense or the need to radically change behaviours.

#### **First Reduce:**

Take the plunge and choose an easy option from either lighting, car usage, processed food usage or electricity use. When this first step becomes routine, choose another easy option. After all the easy options have become routine, work on the harder options.

- *Lighting: install low energy globes [easier]; leave fewer lights on [easier]*
- *Car usage: walk more [easier]; use home delivery from supermarkets [easier] use public transport more [harder]; cycle [harder]*
- *Processed food usage: grow veggies [easier]; bake bread [easier]; use farmers markets [harder]; buy organic [harder]; keep chooks [harder]; buy food grown within 160 km [harder]*
- *Electricity use: turn off appliances at the powerpoint [easier]; buy 5 star appliances [harder]*

#### **Then Renew [i.e. invest in renewables]**

Now that you've reduced your energy footprint, have a go at investing in renewables; start with the easy options

- *Water tank [easier]*
- *Buy Green Power [easier]*
- *Water recycling systems [harder]*
- *Solar hot water [harder]*
- *Grid connected photovoltaic systems [harder]*

#### **And only then Offset**

- *Car travel [easier]*
- *Plane travel [easier]*

## SUSTAINING THE PLANET

1. REDUCE
2. RENEW
3. OFFSET

REDUCE: EASIER



Our vegetable patch consists of these two metal garden surrounds about 80 cm high and filled with lovely dirt. We placed stones at the bottom to help with drainage and then alternate layers of dirt and compost.



## REDUCE: EASIER



We've found that the easiest vegetables to grow are lettuces, chives, herbs, radishes and banana cucumbers. The two plots will supply enough greens for the year.

Contact your local Bluescope Steel retailer for details about the garden surrounds which come in a variety of colours and dimensions.

The Gardening Australia website is a useful resource at:  
<http://www.abc.net.au/gardening>

## REDUCE: EASIER



Baking bread is a joy. Here's a recipe that works for me. Ingredients: 400 gms white spelt flour; 200 gms whole-meal spelt flour; 3 teaspoons dry active yeast; 2 teaspoons improver; 1 teaspoon salt; 1 teaspoon honey; Liquid: 450 ml warm water [150ml boiling, 300ml cold]; 2 teaspoons oil. Method: Place all dry ingredients in bowl and mix. Add liquid and mix well with spoon until most dry ingredients absorbed. Place dough on floured surface and kneed for 10 minutes. Back in bowl and let rise for 60 minutes. Divide dough in half, punch down and place two pieces in greased bread tin. Cover and let rise until it reaches top of tin. Brush milk on top. Place in oven at 215 c [gas] for 30 minutes or until done



REDUCE: HARDER



The mill I use to grind spelt wheat; my mother-in-law and I bought this years ago so it may be difficult to source. But more modern versions [and the wheat] can be bought from Retsel Corporation at: <http://www.retsel.com.au>.

REDUCE: EASIER



In the near future compact fluorescent globes will become mandatory for all Australian homes. They use less energy and last longer than standard globes. For example a 15W compact fluorescent globe is equivalent to a 75W standard incandescent globe, with a life span of six times that of a standard globe.

REDUCE: EASIER



This photo shows our 2200L rain water tank and associated electric distribution pump. The purple hose is connected to our recycled water supply. Calculate how much rain your roof area can collect by using this formula:

1 millimeter of rain falling on 1 square metre of roof (1m x 1m) will approximately collect 1 litre of water.

You will also need to find out your average yearly rainfall and how you intend using the water [gardens, toilet flushing etc] before deciding on the tank size.

RENEW: HARDER



This grey water recycling unit collects water from laundry and bathroom [hand basin, shower, bath]. The water flows to the sump [in foreground with cover off] where it is pumped to treatment units and finally stored in the 1000L tank in the background. We [2 people] estimate that in a calendar year we will save 52,000L. The water is treated to a high standard and may be used in washing machines, car washing, toilet flushing and garden watering. This is an **Oasis** system which uses a biological process. These systems are not cheap, involve an application process and need Council approval.  
<http://www.nubian.com.au>



RENEW: HARDER



This "Christmas tree" connects our treated water and mains water to a drip irrigation system and to garden hoses. The device at bottom right of the "tree" is a battery operated timer.

## RENEW: HARDER



The picture above shows our grid connected 1.67 kW system (there are ten 167 watt Sharp panels) connected via a Fronius inverter to a meter which registers power imported from the grid and power exported to the grid. If there's a power blackout the system ceases to operate until the grid comes back up. A grid connected system is not cheap even with government subsidies and supplier discounts. Our system was installed by Origin Energy.

## RENEW: HARDER



On the left is the inverter and on the right the meter. The inverter stores a variety of statistics including the CO<sub>2</sub> saved and the amount of electricity produced. During the summer approximately 70% of our power is generated by the ten panels.

