

Why conserve energy?

To reduce our impact on climate change.

The majority of Australia's energy is generated by burning fossil fuels, such as coal, oil and gas. During this process, greenhouse gases (GHGs) such as carbon dioxide, methane and nitrous oxide are emitted into

our atmosphere. These GHGs trap heat, making our planet progressively hotter. So by conserving energy, you cut your GHG emissions and avoid their negative effects!

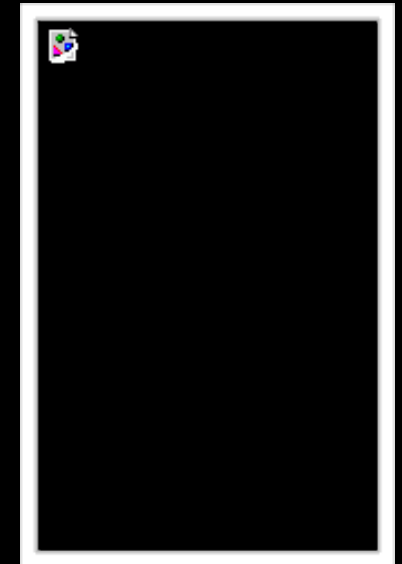


What is MQ doing?

MQ is in the top 200 energy users in N.S.W.

We have a responsibility to actively reduce our GHG emissions. MQ has implemented many initiatives to reduce energy usage and increase our energy efficiency, including:

- Installation of a cogeneration plant. This system reduces greenhouse gas emissions by 44% compared to a traditional system. The cogen system received the NSW state government Green Globe Award for Sustainability in 2001.
- Launch of the Power Saving campaign, designed by MQ student Jenny Tan
- The geothermal air-conditioning of E11A



Power Saving
Campaign

What is MQ doing?

- Continual replacement of high energy light globes with low energy ones
- Mixed mode building for E4A - won a Bronze Medal in the Green Buildings Awards 2003 in recognition of the environmental sustainability of the project. The building incorporates an active façade, which allows the building to be naturally ventilated. The air conditioning is not activated until the temperature exceeds 25 degrees;
- Upper level car park closures after 10.30 pm to reduce the need for lighting on those levels.



E4A

What can you do?

Heating and Cooling

Just one degree Celsius can make a difference in greenhouse gas emissions by 10% (AGO, 2007).

- Dress for the weather!
- Make sure thermostats are no more than 20°C in winter and no less than 24°C in summer.
- Open blinds and curtains if you want heat from the sun to get it. If not, close them to block the sun's heat out.
- Use hot water sparingly. Water heating is the second largest household contributor to GHGs (Australian Greenhouse Office [AGO], 2007)



What can you do?

Computers

A desktop computer used 5 hours per day is responsible for anywhere between 200 and 500 kilograms of GHGs per year.

- Turn off computers when they are not in use. This cuts GHGs, is safer, and extends product life!
- Adjusting the brightness lower on LCD pan monitors can cut emissions to a quarter.
- Minimise use of screen savers.



What can you do?

Other Equipment

“When appliances are switched off at the appliance, but left on at the wall, they may use some energy called ‘standby’ power. Typically... around 45 kilograms of greenhouse gas each year for each item” (AGO, 2007)

- Turn off all energy consuming office, home, and research equipment when not in use.
- Switch microwaves off at the powerpoint. This way they will be using no energy at all.



What can you do?

Lights

In line with Australian Government regulations, MQ is replacing all incandescent globes with the more energy efficient fluorescent lamps. Additionally, MQ is implementing a fluorescent lamp recycling scheme.

- Turn off all unnecessary lights, even if they are fluorescent lamps.
- Use daylight instead of artificial lights when appropriate.
- Use desk lamps where most light is needed to avoid unnecessary bright lighting of the rest of the room.



What can you do?

Windows and doors

Closing windows and doors when heating or cooling an area can save up to 3 kilograms of greenhouse gas per hour (AGO, 2007).

- Unless necessary, do not use automatic handicap doors.
- Never prop open doors.
- Close windows and doors in heated and air-conditioned areas.



What can you do?

In general

- Reduce single occupancy car trips. Walk, cycle, catch public transport or carpool!
- Invest in solar hot water systems and/or turn down the thermostat on your water heater, switch it off when you are going away.
- Switch to accredited green power.
- Turn appliances off at the source.
- Use a clothes line rather than a dryer.



References

- Australian Conservation Foundation, *GreenHome - Action for a Better World*. Accessed at <http://www.livingthing.net.au/RC/pp/ACFGreenHomeNSW.pdf> on 22-09-09
- Australian Greenhouse Office [AGO], 2007. *Global Warming Cool it*. Australian Government Department of the Environment, Water, Heritage and the Arts. Accessed from <http://www.environment.gov.au/settlements/gwci/households.html> on 22-09-09
- Bates College, *Go Green - A Bates Guide to Campus Ecology*. Accessed at <http://www.bates.edu/Prebuilt/Bates%20Little%20Green%20Book.pdf> on 22-09-09.