

Our Climate Friendly Home

Our home is a simple typical 1968 (post bushfires), three-bedroom weatherboard house. We have been continuously working to reduce our energy bills and carbon footprint for about 5 years.



Our current house extension is being built to a very high level of sustainability: # windows double glazed; # passive design (north facing big windows and two smaller family rooms for individual heating, rather than one huge family area, more practical for our family); # self-closing exhaust fans; # second hand material where practicable; # 4-star dual-flush toilet.

The steps outlined below have reduced our power consumption from 13,000 kwh per year to 6,500 kwh (for a family of six) within three years - while staying warm and comfortable.

1. Space heating

- heat only the family room
- hung thick curtains on doorways to keep the heat in the family room while providing easy access to other parts of the house.
- use a timer to warm the house before we get up.
- keep the sleeping area cool
- use hot water bottles to warm beds
- off peak heaters in bedrooms, only used briefly on especially cold days
- toilet room is heated with electrical heater only while using the toilet
- bathroom is heated only in the morning until everyone has showered
- on very hot days, we close curtains rather than use air conditioning

Technology to reduce heating costs

- roof and floor insulation
- double glaze (using perspex) to stop draughts and reduce heat loss (screwed on for fixed windows / magnetic strips for opening windows)
- closed gaps under the doors

2. Hot water

- installed solar hot water

- use timer to boost the hot water only as needed (eg. morning before showers, evening before doing the dishes...)
- installed *industrial grade* pressure reduction valve to prevent leaks (Waterworks has very high mains pressure)
- use thermostat to keep water to a max of 60 degrees (prevents burns too)
- use 40 C wash cycle, 4-star front loader machine

3. Lighting

- replaced all lights with energy saving bulbs
- using LED over dinner table and LED night lights in corridor

4. Solar power supply

- Installed 1.1 kw photo voltaic system



Other measures to reduce our carbon footprint:

- switch off lights when not in use
- switch off electrical appliances when not in use (rather than leaving them on stand-by)
- walk to school
- reduce use of car (think and plan ahead to avoid multiple trips)
- choose fun activities which don't require long car trips
- car pool where practical
- recycle paper, plastic and organic compost
- reuse paper & plastic containers
- reuse "throw aways" for craft work
- mulch garden trimmings
- keep chooks for eggs, compost and as pets
- enjoy buying 2nd hand clothes, furniture, toys
- small vegetable garden
- cooling fan at the back of fridge
- clothes dryer used as secret lolly box only
- 4-star washing machine
- energy-saving shower head
- using cloth bags for shopping
- avoiding over packaged goods
- bought second, energy-efficient, car as alternative to the larger 'people mover'

Future projects

- expand vegetable garden
- use public bus more often as children grow up
- organic bulk shopping as community (doorstep delivery / only yummy stuff)
- fruit orchard to be planted and netted
- rainwater tank up the hill to water garden (collected from house roof and pumped up)
- pelmets and thick curtains