The following website has further information:

[http://  
www.greenhouse.gov.au/  
yourhome/technical/fs47.htm](http://www.greenhouse.gov.au/yourhome/technical/fs47.htm)



## REDUCE: HARDER



Fresh eggs, rich compost and insect controllers; why wouldn't you keep chooks in your backyard. Well they do need a reasonable sized yard to peck and scratch in, a shed that can be closed up at night, water and feed; all to be monitored daily. It is a commitment. And then when they come to the end of their laying life, what do you do - dispatch?

In Victoria you can buy a variety of breeds from Abundant Layers. Have a look at: <http://members.freshwaterco.com/abundantlayers>. Check the web in other states.



## REDUCE: HARDER



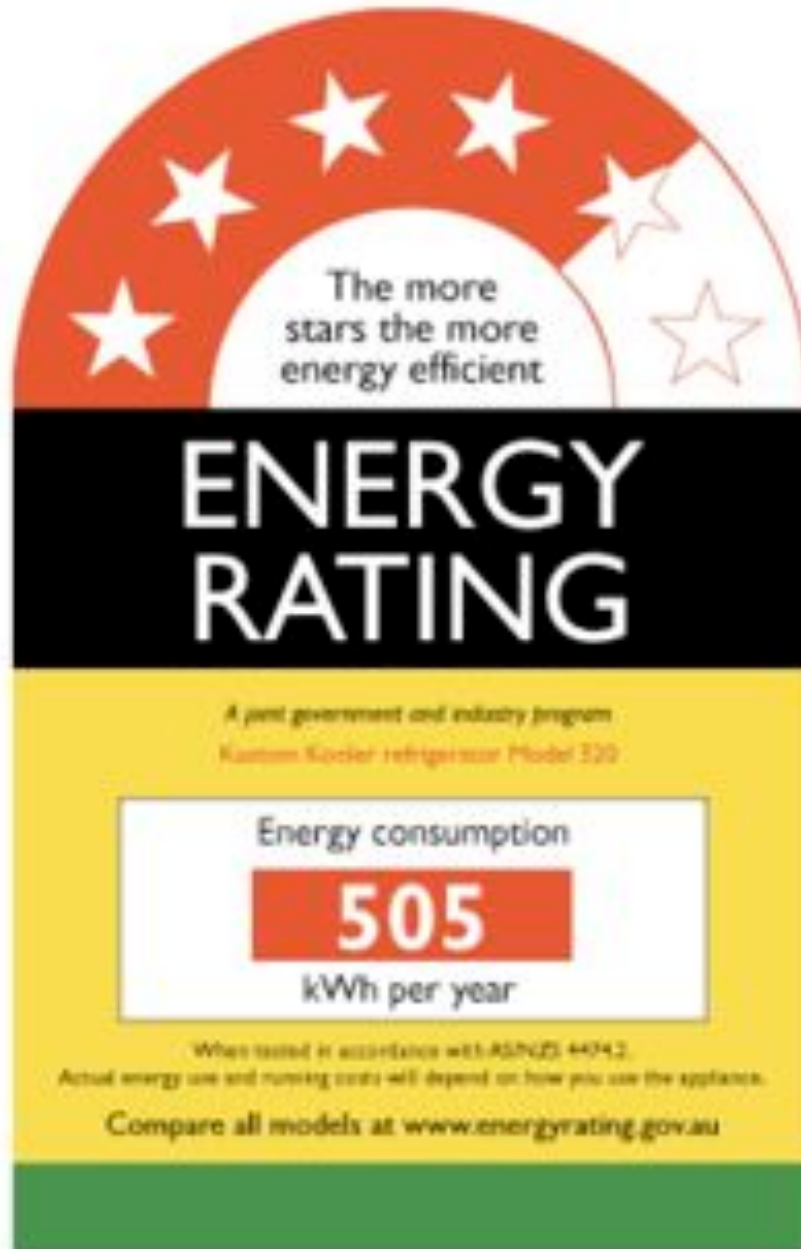
Drip irrigation is an efficient watering method which places water at the base of plants. Hardly any water is wasted through wind, evaporation, run-off or over-spray, especially if the system is covered with mulch. Here's our system prior to mulching. You can install these systems yourself but installers are experienced in design layout and in knowing what devices need to be attached to the system to provide optimal operation. We used a Melbourne company Water Pros; check out: <http://www.waterpros.com.au/>. Check the web in other states.

OFFSET: EASIER



[www.greenfleet.com.au](http://www.greenfleet.com.au) organises tree plantings to offset greenhouse emissions. Use the Greenfleet calculator to find your greenhouse emissions for car, household and air travel per year. The calculator works out how many trees will offset these. Pay Greenfleet to plant trees to offset these emissions.

REDUCE: HARDER



The more stars the more energy efficient - look for them when you purchase your next "white" good.



