

Doing the right thing | Sustainability Strategy **2007–2015**

Doing the right thing.

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All of us, every day.

Foreword



Welcome to the Woolworths Limited Sustainability Strategy 2007–2015.

Woolworths has been around for over 80 years. We're proud of our history and reputation as a successful business. And we know that the world is changing. We recognise that our customers, shareholders, staff and other stakeholders now expect us to be aware of and respond to the challenges of sustainability.

For an organisation as large and diverse as Woolworths, the issues around sustainability are complex and the challenges tough. But we've never shied away from dealing with tough issues before, and that has contributed greatly to our achievements in the past.

The way we see it, sustainability is about doing the right thing. At Woolworths we have always been very proud of our strong values. As one of Australia's largest companies, the changes we make can have an enormous impact – on our shareholders, our suppliers, our staff, our customers, and our local communities. But more than anything, sustainable behaviour just makes good business sense.

We know we have a lot of work to do on these issues. And we don't have all the answers now. But we are serious about asking the right questions.

We don't see sustainability as a stand-alone activity. Instead, it is a process that we are embedding in everything we do. With 180,000 employees working in almost every city and town across Australia and New Zealand, the task of changing our behaviour is a big challenge. But it's a challenge I believe we can meet, because that's the Woolworths way of doing things.

This strategy sets us on the pathway for change. We have set out the areas we will focus on, and how we plan to address them. Transparency and openness are important so, wherever possible, we have identified specific actions to take, performance measures to assess and targets to aim for. There will be significant financial investment required to bring this strategy to life, and we have applied the same rigour to our decisions about investment in sustainability initiatives as we normally do to any other business decision. The majority of the investments required in achieving our targets deliver ongoing and long-term cost savings to our business.

Climate change is the major environmental issue facing our business. Therefore, chief among our targets is for our carbon emissions to remain at 2006 levels out to 2015. This represents a 40 percent reduction in emissions from our fixed assets on projected business growth and will make a significant contribution to Australia's climate change response. In addition to this target we have also set carbon emission reduction targets for our transportation fleet.

We will report regularly on our progress against this and all our other targets, and engage in an ongoing dialogue with all our stakeholders.

I encourage you to read this document and keep challenging us to do better.

Michael Luscombe

Managing Director and Chief Executive Officer

What sustainability means to Woolworths Limited

Sustainability is about what we do and how we do it. We are proud to be a successful business. But in order to be sustainable over the long term, our success must not come at the expense of the societies, economies and environments we are a part of.

We know that we have a lot to learn and many changes to make along the way, but we are committed to taking the important first steps in the sustainability journey.

Because at Woolworths sustainability means doing the right thing – by our customers, employees, shareholders, the community and the environment.

It's about listening.

As our knowledge of the way in which human societies impact on the natural world develops, society's expectations of corporate conduct have evolved. Quite rightly, our stakeholders expect us to consider the broader, long-term implications of our operations as a part of our decision-making processes.

It fits with our values.

Our industry is evolving, and while the concept of sustainability is a relatively new one for retailers, prioritising sustainability is entirely consistent with the core principles that have underpinned Woolworths since we first opened our doors 83 years ago: integrity, trust, and accountability.

It's about looking forward.

In recent years, environmental sustainability has risen to become an everyday concern. The impact of the current drought and extreme weather events such as Cyclone Larry on Australian fresh produce supplies has brought into focus the effects that climate change will have on our business. Paying attention to sustainability is about future-proofing our business.

It's about leadership.

We recognise that Woolworths can take a more prominent role in the debates around sustainability. It is fair to say that Australian and New Zealand retailers have lagged behind companies in the United Kingdom and Europe. So we are committed not just to contributing to the debate but to taking specific, measurable actions to improve our performance.

By virtue of our size, scale, and the complexity of our business, Woolworths is a significant player in the Australian and New Zealand economies. With that profile comes not only a responsibility to understand and manage our impacts, but also a tremendous opportunity to achieve lasting and beneficial change that extends beyond our own operations. We aim to move to a leadership position on sustainability.



Our major commitments and targets.

40% reduction in carbon emissions on projected growth levels by

2015, maintaining 2006 levels

At least

200
million litres
of water to be saved each year

of water to be saved each year through Water Wise project

3.4
million

reusable crates to replace single-use waxed boxes



zero

food waste in the general waste stream by 2015

25%

reduction in carbon emissions per carton delivered by Woolworths-owned trucks by 2012

Our major brands.

WOOLWORTHS LIMITED

































Who is Woolworths Limited?

Woolworths Limited is an Australian retail company made up of a number of businesses all providing our customers with quality, range, value and everyday low prices. We're built on a passion for retail, attention to detail, working hard, ensuring the safety of our customers and our people, and having fun.

Our mission is to deliver to customers the right shopping experience – each and every time.

Since opening our first store in 1924, Woolworths has changed the face of Australian retailing. Starting with a single basement store in Sydney, we are now a household name with a presence in almost every metropolitan and regional centre in Australia and New Zealand.

Location

Woolworths Limited is an Australian company, with its corporate office in Sydney.

We operate almost 3,000 stores, petrol sites, support offices and distribution centres in Australia and New Zealand, hotels in Australia, and are involved in a consumer electronics joint retail venture with the Tata Group in India.

Brands

Our major brands are:

- Woolworths.
- Safeway.
- Caltex/Woolworths Petrol.
- Dick Smith Electronics.
- PowerHouse.
- Tandy.
- BWS.
- Dan Murphy's.
- BIG W.
- Foodtown (NZ).
- Countdown (NZ).
- Woolworths (NZ).

Shareholders

- Woolworths Limited is one of Australia's largest public companies.
- We have approximately 320,000 shareholders, plus around 40,000 employee shareholders, making us one of the largest employee ownership corporations in Australia.
- Over 90 percent of Woolworths Limited shareholders are 'mums and dads', holding 5,000 or less shares.

People

- Woolworths employs around 180,000 people. Some 50,000 of our employees are located in rural and regional areas.
- We are the largest private employer in Australia.
- We train more apprentices than any other company in Australia.

Sales

- Woolworths Limited had sales of \$42,477 million for the 2006–2007 financial year.
- We serve over 21 million customers per week across all our retail businesses.

Financial performance 2006–2007

- Earnings before interest, taxation, depreciation and amortisation (EBITDA) \$2,700.6 million.
- Net operating profit after tax \$1,294 million.
- Returns to shareholders \$893.6 million.

Projected growth

As at December 2006 we had 2,707 stores operating. By 2015 we estimate over 850 additional stores, excluding acquisitions. The projected growth in the number of retail sites has been estimated mainly based on the following assumptions:

- 15–25 new supermarkets and expanding existing stores.
- 6-10 BIG W stores each year.
- Up to 20 Dan Murphy's stores each year.
- More than 20 stores per year in consumer electronics (for the next two to three years).

Our external engagement

Given our size, scope and reach, we know that we are a significant part of the Australian community and that our actions and operations do have an impact beyond our immediate interactions with customers, shareholders and staff.

In recognition of this fact, Woolworths has a number of programs in place to engage with stakeholders. Through these avenues we seek input and advice, communicate in an open and transparent manner and share knowledge and learn from groups and individuals who have an impact on or an interest in Woolworths.

