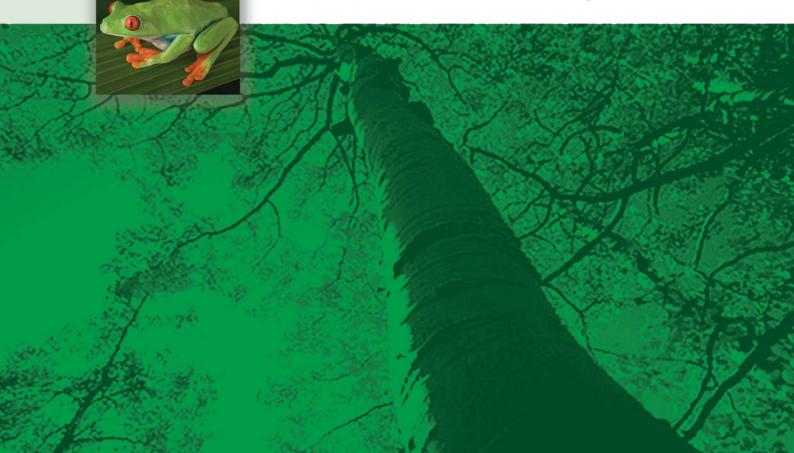






# Evaporative Cooling

The environmental choice in airconditioning



#### Evaporative cooling The environmental choice in airconditioning

33% of Australia's greenhouse gas emissions come from electricity production (Prime Ministers report "Securing Australia's Energy future" – 2004)

A Braemar evaporative airconditioner uses up to 80 percent less electricity than refrigerated units.

- Refrigerated systems include Split Systems and Reverse Cycle airconditioning.
- Refrigerated systems with inverter technology use less electricity than those without inverter, but still use a lot more electricity than Braemar evaporative airconditioners (refer to table).

The running of heating and cooling equipment accounts for around 39% of energy use in the average Australian home Home Greenhouse Audit manual – Department of the Environment & Heritage Australian Greenhouse Office, 2006 Braemar ducted evaporative airconditioning is one of the most efficient way to cool your whole home.

Unlike refrigerated and reverse cycle systems, Braemar evaporative airconditioning won't send your electricity bill skyrocketing every time you use it. In fact a Braemar system only uses up to 1/8th of the power of other systems.... and that can save you hundreds of dollars on cooling every year!



Refrigerated airconditioning consumes more energy and creates more greenhouse gases than fans and efficient evaporative cooling systems. www.yourhome.gov.au Energy consumption in Australia is increasing at the rate of 4% per annum and has doubled in the last 2 decades. (Prime Ministers report "Securing Australia's Energy future" – 2004)

### Evaporative cooling Good for you...

Individuals can make an immediate difference by trying to reduce their personal greenhouse gas emissions. *(www.aninconvenienttruth.com.au 2006)* 

The benefits for the environment are significant every time a consumer chooses an evaporative airconditioner over a refrigerated system.

- Evaporative coolers consume only a small proportion of the electricity consumed by a comparable refrigerated system
  - Therefore less fossil fuels like coal and natural gas will be consumed in the production of electricity.
  - Less electricity generation infrastructure will be required.
- Evaporative systems contain no harmful refrigerants.
   Many of the gases used in refrigerated airconditioning are potent greenhouse gases like hydrofluorocarbons.

The electricity and gas supply industry was a significant user of water in Victoria, consuming 1,536GL, or 22% of water consumption in the state. *Australian Bureau of Statistics "Water Account 2004"* 

Braemar Paradigm series has advanced water saving technology designed to virtually eliminate water waste. WATERmanager™ continuously examines water quality electronically, replacing it only when mineral deposits exceed acceptable levels. The result is that Braemar airconditioners use the minimum amount of water resource to provide maximum cooling effect.