## REDUCE: HARDER



Farmers' markets provide fresh delicious food, at reasonable prices, sold by the person responsible for its production. The markets will usually sell fresh, in season fruit and vegetables, cheese, honey, flowers, fish, specialty meats and other items. But you may have to travel further than usual and be prepared to wander and relax; this is not supermarket shopping!

The following address will give locations of farmers' markets in your area.

<http://www.farmersmarkets.org.au>



REDUCE: HARDER



Lovely fresh vegetables at the Collingwood Children's Farm market.

For those wanting organic food stuffs delivered to their house, have a look at Organic Angels at:

<http://www.organicangels.com/>

REDUCE; EASIER



Turn off the lights when you leave a room and have fewer lights on at any one time.



REDUCE:  
EASIER



REDUCE:  
EASIER



REDUCE:  
EASIER

Turn of  
appliances,  
where  
possible, at  
the power  
point.  
Try not to  
leave  
equipment  
in stand-by  
mode.

REDUCE: HARDER



This is a photo, taken around 1919, of my father riding a "bicycle".

Using a bicycle to reduce your car travel takes commitment, money and a certain level of fitness.

I've borrowed my daughter's bicycle to travel 2 kilometers to the local gym, three times a week - a small beginning is the way to go.

Later, use the internet to locate your local bike trails. For Victorian and NSW bike path guides, go to:

<http://www.bikepaths.com.au>





**REDUCE:  
HARDER**

Christiania transporters were first made in 1976 in Copenhagen.

<http://www.achievableconcepts.com.au>



**REDUCE:  
HARDER**

This is the bicycle I am beginning to use; at this stage for short trips.



**REDUCE:  
HARDER**

This electric powered bicycle has a range per charge of 50km.

<http://www.evehicle.com.au>

## THE R2O CHALLENGE



If after reading this booklet you have decided to reduce your carbon footprint, the r2o challenge provides simple tools to help you track your progress.

The template on the next page is used to list those areas you are going to target first.

Remember; **reduce**, then **renew** and only then **offset**.

The template on page 26 enables you to set base line data against which progress may be measured.

Finally if you wish to share your successes, send an email to:  
[r2ochallenge@people.net.au](mailto:r2ochallenge@people.net.au)

# THE R2O CHALLENGE

T = areas you are going to Target, mark with an asterisk    A = tick when target achieved

SUSTAINING THE PLANET: the R <sub>2</sub> O challenge							
		EASIER		T	A	HARDER	
						T	A
<b>Reduce</b>	Car usage	Walk more				Use public transport more	
		Use home delivery from supermarkets [e.g. <u>1</u> supermarket van delivering to 10 locations means 'emissions saved']				Use a bicycle	
	Process food use	Grow veggies				Buy food grown within 160 km	
		Bake bread				Keep chooks	
						Use farmers markets	
	Water use	Install low flow showerhead				Buy organic	
		Five minute showers					
		Mulch garden beds				Install drip irrigation system in garden	
						Reduce lawn areas and plant water-wise plants	
	Electricity use	Turn off appliances at the power-point				Insulate house	
		Dry clothes washing outside				Buy 5 star appliances	
		Turn heater/air conditioner down					
		Install low energy globes					
		Leave fewer lights on					
<b>Renew</b>		Turn off light when leaving a room					
		Install water tank				Install water recycling system	
		Buy Green Power				Install solar hot water	
<b>Offset</b>		Install grey water collection system				Install solar panels	
		Car usage					
		Air Travel					

## THE R2O CHALLENGE

Once you have chosen your targets in the **Reduce** category and before you start the **r2ochallenge**, get your last quarterly statements for gas, electricity and water usage, read the speedometer of your car and then enter all the data in the first column. Decide how long you intend to participate in the challenge and go for it.

Data from quarterly bills, usually found on back of statements				
<b>Gas</b>	Data before the challenge	Data after 3 months	Data after 6 months	Data after 12 months
Amount [MJ's]				
Cost in \$'s				
<b>Electricity</b>	Data before the challenge	Data after 3 months	Data after 6 months	Data after 12 months
Amount [kWhs]				
Cost in \$'s				
<b>Water</b>	Data before the challenge	Data after 3 months	Data after 6 months	Data after 12 months
Amount [KL]				
Cost in \$'s				
<b>Petrol</b>	Speedo reading before the challenge	Data after 3 months	Data after 6 months	Data after 12 months
Amount [kilometres travelled]				
Cost in \$'s				



THE R2O CHALLENGE



## Sustaining the planet: actions you can take to reduce your carbon footprint

For further information go to: [www.r2ochallenge.com](http://www.r2ochallenge.com)

If you want to share your progress with others, send an email to:  
[r2ochallenge@people.net.au](mailto:r2ochallenge@people.net.au)

After reading this booklet, sign your name here and pass it onto a friend.