In this section we profile those partnerships that are directly relevant to our sustainability strategy.

Sustainability Advisory Group

We have recently formed a Sustainability Advisory Group comprised of leaders in the fields of environment, sustainability and corporate responsibility.

The role of the Group is to provide independent strategic advice and a diverse range of views to Woolworths' CEO and senior management group and help Woolworths achieve best practice in sustainability and corporate responsibility in the retail sector.

The following individuals have accepted our invitation to become members of the Group and will meet for the first time in late 2007.

Mr Greg Bourne CEO, WWF Australia

Ms Roberta (Bobbie) Brazil

Chair, Australian Landcare Council

Dr Walter Cox

Immediate past Chairman, WA Environment Protection Authority

Dr Simon Longstaff

Executive Director, St James Ethics Centre

Mr Geoff Mabbett

CEO, Sustainability Victoria

Ms Maryanne Macleod

Group Manager – Strategic Direction, Environment – Bay of Plenty, New Zealand

Ms Sam Mostyn

Group Executive, Culture and Reputation, IAG

Ms Fiona Wain

CEO, Environment Business Australia

Mr Bob Walsh

Chair, Sustainability Victoria and CEO, VicSuper

Partnerships

Landcare Australia

We are working with Landcare to fund sustainable farming programs through a Drought Grants Partnership. Our aim is to support grass roots sustainable farming projects by landholders and community networks. Projects that receive grants will be implemented by community Landcare groups or natural resource management organisations guided by Landcare Australia. The projects will also provide volunteering opportunities for our staff.

CSIRC

The CSIRO has developed the Future Fuels Forum, a research program that will bring together fuel stakeholders from community, industry and government. The nine-month, sector wide initiative will develop and analyse scenarios to address the challenges facing secure and sustainable transport fuel in Australia to 2050. Woolworths will provide financial support for the project.

Ethical sourcing

We will be seeking to form a partnership with a leading ethics advocacy group, to develop tailored training for our buyers to help them understand and more effectively manage issues around ethical and sustainable sourcing.

Carbon footprinting for consumer products

Woolworths, in partnership with the Australian Food and Grocery Council, will initiate research and promote debate on the feasibility of developing a carbon footprinting scheme for consumer products in Australia in the next 12 months and will invite and welcome involvement from our major suppliers, government and environmental groups.

Planet Ark

Research commissioned by Planet Ark shows that there is still a great deal of confusion amongst consumers about what materials can be recycled and where. We are working with Planet Ark to develop a consumer education campaign through our stores to boost recycling rates, reduce contamination and improve the quality of materials going into the recycling stream.

Stakeholder engagement framework

We have recently begun developing a stakeholder engagement framework than can be used across all areas of our business. We want to work with internal and external stakeholders to understand their views and expectations about a broad range of issues relating to our business, including but not limited to environmental sustainability. We aim to work effectively with stakeholders to achieve outcomes that benefit everyone.

Engaging our people



With 180,000 employees located across a wide geographic area, consistently promoting and implementing sustainable business practices is a challenge. But equally, our people are the most effective resource we can use to drive change. Many of our initiatives have been developed as a result of ideas from employees, and we place great value on their input.

Eco Ambassadors

Through our Eco Ambassador Program we are developing sustainability expertise at the store and distribution centre level by:

- Increasing employee awareness and knowledge of broad environmental issues as well as those specific to Woolworths.
- Empowering all employees to take appropriate actions to make a difference at work and at home.
- Equipping employees with the knowledge to influence their colleagues' behaviour and to answer questions from customers about Woolworths' sustainability commitments and initiatives.

Our first group of 170 Eco Ambassadors, comprising employees from all business divisions in Sydney metro regions, was selected earlier this year. We held two pilot workshops at our Sydney office in August 2007 and plan to conduct further workshops and training across all regions in Australia and New Zealand.

Working groups

We have established a number of working groups across the business to develop our strategies relating to energy and greenhouse targets, sustainable transport targets, waste, packaging and water. The members of these groups come from all areas of the business to establish the implications and practical considerations behind the commitments and targets described in our sustainability strategy.

These groups will continue to be involved as we develop implementation plans and evaluation tools to bring our strategy to life.

Our sustainability priorities

Over the next 16 pages we profile our key areas of focus to improve environmental sustainability for Woolworths. For each of our focus areas – climate change, water, sourcing, packaging, waste and Green Stores – we give an overview of how this issue impacts on Woolworths, our current situation and baseline performance, challenges and opportunities and the way forward, including our commitments and targets. We also provide examples of some of the actions we are already taking to minimise the environmental impacts of our business.

The measurement of our environmental impact is a complex process. One of the major considerations is the definition of scope. For example, when assessing the carbon emissions associated with food transport, where do we draw the line? Do we count emissions generated by the journey from farm to market, from market to distribution centre, from distribution centre to store and from store to home? Do we set the boundary even wider? There is no common view on the appropriate boundary to draw.

In determining scope for this issue and others, we have decided for the moment to focus on those areas where our actions have the greatest direct impact. This approach has been supplemented with indirect impacts where possible, within the limitations of available data and the extent of our potential influence. Consumer preference and purchasing behaviour is determined by a range of factors, most of which are outside our direct control.

We have identified the following six issues as most relevant to our business operations. These issues are in line with the key priority areas identified by other global retailers in their sustainability or CSR reports.

Priority issues for Woolworths Limited

- Climate change:
 - Use of energy and greenhouse gas emissions.
 - Use of fuel and associated greenhouse gas and other emissions in our distribution network (trucks) and our company cars/business travel.
- Direct use of water and the effect of drought.
- Sourcing of our private label products and ingredients as well as other products and services.
- Packaging including consumer packaging in our private label products and distribution packaging.
- Waste generation from all our stores.
- Store development (design, construction, equipment and materials specification).

We are well aware that this is not an exhaustive list of issues and that our environmental impact and footprint extends well beyond resources directly used to operate our stores and transport goods. However, it is our responsibility to first address our immediate and direct environmental impacts before influencing those of our suppliers. This philosophy has underpinned our boundary determination in focusing on issues we directly control or have significant influence on so we can implement improvements faster and more effectively.

The above issues have been determined based on their relevance to our business and prioritised based on the following criteria of risk:

- Materiality/significance.
- Cost to business.
- Impact on business continuity.
- Compliance.
- Reputation.

The matrix opposite details our prioritisation analysis.

Our sustainability strategy in the context of corporate responsibility

This document sets out our sustainability strategy in the medium term. Given the importance of environmental issues to our business, and the feedback we are receiving from stakeholders, the focus is weighted towards environmental sustainability. Our commitments, policies and performance for overall corporate responsibility are detailed in our Corporate Responsibility Report available on our website at www.woolworths.com.au.

However, we recognise that in further developing our approach we need to seamlessly integrate environmental issues with the work that we are already doing around the economic and social impacts of our business. These areas are all interrelated, as shown in the figure on the opposite page, and making changes to one always impacts on the others. How we plan and manage this integration will be the focus of our business going forward.

So our sustainability strategy details the environmental commitments we are making, the measures we will use to assess our performance and the targets we aim to achieve.