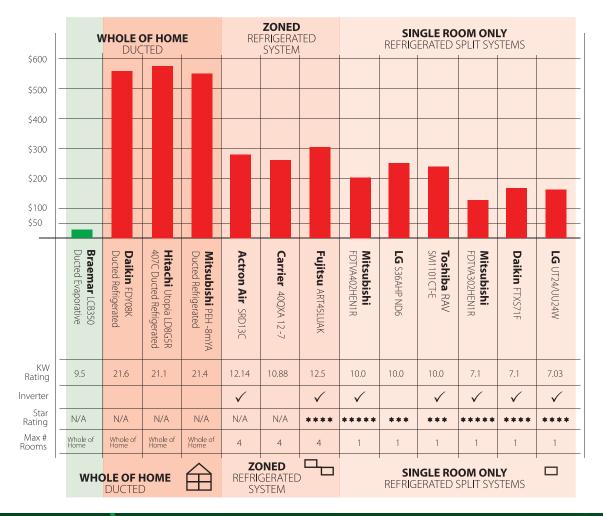
Water is only discharged from the cooler when it reaches 2400 p.p.m. salinity. At this level it is suitable for many garden plants including most lawns. Check with your nursery or council to confirm suitability for garden watering.

Coal, which produced 78% of electricity in 2000-2001, will remain the main energy source for electricity generation despite substantial growth in natural gas and renewables. (Prime Ministers report "Securing Australia's Energy future – 2004) Coal provides the largest source of power for electricity generation , with emissions at least double those of natural gas based on best commercially available technology. (Prime Ministers report "Securing Australia's Energy future – 2004)

# Evaporative cooling ...and your budget.

#### **Annual Electricity Costs**

The chart below illustrates the projected annual electricity running costs for some of Australia's leading brands for cooling only. The data for each of the refrigerated brands was sourced from the Australian Government website www.energyrating.gov.au. The projection is based on 350 hours of cooling (typical Adelaide summer) with an electricity charge of 20c/k Wh (AGL tariff 110 – 20.79c/kwh, in excess of 3.2877 kwhr/day accessed 20/08/04). The sizing of the whole of home units was based on cooling a 148m<sup>2</sup> home.





### Water Consumption





Recognition of achievement at the 2006 Energy & Water Green Globe Awards - Seeley International

www.energyrating.gov.au EQUIPMENT ENERGY EFFICIENCY Australian Greenhouse Office Energy Efficiency Star Awards - Seeley International Enterprise Award 2006

Shower - Ordinary showerhead - 4 people (10 min per person per day)         Shower - water efficient showerhead - 4 people (10 min per person per day)         The Factor         Toilet - single flush (11 ltr 4 person home)         Washing Machine - Top Loader (7kg x 1 wash per day)         Washing Machine - Top Loader (7kg x 1 wash per day)         The estimated household wat a typical Adelaide (1987) with a medicole (200 ltr capacity, 1 bath per day)         Washing Machine - Front Loader (7kg x 1 wash per day)         The estimated household Au tarta is sourcee 'How much water do Household Au tarta is sourcee 'How much water do Household Au tarta is sourcee 'How much water do Household Au tarta is water do Household Au tarta is sourcee 'How much water do Household Au tarta is water do Hou	200,000+
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<b>Braemar</b> Evaporative airconditioning system (358 hours of cooling)	
Dishwasher (1 x 18 ltr capacity per day)	

## **Air-conditioner** blitz aimed at saving energy

#### GABRIELLE KNOWLES

Energy Minister Francis Logan hopes a ban on inefficient air-condi-tioners will stop a repeat of last year's energy crisis where thousands of homes were hit by blackouts in Feb-ruary because the State's electricity service could not cope with demand. "Rather than spending \$400 million

to build another power station to cope with spikes in use, we want people to conserve energy by purchasing more efficient air-conditioners," he said. extract from The West Australian, December 19, 2006

### Blackouts loom for arid state

#### **Greg Roberts**

TWO million people in southeast Queensland face the prospect of power blackouts and electricity price rises in the new year as the water crisis in the drought-ravaged region intensifies.

The Queensland Water Commission warned last month that water supplies from the Wivenhoe dam to the Swan-bank and Tarong North power stations were likely to be cut off or substantially reduced early next year if the dry conditions continue, as expected. extract from The Australian, December 29, 2006

Power bills set to surge, warns minister EXCLUSIVE

CLINTON PORTEOUS CANBERRA

HOUSEHOLDERS househoubers should prepare them-selves for electricity price increases of up to 40 per increases of up to 40 per cent as Australia switches to "clean green" energy sources, federal Industry Minister Ian Macfarlane has warned extract from The Adelaide Adertiser, December 27, 2006



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