

# 12 tips to lower Greenhouse gas emissions

**1. Lower the temperature on your hot water system in the summer months – with warmer air all around, your system doesn't have to work as hard to heat water. OR, consider putting in a more energy efficient solar hot water system or gas hot water system.**

- Showering with electricity heated water generates about half a kilogram of greenhouse every minute.
- Up to two-thirds of the gas used by a standard gas storage hot water service is wasted as heat loss. High efficiency storage models and instantaneous units that heat water only as needed are more efficient in most situations.
- Using electricity to heat 15 litres of hot water generates one kilogram of greenhouse gas. You can heat nearly three-times that much water and generate the same amount of greenhouse gas by using a gas hot water system.
- Using the sun's energy to heat water can reduce your household hot water costs by more than 80% each year in Queensland, while also conserving our natural resources and reducing greenhouse gas emissions.

**2. Keep your home cool with ceiling fans instead of air conditioning. Or set the temperature on your air conditioning system to 10°C below the ambient temperature, and keep curtains closed over large glass windows and sliding doors.**

- Fans are the most energy efficient cooling system, saving you money and helping the environment.
- Setting your air conditioning system to 'recirculate' will make it more efficient and save the system cooling hot air from outside.
- A temperature setting of 10°C below the ambient temperature will help the system to run at maximum efficiency.
- An air conditioner of 6000 watt output (2400 watt input) run for 6 hours per day will cost you \$135 per quarter (presuming the system is cycling at 75%)
- For Brisbane, it is predicted the number of summer days with temperatures over 35°C will double by 2030, and increase six fold by 2070.

**3. Replace your light bulbs with energy-efficient compact fluorescent globes and turn off lights when you leave the room.**

- The amount of energy required to light the average Queensland home is accountable for around 375kg of greenhouse emissions every year.
- Energy-efficient compact fluorescent globes will last up to eight times longer and use 80% less energy (which equals around one-fifth of the energy of incandescent lamps).
- Over its life, and 11watt compact fluorescent lamp, the equivalent of an incandescent 60 watt globe, saves more than \$50 and around half of tonne of greenhouse gas.
- An ordinary 100watt light bulb generates one kilogram of greenhouse gas every 10 hours, while a compact fluorescent lamp takes 50 hours to produce the same amount of greenhouse gas.
- Leaving a fluorescent light on when you go out doesn't save energy – switch off if you're leaving a room for more than 30 seconds.
- Make the most of natural light and avoid using internal lights during the day where possible.

#### 4. Use water efficient appliances and fittings to limit water waste.

- Most of the greenhouse gas generated by a washing machine is for heating water – cold washing generates only a tenth of a kilogram of greenhouse gas per wash.
- The government website [www.energyrating.gov.au](http://www.energyrating.gov.au) will assist you to search for and compare appliances so you can get the best water and energy efficiency possible.
- Energy consumption by washing machines has been improving since 2000. Most of the improvement is a result of the increase in front-loaders, which use up to 60 percent less water, 30 percent less energy and 50 percent less detergent compared to top-loaders.
- The average star rating of washing machines under the old rating system climbed from 3.39 in 1993 to 4.28 in 2005, which is the equivalent of going from 1.28 to 2.4 under the new star rating system.
- Replace your old toilet with a dual flush system. The 3 and 6 litre dual flush cistern halves the amount of water normally flushed away.
- Dual flush toilets have the potential to reduce a family of four's water usage by up to 67 percent compared with the traditional 11 litre single flush cistern.
- An inefficient showerhead can use 20 litres of water every minute, while an efficient one will give a high quality shower and use only nine litres per minute.
- One three-star rated showerhead can reduce your energy bill by a fifth if using electric hot water (about \$250 a year for the average Queensland household).

#### 5. Fix any leaking taps around the house and install a rainwater tank.

- Leaking taps can waste hundreds of litres every month.
- One drop per second equals two buckets a day, or 7,000 litres of water per year.
- A faster drip could waste 10 litres – or one bucket – every hour.
- Water tanks are a great way to collect water outside for the gardens and flushing the toilet.
- A 3,000 litre rainwater tank connected to 100m<sup>2</sup> roof in the Pimpama area and plumbed to a toilet and laundry would save 40-45 kL/year of mains water.
- It is predicted Queensland can expect up to 15 percent less rainfall by 2030.