Simply put, our aim is to make sure that Woolworths remains a company that people will want to invest in, work for, and do business with well into the future.

OUR CORPORATE RESPONSIBILITY MODEL



PRIORITISATION OF ENVIRONMENTAL SUSTAINABILITY ISSUES

Issues	Materiality/ significance	Immediate and direct cost to business	Impact on business continuity	Compliance (current and future regulation potential)	Impact on reputation (public opinion/media coverage)	Priority
Climate change:						
 Use of energy and greenhouse gas emissions. 						1
 Use of fuel and associated greenhouse gas and other emissions in our distribution network (trucks) and our company cars/business travel. 						
Direct use of water and the effect of drought.		•				2
Sourcing of our private label products and ingredients as well as other products and services.			•	•		3
Packaging – including consumer packaging in our private label products and distribution packaging.			•	•	•	4
Waste generation from all our stores.			•		•	5
Store development (design, construction, equipment and materials specification).					•	6

● High ■ Medium • Low

Climate change



Climate change and its impact on fresh food production is the most critical environmental issue facing Woolworths and the sustainability of our business.

Australians have become all too aware in recent years of the devastating effects of drought and severe weather events, such as Cyclone Larry, and their impact on the availability and pricing of staple food items. The business case for minimising our carbon footprint, and through that reducing our contribution to global warming, is compelling.

A number of regulatory and political factors are also shaping the climate change landscape including requirements for public disclosure of emissions, the implementation of an Australian Emissions Trading Scheme and increased public awareness following the Stern Report.

Retail is an energy-intensive sector, using large quantities of electricity for refrigeration, lighting and temperature control in stores and fuel for transportation and distribution. As Australia's largest food retailer we operate around 3,000 stores and support sites across Australia and New Zealand, including around 947 supermarkets, and our delivery vehicles travel millions of kilometres each year. Woolworths is also one of Australia's largest non-manufacturing energy users and our operations account for around 0.66 percent of Australia's total greenhouse emissions¹.

Supermarkets contribute around 75 percent of our carbon emissions, with BIG W, consumer electronics, hotels, liquor, logistics and corporate making up the other 25 percent.

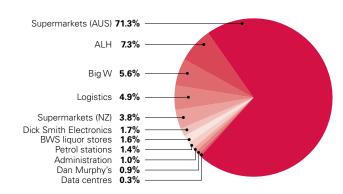
We are serious about minimising our carbon footprint. During 2007 we increased by 152 the number of stores we operate. We are planning to open many more stores in the future, so maintaining a business as usual approach to energy use is not an option.

Electricity and fuel costs are rising and the advent of carbon pricing in the near future will add significantly to these costs, so there is a strong economic case to find ways to reduce our electricity and fuel use and support the development of renewable energy and alternative fuels.

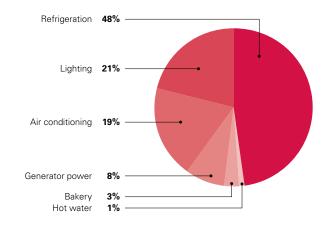
Minimising our carbon footprint is integral to business growth in that it will ultimately strengthen our ability to continue supplying low price fresh produce to our customers. By using electricity and fuel more efficiently, investigating alternative energy and fuel sources, minimising the waste we generate and disposing of what we do generate responsibly, we can not only reduce our impact on the environment but also provide a better service to customers and deliver a healthier financial return.

¹ Calculation based on Woolworths' total emissions of 3.7 Mt for 2006 and Australia's total greenhouse emissions for 2005 of 560 Mt CO_{2-e} (source: Australian Greenhouse Office).

2006 CO_{2-e} EMISSIONS BY BUSINESS DIVISION



2006 CO_{2-e} EMISSIONS BY END USE



Where we are now

Woolworths' greenhouse emissions for the 2006 calendar year² were approximately 3.7 million tonnes of CO_{2-e} (carbon dioxide equivalent) including:

- Electricity used in our stores, offices and distribution centres (approximately 2.6 Mt CO_{2-e}).
- Leakage of refrigerant gas from supermarket systems (approximately 610 kt CO₂₋)³.
- Fuel used for transport, distribution, company fleet and employee business travel (approximately 410 kt CO_{2-e}).
- Waste to landfill (approximately 160 kt CO_{2-e}).

More detailed information on our carbon emissions is available for download in our report on the Carbon Disclosure Project website at www.cdproject.net.

We estimate that the actual amount of emissions is probably closer to 4 Mt as there are some areas where we were unable to obtain accurate data. Namely, the 3.7 Mt figure does not include transport logistics for New Zealand operations, the ALH Group, rail freight within Australia or shipping. Similarly, information on waste to landfill was only available for eastern seaboard states and New Zealand. We are implementing systems to obtain more accurate and complete information.

Approximately 2.6 Mt of our $\rm CO_{2-e}$ emissions were due to electricity consumption. The breakdown of electricity use can be seen in the two figures to the left.

Clearly refrigeration, lighting and air conditioning are areas where improvements can make the biggest difference.

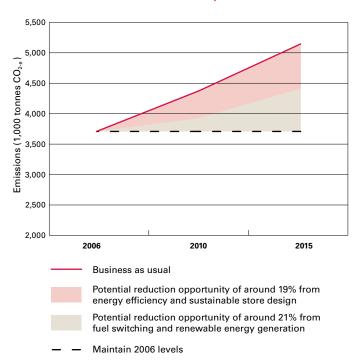
Public scrutiny of corporate environmental performance is set to increase with new legislation coming into force in coming years. Under the Energy Efficiency Opportunities Act 2006 we will be required to publicly report by December 2007 on our energy efficiency opportunities and initiatives undertaken. National Greenhouse and Energy Reporting will also be required from July 2008, and Woolworths is already a voluntary participant in the Carbon Disclosure Project.

In addition, a national carbon emissions trading system will commence in Australia in 2011; companies who take early action stand to benefit.

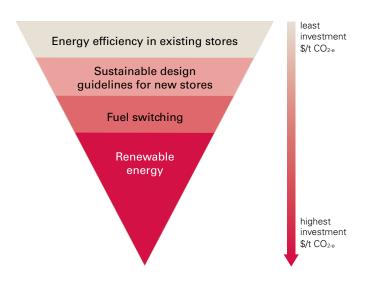
² A calendar year was used instead of financial year to account for the timing of the purchase of the hotels business ALH Group and enable a whole year of data to be collected.

³ Refrigerant gas losses occur through leaks in pipe connections, for example.

TOTAL GROUP CO2-e EMISSIONS (PROJECTED)



ENERGY-SAVING OPPORTUNITIES



Challenges and opportunities

Energy

The cost of electricity is rising and the total amount of electricity that we use is likely to increase as we continue to open new stores. Our projections show that by 2015 our electricity costs are likely to double and our $\mathrm{CO}_{2\text{-e}}$ emissions are likely to increase by around 40 percent if we don't take major steps to make our operations more energy efficient.

We aim to maintain our overall $\mathrm{CO}_{2\text{-e}}$ emissions at 2006 levels in 2015 even though we plan to grow the business significantly during that period. In effect, this means we're committing to a reduction of around 40 percent on business as usual emissions levels (see the figure at left).

