



Left: Ferguson Plarre’s new bakehouse in Melbourne includes hot water generation using heat reclaimed from refrigeration, monitoring of energy and water consumption, and rainwater tanks for toilet flushing, irrigation and truck washing. Ferguson Plarre

Stand-out progress from our corporate first-movers

In May, the National Business Leaders Forum on Sustainable Development meets for the 10th time. More than ever business leadership is needed to help us all address the challenges around climate change, water availability and species loss. Here’s a quick look at some committed corporate stars.

Banking and finance

Westpac, which pioneered CSR investment with their Westpac EcoFund, has achieved 45 per cent reductions in greenhouse gas emissions since 1996. The company has now saved over US\$7 million in energy costs by reducing its carbon footprint, and is helping customers reduce theirs through initiatives such as its green mortgage scheme. Westpac, in fact, has committed to becoming entirely climate neutral – as have the National Australia Bank and ANZ.

Professional services

PriceWaterhouse Coopers (PwC) were the first of Australia’s large professional services firms to make the commitment to

become carbon neutral. PwC stated that they ‘have implemented a three-pronged approach to achieving carbon neutrality which has focused on reducing greenhouse gas emissions, investing in renewable energy and offsetting the residual by purchasing accredited offsets.’

KPMG Australia has also committed to becoming climate neutral and is making rapid progress.

Across other sectors such as insurance, water utility and media, many Australian companies have committed to becoming climate neutral and improving the efficiencies of their operations ...

Buildings and the built environment

Globally, buildings contribute roughly 40 per cent of anthropogenic greenhouse gas emissions. The IPCC Fourth Assessment Report’s mitigation chapter on residential

and commercial buildings showed that five-fold energy efficiency gains could be achieved in the design of new green buildings.

Most major engineering, architecture and development firms are embracing green building design and renovation (see page 18), and there are already good examples of green buildings in Australia, some of which were featured at the recent 2009 Green Cities conference run by the Australian Green Building Council and the Property Council of Australia.¹

Leaders in the domestic building sector include Delfin Lend Lease, who is partnering with CSIRO, Sustainability Victoria and Henley Property Group to design and build Australia’s first zero-emissions and carbon-neutral home in the community of Laurimar, 30 km north of Melbourne.

Cement

Ordinary Portland cement manufacture is responsible for between 6 to 8 per cent of global greenhouse emissions and this is rising with demand. The good news is that Australian company Zeobond, based in Melbourne, is now making geo-polymer cement that reduces greenhouse gas emissions by over 80 per cent. According to CSIRO, geo-polymers can be used for every major purpose for which Portland cement is currently used.

Pulp and paper mills

In Australia, Visy Industries’ virtually climate neutral Tumut Paper and Pulp Mill

in NSW has its process heat provided by renewable sources (black liquor and waste wood), while two-thirds of its electricity is generated on-site by a co-generation system – the remainder is sourced from

¹ See Green Cities 2009 Conference at <http://www.greencities.org.au/presentations.asp>, accessed 12 March 2009.



Westpac is one of the pioneers of CSR and with the NAB and ANZ has committed to becoming carbon neutral. Westpac

hydroelectricity generation nearby. No water is discharged off the site, and treated waste water is used for the irrigation of pastures. Total water usage is just one-fifth of the average water consumed by pulp mills elsewhere in the world.

Information technology

With the energy consumed by computers, data centres and servers now a rising business cost, the IT industry is increasingly focused on how to reduce the



IBM's Project Big Green is aimed at reducing energy consumption in data centres. IBM

carbon footprint of these technologies. For example, IBM will be allocating US\$1 billion per year to its Project Big Green, which focuses on data centre efficiency. IBM claim the project outcomes will enable the average 2300 m² data centre to reduce energy costs by 42 per cent. The Natural Edge Project has shown that 84 per cent energy efficiency gains are possible for data centres through good design.²

Manufacturing

Fuji Xerox Australia is a national leader in remanufacturing – products, technologies and services are designed with low carbon performance in mind. Its Extended Producer Responsibility program, where equipment and parts are taken back from the customer at 'end of life' and remanufactured or recycled, achieves over 99 per cent resource recovery. The company has also committed to purchasing 100 per cent renewable energy by 2010.

Other Australian manufacturing companies such as Interface Australia, Dulux and Sustainable Living Fabrics are leading with climate neutral products.

Restaurants

TV chef, author and restaurateur Kylie Kwong is the first in Australia to achieve a net climate neutral restaurant with her Billy Kwong restaurant in Sydney, through purchasing 100 per cent renewable energy offsets. At Billy Kwong they also serve only organic and biodynamic produce, Australian Marine Conservation Society certified seafood and, where possible, fair trade products.

Kwong is following in the footsteps of famous low carbon/ climate neutral restaurants in Europe such as *Bordeaux Quay* in Bristol, *The Acorn House* in London and *Foodorama* in Berlin.

Supermarkets

In Australia, the Coles Supermarkets chain has been able to achieve cost-effective reductions in energy used by store lights and refrigeration of 40 per

cent and 30 per cent respectively, thanks to their Environmental Concept Stores.

In the UK, supermarket chain Tesco is showing what is possible through their new eco-stores, which use 70 per cent less energy than a similar structure built just three years earlier.

Bakeries

Working with the former Department of Industry Tourism and Resources' Energy Efficiency Best Practice Program (1998–2003), Bakers Delight has reduced greenhouse emissions by 50 per cent in a standard bakery through energy efficiency measures.

Family owned bakery, Ferguson Plarre Bakehouses, have gone even further and are close to being climate neutral. They were one of four national businesses named as finalists in the 2008 Australian Banksia Environmental Awards.

Across other sectors such as insurance, water utility and media, many Australian companies have committed to becoming climate neutral and improving the efficiencies of their operations – both environmentally and financially.

The Natural Edge Project has published a number of free online training resources and books to assist companies to achieve these results (see below).

- Michael Smith, Karlson Hargroves, Peter Stasinopoulos and Cheryl Desha

More information:

Australian Energy Efficiency Best Practice case studies, http://www.ret.gov.au/energy/efficiency/best_prac/Pages/default.aspx

Lawrence Berkeley National Laboratories Industrial Energy Analysis – sector assessments, <http://industrial-energy.lbl.gov/node/96>

Smith M, Hargroves K, Stasinopoulos P, Stephens R, Desha C and Hargroves S (2007) *Energy Transformed: Sustainable Energy Solutions for Climate Change Mitigation*. The Natural Edge Project (TNEP), Australia. http://www.naturaledgeproject.net/Sustainable_Energy_Solutions_Portfolio.aspx

Stasinopoulos P, Smith M, Hargroves K and Desha C (2008) *Whole System Design: An Integrated Approach to Sustainable Engineering*. Earthscan, London, and The Natural Edge Project, Australia. http://www.naturaledgeproject.net/Whole_System_Design.aspx

Weizsacker E, Hargroves K, Smith M and Stasinopoulos P (2009) *Factor 5: Stimulating the Global Economy Through 80% Improvements in Resource Productivity*. Earthscan, London (forthcoming) <http://www.naturaledgeproject.net/factor5.aspx>

² Stasinopoulos P, Smith M, Hargroves K and Desha C (2008) *Whole System Design: An Integrated Approach to Sustainable Engineering*. Earthscan, London, and The Natural Edge Project, Australia.