#### 6. Upgrade or update your refrigerator

- The most efficient fridges on the market today generate around half as much greenhouse gas as a 15 year old fridge of the same size.
- To help your fridge to run efficiently, make sure there is a gap of approximately 80mm behind the coils so they can ventilate properly.
- Energy consumption by fridges has decreased at an average of 3.9 percent per year between 1993 and 2005, while energy efficiency has increased by an average of 4.6 percent per year.

#### 7. Only use your dishwasher when you have a full load

- Make sure your dishwasher is packed properly with no bulky items taking up space. Large items such as saucepans should be washed in the sink.
- Rinsing dishes under hot running water (heated by electricity) generates up to half a kilogram of greenhouse gas per minute.
- Washing a dishwasher load generates 1-2 kilograms of greenhouse gas.
- The average star rating under the old rating system climbed from 4.07 in 1993 to 5.4 in 2005, or from 1.88 to 2.8 under the new star rating system.

## **8. Catch public transport to work or school, or ride your bike.**

- Driving a car is the single most polluting thing that most of us do.
- One person using public transport for an entire year saves an average of 4.1kg of hydrocarbon, 28.4kg of carbon monoxide, and 2.2kg of nitrogen oxide from entering the air.
- A car that is two litres/100km more fuel efficient will save 300 litres of fuel and 735kg of greenhouse gasses per year.
- The average fuel consumption for family cars is 10km/litre and average distance travelled is 15,000km/year. As emissions from petrol are 2.45kg of CO<sub>2</sub>/litre that means emissions from one vehicle are 3.675 tonnes/year.
- Riding a bike is the most greenhouse-efficient form of transport, and it keeps you fit, too!

## **9. Let your clothes dry naturally on the line.**

- A household that dries all its clothes in an electric drier generates about half a tonne of greenhouse gas each year. That is as much as you'd produce driving a small car from Sydney to Cairns and back!
- Drying a load of clothes in a electric clothes drier generates about 4kg of greenhouse gas through the burning of fossil fuel to make electricity.
- Even though Australia generated around 1.4 percent of total global emissions in 2000, we had the highest per capita emissions of any country globally.

## **10. Put some money into Green Power schemes**

- Green power schemes are available in most of Australia. By paying a little more for electricity, your electricity retailer will buy extra renewable electricity to match your usage.
- Many people think Australia's electricity is 'clean and green', however apart from Tasmania, almost 90 percent of electricity is made by burning coal (fossil fuel).
- For each unit of electricity we use, 2.7 litres of water is consumed to produce it!
- More than 80% of Queensland's electricity is produced by coal-fired power stations.

## **11. Turn off appliances at the wall when you are not using them.**

- Using a screensaver on your computer doesn't save energy – it simply protects the screen from damage. Switch off the screen or set up the energy saving features instead.
- The electricity to run the clocks and lights on your VCR and microwave in Standby-mode account for one eighth of all household energy-related greenhouse gas emissions. Turn off non-essential appliances at the wall, or buy products with low Standby power use.
- An electric towel rail left on all the time can generate up to a tonne of greenhouse gas each year.

**12. Check the pressure of your tyres. How long has it been since you checked yours?**

- Correct tyre pressure can help extend the life of your tyre, improve vehicle safety and handling, and maintain fuel efficiency.
  - Tyres under inflated can overheat, and use more fuel to drive at the same speed.
  - Over or under inflated tyres suffer more damage than those with correct pressure, needing to be replaced more often.
  - More air is usually lost during warmer weather, so more frequent checks are required during the warmer months.
  - Always check tyre pressures with a tyre pressure gauge when the tyres are cold.
  - If you are using your vehicle to carry additional load or weight, always consult your vehicle handbook for the correct loaded tyre pressure.
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