We have investigated the emission reduction opportunities that exist for Woolworths including energy efficiency in existing stores, design guidelines for new stores, alternative fuel sources and renewable energy generation.

By analysing the costs and benefits for these options we have developed a hierarchy of opportunities that is shown in the figure below left. The action at the top of the diagram – energy efficiency in existing stores – requires the least investment per tonne of ${\rm CO}_{2\text{-e}}$ saved. At the bottom of the diagram, renewable energy generation or purchase requires the highest investment. This analysis has helped us to prioritise the most cost-effective actions that we can take to reduce our carbon footprint.

Our projections show that we can reduce our emissions by around 19 percent through energy efficiencies in existing stores and sustainable design guidelines for new stores, and a further 21 percent through switching from electricity to natural gas where it is available, cogeneration and renewable generation.

We have investigated the possibility of aiming for carbon neutrality through efficiencies plus offsetting, however, at this point in time there are limitations for a company as large as Woolworths, namely the availability of carbon credits and cost.

Energy efficiency in existing stores

Supermarkets are by far the largest contributor to electricity use, accounting for 75 percent of our carbon emissions. The most cost-effective way for us to reduce electricity use is to achieve efficiencies in existing stores. We will achieve this by:

- Increasing staff awareness and driving behaviour change such as switching off lights, air conditioning units and exhaust fans when not in use.
- Operations and maintenance such as recommissioning freezer and cooler temperature set points, optimising air conditioning controls and improved systems for lighting control.
- Technology improvements such as installation of automated after-hours blinds on open refrigeration cabinets, lighting, air conditioning and fridge door heater controls and lighting substitutions.

Biodiesel trial

Our Victorian truck fleet travels over 12 million kilometres per year, consuming around six million litres of diesel and generating 18 kt of CO_{2-e} emissions¹. From May to August 2007 we conducted a trial including four prime movers and one rigid vehicle to investigate the use of biodiesel and assess its impacts on emissions and vehicle performance. We also wanted to gain an understanding of the economics of using biodiesel blends and issues around sourcing, availability and quality of supply.

The trial was conducted in two stages with testing before and during the program to establish accurate benchmarks and results.

Stage one used a 95 percent diesel and 5 percent biofuel mix (B5) and stage two used an 80 percent diesel and 20 percent biofuel mix (B20).

Fuel for the trial was provided by a supplier who was able to provide fuel source certification and commitment to using Australian grown/sourced sustainable energy sources. Tests were conducted to simulate 'real world' driving conditions as well as a static test.

Based on the success of this trial we are planning to roll out the use of the B20 biodiesel to our entire Victorian truck fleet. We anticipate the savings in carbon emissions will be in the order of 11,500 tonnes per annum.

¹ Calculation based on emissions factor for diesel from Australian Greenhouse Office Factors and Methods Workbook, Department of Environment and Heritage, December 2006.



Sustainable design guidelines for new stores

New stores are typically larger users of energy than existing stores due to increased use of refrigeration and larger store size. Growing consumer preference for semi-prepared and pre-prepared food items, such as salads and frozen meals, has driven this.

Decisions that are made now in relation to design and fit out for refrigeration, lighting and air conditioning will be in place on average for seven to ten years, so it is vital to make sustainable choices. The Green Stores section on page 26 sets out the initiatives we are implementing in our new stores.

Fuel substitution and renewable energy

Other options that we are investigating include switching from electricity to natural gas where available. Gas can operate on-site generators, heat pumps for air conditioning, gas fired ovens and hot water systems.

We are also investigating on-site generation of renewable energy through wind or solar power at appropriate sites, and investment in renewable energy technology. However, both gas and renewable energy options have many limitations including cost, availability of technology and site restrictions and require further investigation.

Transport

Improving the design of our fleet and maximising vehicle space utilisation are two of the simplest ways of reducing the environmental impacts of transport. We aim to achieve 25 percent reduction in CO_{2-} emissions per carton delivered by 2012 through a combination of the following measures:

- Alternate fuels (13 percent).
- Vehicle design (8 percent).
- Reducing distance travelled through improved efficiency (4 percent).

We own our Victorian delivery fleet and have recently conducted a successful biodiesel trial for those vehicles. Based on the results of the trial we plan to roll out the use of a biodiesel fuel blend for the entire Victorian fleet by 2012.

Third-party road carriers, shipping and airfreight operators undertake the majority of our transport and logistics. We have already been able to reduce the number of delivery trucks being used in our business through more efficient planning and backfilling, and our logistics planning is constantly reviewed to maximise efficiency and minimise movement of empty trucks. Our priority is to work with our third party carriers to establish accurate baseline information and develop future actions to minimise environmental impacts.

Our corporate fleet includes 2,700 cars leased in Australia and 400 owned in New Zealand. We have established a working group to investigate the cost and environmental impact of continuing to use unleaded petrol compared with alternative fuels such as LPG, diesel and hybrid vehicles. We are aiming to reduce the CO_{2-e} emissions from our corporate fleet by up to 30 percent by 2010 by using a larger proportion of smaller cars, some hybrid cars and diesel and LPG fuels. We have issued a tender including these criteria and we will make a decision by the end of 2007. The new fleet will be ordered in January 2008.

Petrol business

In 2006–2007, we had 371 petrol sites in Australia directly controlled by Woolworths (not including Caltex/Woolworths sites controlled by Caltex). Our sales breakup by type of fuel was 82 percent petrol, 9 percent diesel and 9 percent LPG.

We have 1,025 diesel hoses and 64 biodiesel hoses nationally as at 30 June 2007. Only five of our sites do not have any diesel hoses. Most sites have two diesel hoses and we aim to increase this to four at new sites. We aim to have an additional 260 diesel hoses by 2010 and another 400 by 2015.

We have a commitment to have 35 sites with E10 (10 percent ethanol blend) by the end of calendar year 2007. So far we have 32 sites with E10 operating and another eight being converted. Our E10 sites are in NSW and Queensland at this stage.

Transport CO_{2-e} reduction targets

Reducing kms travelled Vehicle design Alternate fuels through efficiency >8% reduction >13% reduction >4% reduction Aerodynamic trailers Reduction in delivery frequency ING 2% reduction 2% reduction 3% reduction (dependent on fleet uptake) Aerodynamic prime movers Improved time windows 2% reduction 2% reduction **Biodiesel** 10% reduction if using a B20 blend (dependent on fleet uptake) Euro 4 & 5 engines in Maximising vehicle utilisation our prime movers 2% reduction Alignment of equipment Auxiliary power units to freight task 1% reduction Heavy hybrid vehicles 1% reduction



Project Refresh

Project Refresh commenced in 1999 with the aim of delivering ongoing efficiency benefits to Woolworths through end-to-end supply chain improvements. The project has so far delivered cumulative savings of around \$7.3 billion through initiatives such as state-of-the-art stock, warehouse and transport management systems and reducing the number of supermarket distribution centres from 31 to nine regional distribution centres and two national distribution centres.

