Energy Fact Sheet

Five years ago, who thought that energy would become the most important issue we face? Ten years ago we didn't even know where electricity came from. How many of us ever gave a thought to the relationship between our energy use and our environment?

Australia now has one of the highest rates of greenhouse gas emissions per capita in the world. We are the world champs of pollution. How? Why? Blame our coal: we are cursed with an abundance of coal.



Burning coal for energy is one of the most polluting activities you can do. Hazelwood power station in the La Trobe Valley in Victoria is the dirtiest powerstation in the world, emitting 17 million tons of carbon every year – the worst rate in the developed in the world.

Did you know?

* While other wealthy nations work to cut their greenhouse emissions, **our government is working to increase our greenhouse emissions** by 27 per cent (from 1990 levels) by 2020. (1)

* It would take only around **0.3 per cent of the world's land** area to supply all the world's electricity needs via solar power. (2)

* Australian households create 20% of Australia's GHG emissions because most of the electricity used in the home comes from fossil fuel generators: coal (77%) and gas (14%). (3)

* Renewable energy sources such as biomass, geothermal and wave power can deliver 'baseload' energy. Wind power can also provide 'baseload' power when wind farms are located in a variety of locations. Solar power generates electricity when we need it most – on sunny summer afternoons. (4)

* Australia currently has around 50 wind farms with some 700 turbines in operation, with more under construction. (5)

* The average Australian home uses about 20kW/h of electricity per day, which translates to about 9 tonnes of carbon dioxide emissions per year. (6)

* Fossil fuels provide over 80% of the world's energy. (7)

* Homebush Bay – the site of the athletes' village of the Sydney 2000 Olympic Games – is one of the world's largest solarpowered suburbs. (8)

For more information on how you can help our environment, or to make some suggestions of your own, please go to www.coolaustralia.org



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What can you do?

* We know that you know that **replacing your old fashioned light-bulbs** for the eco-friendly compact fluorescent ones is better for the earth and for your electricity bill. BUT, have you done it yet?

* Chargers and other devices with standby power still drain energy while not in use. If it's plugged in it's costing you precious dollars. Can we offer a little advice? Plug all your appliances and chargers into one of those power boards with eight outlets, and when you want to turn them all off, all you have to do is hit the OFF button at the wall. Easy peasy.



* A computer left on all day, every day uses nearly 1000 Kilowatts of electricity over a year, producing more than a tonne of carbon emissions and costing \$125 a year. A computer that is switched off at the end of the day uses less than 250 Kilowatts, at the cost of \$30 per year. Flick the switch.

* Switch to GreenPower. Buy electricity that is generated by renewable energy sources. We know you've heard it before but we'll keep saying it.

* Get out of hot water. Water heating is the second largest source of household greenhouse gas emissions. We don't mean give up on hot showers altogether, but go easy with the hot water. It takes energy to heat the water, so turn down the thermostat, and if you can, install a solar hot water system. You can cut up to 50 per cent of your power bill by installing a solar hot water system.

* Make your fridge more efficient. You don't need to purchase a new fridge to cut its emission, but make sure the seals actually do seal and aren't letting out cold air. The more cold air that escapes the harder the fridge has to work to make cold air and the more energy your fridge will use. Same applies to your freezer.

* Get hot and cold efficiently. Everyone can reduce their energy consumption by changing how heaters and cooling units are used in the home. Make sure your home is draught free (you'll also spare yourself a stiff neck) and put on a jumper and slippers BEFORE you put on a heater. Likewise, take some clothes off BEFORE you put the air conditioner on. And set your thermostat to a reasonable temperature: 'sweltering' in winter or 'frigid' in summer doesn't really count as reasonable.

* Purchase energy efficient products. Many electrical products now come with an energy rating. Check any product you are about to buy and get as close to a five star rating as possible. Also note that a well-maintained wood-burning slow combustion heater is the most environmentally friendly way to heat your home, and although air-con uses energy, reverse cycle ones are very energy efficient.

Visit www.coolaustralia.org for more information tips on saving energy.

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References:

1. Australian Conservation Foundation 2007, Climate Change: 10 facts about Australia and climate change, http://www.acfonline.org.au/articles/news.asp?news_ id=1513

2. Energy Matters, *Wind and solar power*, http://www.ener-gymatters.com.au/renewable-energy/solar-wind-trivia.php

3. Climate Positive N.D, *Reducing at home*, http://www.climatepositive.org/reducing-at-home/



4. Diesendorf, Mark, 2007, The Baseload Fallacy, http://www.energyscience.org.au/factsheets.html

5. Future Energy 2009, Facts and Stats: Facts on renewable energy, http://www.futureenergy.com.au/facts.html

6. Ha, Tanya, 2009, Green Stuff for Kids, Melbourne University Press, Victoria, Australia.

7. Energy Information Administration 2005, International Energy Annual 2005, US Department of Energy.

8. Ha, Tanya, 2009, Green Stuff for Kids, Melbourne University Press, Victoria, Australia.

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