Cost savings are not the only benefits achieved by Project Refresh. Energy efficiencies that we have achieved through Project Refresh in NSW have allowed us to create tradable NSW Greenhouse Abatement Certificates (NGACs) as part of the NSW Greenhouse Gas Abatement Scheme that has been in place since the beginning of 2003. One NGAC is equivalent to one tonne of CO_{2-e} that would otherwise have been released into the atmosphere as a result of electricity generation.

Through the automated energy management systems that we have installed in all supermarkets to control after hours lighting and reduce energy use we have been able to reduce our CO_{2-e} emissions by 34,735 tonnes since 2003, creating 34,735 NGACs. Our projections show that these energy efficiency measures will continue to create around 16,978 NGACs per year until 2011.

Our way forward

Commitments

- All new stores from September 2008 will be Green Stores using energy efficient building guidelines, with the Rouse Hill store as the benchmark.
- Establish accurate baseline data in 2007–2008 for all modes of transport.
- Establish a forum with major transport suppliers to develop a low carbon strategy for our thirdparty distribution network.
- Increase the number of diesel hoses at Woolworths service stations by 660 by 2015.
- Conduct a comprehensive study on biodiesel availability in Australia including quality, vehicle compatibility and cost impacts.
- Provide financial support to CSIRO Future Fuels Forum on alternative fuel research.
- Trial the use of hybrid powered trucks for home deliveries.

Targets

- Overall 19 percent CO_{2-e} reduction by 2010 and 40 percent CO_{2-e} reduction by 2015 (on projected growth levels) to maintain 2006 levels.
- 25 percent reduction of CO_{2-e} emissions per carton delivered by Woolworths-owned trucks by 2012.
- 30 percent reduction on 2006 levels in CO_{2-e} emissions from company car fleet of 3,100 cars (dependent on mix of car size and fuels chosen) by 2010. However, the fleet is likely to increase in future as the business grows.

Water

Water is arguably our most important natural resource. Whilst, in comparison to other industries, retail is not a large direct user of water, our fresh food suppliers and many others rely heavily on the availability of water.

A secure water supply is critical to the ongoing availability of fresh food in Australia. With around 97 percent of the fresh fruit and vegetables sold in our supermarkets sourced domestically, the continued sustainability of our business is directly tied to the livelihood of local growers and farmers. Therefore, we have an obligation not to waste water.

The impact of Australia's drought on the supply of fresh food has been severe in recent years and this situation is likely to continue well into the future. In the past 12 months, we have seen rising prices for dairy and grain-based products due to drought and water shortages, and the supply of many fruits and vegetables has also been affected.

There is no simple solution to the water crisis. Governments at all levels have policies in place to minimise water use and supplement supply through recycling and other measures. We believe that businesses also have a responsibility to implement sustainable practices that improve their management of the water cycle.

Where we are now

Estimated water use in our Australian supermarkets was around 2.2 GL for the 2006–2007 year. This volume is not the actual metered usage of all stores but it has been estimated from stand-alone stores, which are metered.

Some of our stores in shopping centres are not directly metered and the water rates form part of the total lease rates. We also do not have data for our hotels (ALH Group) and for New Zealand supermarkets. In the next 12 months, we will estimate water usage data for these two groups as well.

Challenges and opportunities

Drought assistance

In January 2007, we held a National Drought Action Day to raise money for Australian farming families affected by drought. With the support of customers and staff we raised \$4.7 million in donations to the Country Women's Association. Two thirds was distributed to families needing assistance with basic household expenses and the remaining \$1.56 million will help to fund sustainable farming programs through Landcare, including:

- Six major regional projects in South East Queensland, Liverpool Plains (NSW), Murrumbidgee (NSW), Northern agricultural catchments (Western Australia), South Australia and Tasmania.
- 25 smaller projects clustered around the major regional projects listed above.
- 20 farmer innovation projects awarded through a grants application process.



South East Queensland Water Wise project

Earlier this year we implemented water saving initiatives in 105 of our supermarkets in South East Queensland. The project was completed in August 2007.

The South East Queensland Water Wise project involved an investment of \$115,000 at an average cost of \$1,046 per store. It included:

- Installing 1,744 flow restrictors with each device reducing flows from 15 L/min to 6 L/min.
- Installing 327 water saving ultra-rinse guns with each gun on average reducing flows from 12 L/min to 4 L/min.
- Adjusting 504 dual flush toilets to reduce flush volume.
- Adjusting 55 single flush toilets to reduce flush volume from 10 L/flush to 6 L/flush.
- Adjusting 60 urinals to reduce flush volume from 6 L/flush to 4 L/flush.

The water saving from each ultra-rinse gun is estimated at 100,000 L per year, which would translate to an estimated total saving of 32.7 ML per year for the South East Queensland Water Wise project. We have committed to roll out the Water Wise project to all our Australian supermarkets at a cost of \$975,000, saving around 200 ML of water per year.



Roll out the Water Wise project nationally for all our supermarkets.

Target

Our way forward

Commitments

Reduce water use by at least 200 million litres a year by 2010.

Develop a more complete baseline of water usage.

Every Drop Counts program

Woolworths has recently agreed with Sydney Water to participate in the Every Drop Counts Business Program to drive sustainable water use and reduce water consumption and costs in our operations across the Sydney Metropolitan Area. The program is based on a self-diagnostic process that we can use to evaluate our performance in water management and deliver improvements in efficient use of water.

Sydney Water will provide tools, guidance and technical assistance to identify critical actions that we can undertake to reduce our water use. We will work with Sydney Water to undertake audits of water use in our stores and identify potential water saving measures.

In addition, there is an opportunity for Woolworths to work with Sydney Water on a refrigeration optimisation study for commercial supermarkets in relation to alternative water sources for spray-assisted coolers.

We have committed to implementing the improvements identified through this program as far as practicable across our operations, Australia-wide.

Water saving initiatives

We have implemented a number of water saving initiatives at our sites. At our main support office located at Norwest Business Park in Sydney, which is home to around 3,350 staff, we have installed a one million litre capacity rainwater tank to collect stormwater for landscaping irrigation, toilet flushing, car washing and washing of concreted areas.



Sourcing

As a retailer, developing and maintaining sustainable means of sourcing products to meet our customers' changing needs is a key issue for us on both a domestic and international level. Our relationships with suppliers are critical to our business and we strive to develop genuine two-way partnerships with them that deliver mutual benefits whilst providing quality, affordable products to our customers.

Globalisation and technological advances have contributed to ever-increasing levels of availability and choice of products coming into the Australian market.

It is important for Woolworths to understand the choices that are made in the manufacture and supply of those products, and the environmental and social impacts of those choices. We have a responsibility to ensure that the items on our store shelves are produced in a manner that respects and upholds the human rights of workers, and that the environmental impacts of production are managed in line with relevant Australian and international standards.

Where we are now

We actively support the Australian growers and farmers who supply 97 percent of our fresh fruit and vegetables. We continue to work with local growers to develop new crops, farming techniques and product innovations. We remain committed to our long-standing policy of giving preference to Australian vendors who can meet our supply requirements.

Our Hong Kong buying office, which is responsible for global purchasing, has well-established policies and practices, however, not all of our sourcing is presently conducted through the Hong Kong office and we do some of our buying through agents who do not always apply the same rigour to sourcing decisions.

When undertaking ethical compliance and quality management system audits of suppliers' factories, the Hong Kong office assesses compliance against criteria related to environmental protection, safety, hygiene, child labour, discrimination, working hours, wages and benefits. If any of these areas is found to be unsatisfactory the auditors can recommend corrective actions and the time within which they should be completed in consultation with factory management.

Challenges and opportunities

Domestic sourcing

A high percentage of our private label products is manufactured or grown in Australia and it is our intention to maintain this. Around 90 percent of our Homebrand range is sourced in Australia. For our private label products we offer preferential trading terms to local vendors and will always try to source domestically wherever possible.

Global sourcing

There are many issues to consider when sourcing products internationally. Labour practices and environmental standards in other countries can be very different to the accepted standards in Australia. Issues such as safety, health, working hours, child labour, wages and the environmental impacts of production all need to be taken into account when making decisions about purchasing.

Our direct buying office in Hong Kong is gradually taking over responsibility for all international purchasing. With their increase in size and capacity in recent years, they are now well placed to audit and monitor levels of factory compliance and product quality for our global supply chain.

Independent auditors conduct random factory audits on behalf of Woolworths on issues including environmental standards, employee conditions, freedom of association and health. Nevertheless, we acknowledge we have work to do to develop more rigorous processes and protocols for the consistent management of these issues across all our business lines.

There are a number of high-risk areas in our global supply chain such as forestry products and palm oil. Managing these issues involves building the capacity of our staff to ensure that they are able to understand the complex issues and types of third party verification required from suppliers to help them make decisions about purchasing.

Palm oil

Twelve months ago we adopted a policy to ban the use of palm oil in our private label products for both nutritional and environmental reasons. Palm oil contains about 50 percent saturated fats and is inferior in quality to other vegetable oils. Production of palm oil is known to contribute to destruction of habitat and biodiversity, and some of our customers had contacted us to express their concerns about this issue.

We have been able to exclude palm oil from our Select brand products and are in the process of phasing it out from all Homebrand products and in-store baked goods. This is challenging because in-store baked goods may contain margarine and other ingredients supplied by third parties. Our private label team is working to understand and overcome these issues.

Environmental certification of paper products

In August 2007, it was brought to our attention that some of the tissue products sold under our private label displayed potentially misleading claims on their packaging. The products in question were labelled with a 'sustainable forest fibre logo' and the packaging stated that the products came 'from a certified environmentally managed company that is environmentally, socially and economically responsible', as claimed by our supplier who had presented documentation on fibre flow and composition claiming third party forestry certification. We immediately withdrew the products from sale and commenced investigation with the supplier and our independent auditor.

On closer investigation we learnt that the third party audits had verified ISO 14001 certification of the manufacturer and legal origin of the pulp but that the scope of this certification did not include sourcing of the fibre or the forestry certification.

The products have now been returned to store shelves with these claims removed.

We need to have confidence that suppliers of our private label products apply rigorous processes and that any claims made can be verified. Issues such as this have the potential not only to damage our reputation, but could also lead consumers to feel suspicious about all products that are



marketed as 'green'. Our customers should be able to trust the labelling on our products, and we acknowledge that we have work to do in order regain trust in this regard.

We are committed to developing and implementing consistent processes to ensure that this situation is not repeated. To this end we have commenced a review of our supply chain for private label products. We are also developing policies and procedures that ensure rigorous checks and balances for our suppliers, and will be working with non-government organisations and supply chain experts to provide independent advice and auditing of our processes.

Our way forward

Commitments

- We will work with auditors and non-government organisation partners to identify the gaps in our processes, understand high-risk areas and develop consistent sustainable buying and sourcing policies and procedures that can be implemented across all business divisions.
 Our aim is to identify gaps and develop an implementation plan within 12 months.
- We will conduct tailored training and capacity building for our buyers to help them understand issues and types of third party certification required from suppliers, so they can more effectively manage issues around ethical and sustainable sourcing.

Packaging

Retailers play a key role in the packaging supply chain and have the ability to drive positive and measurable change in this area. At Woolworths, with our dual role as both a retailer and brand owner, we are committed to improvement by finding cost-effective ways to reduce packaging and minimise waste from private label products, whilst continuing to deliver quality products to customers at low prices.

Woolworths owns and distributes several thousand private label products including:

- Bakery.
- Fresh (meat, deli, fruit and vegetables).
- Homebrand (around 830 products).
- Select (around 990 premium products).
- Free From, Naytura and Organics (health food/organic range).
- Woolworths dairy.
- Liquor.
- General merchandise in supermarkets, BIG W and Dick Smith Electronics.

Where we are now

As a signatory to the National Packaging Covenant we have committed to working to achieving the Covenant objectives. Our 2007–2010 National Packaging Covenant Action Plan, which can be viewed on the National Packaging Covenant's website at www.packagingcovenant.org.au, outlines the actions that we have already carried out to minimise packaging waste and sets goals for the next three years.

Initiatives already undertaken include:

- Reduction in HDPE (high density polyethylene) plastic bag use and implementation of 30 percent recycled content in Woolworths' supermarket bags and 15 percent recycled content in BIG W bags to help close the recycling loop.
- Plastic checkout bag recycling facilities available at all supermarkets.
- Introduction of a reusable bag range including green enviro bags, blue chiller bags and wine bags. Since August 2005 we have sold nearly eight million reusable bags.
- Use of roll cages to reduce the need for pallets and plastic shrink-wrap.
- Introduction of reusable plastic crates that carry fresh produce from the supplier to the supermarket shelf and eliminate the requirement for waxed cardboard cartons, string nets, and especially styrofoam plastic boxes. There are currently 1.7 million crates in the pool with around half a million issued through our produce distribution centres each week in Victoria, NSW, Queensland and Western Australia, with South Australia and Tasmania coming on line in late 2008. The reusable crates eliminate the need for 26 million cardboard cartons each year.

Woolworths is in the process of developing performance benchmarks and a base case scenario for packaging of our private label products. We will use this information to develop a consumer packaging strategy for our private brands, including key performance indicators and targets.

We have commissioned the Sustainable Packaging Alliance to undertake a review of the packaging of private brand products in two stages.

Stage one involves an audit of all packaged products in the private label range to help us understand current performance benchmarks and issues such as the type and quantity of packaging materials used, how much of this is recyclable, packaging efficiency and over-packaging.

Stage two involves benchmarking and developing key performance indicators and efficiency targets to help us formulate a consumer packaging strategy for private labels.

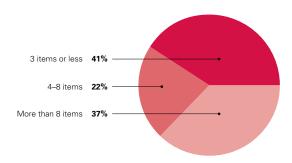
Challenges and opportunities

Plastic bags

There are over 30,000 service cashiers employed throughout our stores, many of whom work part-time or on a casual basis. A key challenge is ensuring that these employees are aware of and engaged in initiatives to minimise the use of plastic bags at checkouts.

Our 'Fill the bag, not the environment' training program has been implemented to raise employee awareness of plastic bag stock levels and recycling initiatives within stores.

CUSTOMER TRANSACTIONS IN SUPERMARKETS (AUSTRALIA)



Around 40 percent of supermarket transactions are for three items or less. For these transactions we do not automatically issue a bag unless the customer requests it. 22 percent of transactions are for between four and eight items, possibly indicating unplanned shopping where the customer hasn't brought reusable bags with them.

Most customers are aware of plastic bag minimisation efforts, as can be seen by strong initial reductions in plastic bag use and sales of plastic bag alternatives.

We monitor the number of items per bag by dividing the number of items sold by the number of bags issued to stores in the same month. An increase in the number of items per bag reflects reduction in use of plastic bags. In 2002, this indicator was 3.5 items per bag and this has improved to around 5.5. However, our statistics show that the reductions

have levelled off over the last 18 months and that plastic bag use is a deeply ingrained habit for most customers.

Spontaneous purchases still occur and people like to use plastic bags for other purposes in the home. There is much work to be done to reinforce the importance of reusable bags so that always remembering to use them becomes second nature.

Supply chain

We can specify sustainable packaging guidelines for suppliers of our private label goods, however, there are cost implications for sustainable packaging choices and we need to consider these when making decisions to ensure that our products remain competitive in the market. There are also limits to how far we can influence packaging of other suppliers' products. Nevertheless, new product review committees review all new product lines, and packaging is a major consideration in the review process. In future we plan to hold a forum with major suppliers to review packaging specifications and ensure that sustainability considerations are integrated into decision-making.

One of the most effective means that we can use to drive change is to become more involved in the National Packaging Covenant Roundtable and engage with key players in the packaging debate.

Mobile roll cages



Each year Woolworths uses wooden pallets and plastic shrink-wrap to distribute stock throughout our stores. The shrink-wrap is not recyclable, consuming non-renewable resources and filling up landfills.

We're progressively introducing wheeled roll cages to replace pallets and shrink-wrap. These roll cages are stackable carriages filled with cartons of stock that can be used in warehouses, transported on trucks, and wheeled directly onto store floors to fill shelves.

We have commissioned 104,000 roll cages so far. Each roll cage replaces 2.125 pallets and about 23 metres of shrink-wrap each time it is used. In 2006–2007 we dispatched 2.3 million roll cages, saving 1.1 million pallets and 12,100 km of shrink-wrap.

The roll cage project has been implemented in 330 stores. Further rollout of roll cages is currently on hold as there are compatibility issues with our new fully automated distribution centres. We are working on resolving the issues.

Our way forward

Commitments

- Establish a supplier forum to work together on more sustainable packaging.
- Establish more comprehensive baseline data for packaging of private label products including information on materials consumption, local/ imported origin, recycled content and recyclability.
- Review private label procurement policy and supplier guidelines to incorporate:
 - Standardised reporting and data collection.
 - Compliance with the Environmental Code of Practice for Packaging (ECOPP).
 - Package labelling in line with ISO 14021 standard for environmental claims.
 - Supplier training to assist them meeting policy requirements.
- Trial the use of the Packaging Impact Quick Evaluation Tool (PIQET) for private label products.
- Conduct an audit of compliance with ECOPP and ISO 14021 for private label products.
- Report annually to the National Packaging Covenant and in Woolworths Corporate Responsibility Report.

Targets

- Implement revised private label procurement policy and supplier guidelines by 2008.
- Provide training to 50 suppliers by 2008.
- Use PIQET to evaluate 20 private label products by 2010.
- Continue to replace waxed cardboard and foam boxes with reusable plastic crates where possible (increase from 1.7 million to 3.4 million).

Waste

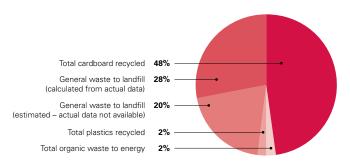
Reducing the amount of waste that is sent to landfill is not only better for the environment but is also more cost-effective.

When waste breaks down in landfills over time one of the by-products is biogas. Biogas contains around 50 percent methane, a potent greenhouse gas. Some of this gas can be captured to generate electricity but a significant amount escapes through the cap of the landfill and into the atmosphere where it contributes to global warming. As waste continues to break down, landfills can go on producing methane for decades after they have stopped receiving waste.

In recent years, technologies have been developed that divert waste from landfill and minimise environmental impacts by treating organic wastes, such as food, and processing them into useful resources such as compost, fertiliser, green electricity and treated water. Many of these technologies are designed to capture up to 100 percent of the biogas produced for electricity generation, preventing it from being released into the atmosphere.

The cost of landfill disposal has increased considerably over the last two to three years and will continue to do so in future due to rises in government levies, transport and disposal costs. For example, in the greater Sydney area each tonne of landfill waste currently attracts a levy of \$38.60 and this levy is set to nearly double over the next five years, making alternatives to landfill more cost-effective. Similar levies are starting to be introduced in other capital cities and regional areas by state governments.

GENERAL WASTE AND RECYCLED MATERIALS IN 2006



Where we are now

In 2006, Woolworths sent nearly 84,000 tonnes of waste to landfill in Australia's eastern seaboard states and New Zealand, generating around 160 kt of ${\rm CO_{2-e}}$ emissions. The total figure is probably closer to 140,000 tonnes of waste but we don't have actual tonnage data from most smaller or medium size waste contractors. Waste audits undertaken at a selection of our stores and distribution centres over the last year show that a large proportion of the waste that we send to landfill is organic material that could be used for another purpose. Around 56 percent of the waste from supermarkets and 28 percent from distribution centres (by weight) could be diverted to a beneficial end use.

In 2006, we recycled 147,189 tonnes of cardboard and 6,055 tonnes of plastic, however, there are still unacceptably high quantities of recyclable materials in the general waste stream including 10 percent plastic and 7 percent cardboard by weight for supermarkets, and 10 percent plastic and 21 percent cardboard for distribution centres.

The figure below left shows the breakdown of the waste we generate each year by weight.

Challenges and opportunities

General waste

We aim to eliminate organic waste from our general waste stream by 2015 subject to availability of appropriate facilities. At present, 53 of our Sydney stores send source separated food waste to the EarthPower facility in Sydney's West for processing into compost, fertiliser and green electricity. We plan to increase the number of Sydney stores using EarthPower and to investigate other similar facilities around Australia. However, at the present time the number of suitable facilities outside Sydney is very limited. Long lead-times are required for new facilities to be approved and constructed and they require a critical mass of input material and long-term contracts to be commercially viable. We will continue to investigate the feasibility of this option in consultation with the waste industry.

We are also focused on minimising the amount of recyclable plastics and cardboard materials in the general waste stream through education and awareness of recycling procedures in stores and distribution centres, reduction in plastic wrapping for transport and increased use of roll cages.

Electronic waste

Electronic waste or 'e-waste' is one of the most difficult issues facing the waste industry. With technological advances and falling prices, consumers are replacing major electronic appliances such as computers and televisions more frequently. These items are best kept out of landfill as they contain heavy metals and chemicals that can be harmful to the environment. At present there are few programs in place to responsibly dispose of e-waste.

We will investigate, in collaboration with councils and product manufacturers, how we can assist in the development of e-waste recycling services.

Hanger recycling

At our BIG W stores we gather plastic clothes hangers at the checkout for reuse or recycling. The hangers are collected in each capital city then sent to the manufacturer in China where they are sorted by type of hanger for repurchase. Those that are damaged are recycled to make new hangers.

In the 2006–2007 financial year we reused over 24 million hangers, representing 72 percent of hangers purchased. Since 1992 we have recycled or reused over 445 million hangers. We are encouraging our stores to increase return rates through rebate incentives and investigating signage to encourage customers to leave hangers in the store for reuse.

Our way forward

Commitments

- Identify organics recycling technologies similar to EarthPower for recycling source separated food waste from supermarkets outside Sydney and determine commercial feasibility.
- Implement a waste audit program for all stores and distribution centres.
- Continue phasing out polystyrene.
- Implement a staff education program to encourage greater recovery of plastic and cardboard.

Targets

- Increase the number of Sydney stores using EarthPower from 53 to 100 by 2010.
- Eliminate food waste from the general waste stream by 2015 (where receiving facilities are available).
- Reduce amount of plastic in the general waste stream to less than 1 percent by weight by 2010.
- Reduce amount of cardboard in the general waste stream to less than 1 percent by weight by 2010.



EarthPower

Source-separated food waste from 53 of our Sydney stores is sent to EarthPower, Australia's first regional food waste to energy facility located at Camelia in Sydney's West. EarthPower accepts solid and liquid food wastes such as fruit and vegetable waste, off-cuts such as leaves and stalks, and damaged or out of date food products. It uses a process called anaerobic digestion where the waste material is broken down by bacteria in a controlled environment.

This process produces biogas, which is used as fuel for engines to generate renewable electricity that is sold into the grid. The anaerobic digestion also produces a high-grade, odourless fertiliser granule that is then used in agriculture and horticulture.

Since November 2006, over 4,860 tonnes of organic waste from our supermarkets has been processed at EarthPower, generating 1,230 MWh or enough renewable energy to power around 145 houses.

Green Stores

Woolworths currently operates around 3,000 stores throughout Australia and New Zealand including 763 supermarkets in Australia and 184 in New Zealand. Supermarket operations are the most energy intensive of all our businesses due to refrigeration, which accounts for around 50 percent of the greenhouse gas emissions from our stores. Air conditioning and lighting are the other major consumers of electricity in supermarkets.

We plan to open more supermarkets over coming years, in order to meet growth in demand, but in an environmentally sustainable way. New supermarkets are generally larger than existing stores and use more refrigeration; therefore their energy requirements are higher. That is why we have invested in innovative technology solutions that will allow us to grow whilst reducing the environmental impacts of each store.

Where we are now

We have developed sustainable design guidelines that aim to minimise the environmental impacts of new supermarkets through the following measures:

- Energy efficient refrigeration systems.
- Greenhouse friendly refrigerants.
- Lighting technology and management improvements.
- Energy efficient air conditioning.
- Fuel substitutions (use of natural gas).
- Minimising water use.
- Reducing waste.
- Minimising use of harmful materials.

We opened our first Green Store implementing these practices at Rouse Hill this year and another is under construction at Victoria Harbour in Melbourne, with a further three in the planning stages at Geelong West in Victoria, Glenorie in NSW and Samford in Queensland. An additional store at Newstead in Queensland is under consideration. We are committed to ensuring that every new Woolworths supermarket is consistent with this approach.

The average energy use per square metre in our existing stores is 920 KWh/m₂. New stores with increased refrigeration have a higher energy demand of approximately 1,200 KWh/m₂ (based on current business as usual design standards). Our Green Stores aim to reduce business as usual energy use by an estimated 25 percent.

A new store with increased refrigeration installed would typically use around 1,200 KWh/ m_2 . Although our Rouse Hill store has more refrigeration than existing stores, the energy efficiency measures we have put in place are designed to deliver an estimated reduction of 25 percent in energy use. The store opened in October 2007, so actual energy use is not yet available.

Challenges and opportunities

Lighting

Existing stores typically use fluorescent tubes for all external signage. In Green Stores these will be replaced with light emitting diodes (LEDs), which use around 90 percent less electricity than conventional signage and have a longer life. LED lighting will also be used in glass door freezers. As LEDs generate light without producing a lot of heat, the refrigeration systems don't have to work as hard.

Lighting inside new stores will use T5 fluorescent technology that incorporates an automated energy management system. T5 lamps have the highest light output of any fluorescent lamp and can save up to 30 percent of the energy used by regular fluorescent lamps.

Refrigeration and air conditioning

We have investigated a number of technologies to reduce energy use and emissions from refrigeration and air conditioning systems and many of these innovations have been put into practice at our Rouse Hill supermarket. The case study on the next page provides details of these technologies and their benefits.

Design guidelines

The Green Building Council developed the Green Star rating scheme to evaluate the environmental design and performance of buildings. We plan to take an active role in the development of the shopping centre interiors rating tool that is currently planned.

We are also keen to support the development of an ecological footprint calculator for evaluation of supermarket interior fit-outs that could complement the current set of footprint calculators used by the Victorian Environment Protection Agency.

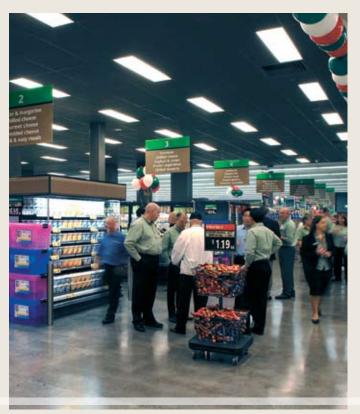
Our way forward

Commitments

- Build all new Woolworths supermarkets opening from September 2008 to conform to our sustainable design guidelines to minimise energy use and environmental impacts.
- Work with the Green Building Council to develop a star-rating tool for supermarket interiors.
- Engage with interested parties in the development of an ecological footprinting calculator for evaluation of supermarket interior design and fit-out.

Targets

- All stores opened after September 2008 will be Green Stores.
- Achieve 25 percent reduction in CO_{2-e} emissions for new sustainable store designs compared with business as usual designs.







Rouse Hill Green Store

Our first Green Store at Sydney's Rouse Hill, opened in 2007, brings together many innovations and sets a benchmark for the environmental performance of all our future store developments.

Rouse Hill is the first Woolworths supermarket to incorporate LED lighting in the glass door freezers, using around 70 percent less energy than conventional lighting. Internal store lighting uses T5 fluorescent technology incorporating an automated energy management system and representing industry best practice in lighting. Back of house lighting uses motion detectors so that the lights only turn on when they are needed.

One of the most important innovations in the Rouse Hill store is the cascade refrigeration system that replaces conventional refrigerants (while not ozone depleting they have very high global warming intensity) with carbon dioxide. This system produces around 25 percent less greenhouse gas emissions than standard systems. The refrigeration cases at Rouse Hill have a number of other energy efficient features including high-efficiency fans, low-heat glass doors and a heat reclaim system that collects waste heat from refrigeration and uses it within the store's air conditioning system.

Rouse Hill is also the first Woolworths supermarket to use automatic night blinds on upright refrigeration cases. These blinds close automatically after trading hours, trapping cool air in the refrigeration cases, reducing energy use by around 10 percent and reducing CO_{2-e} emissions by up to 100 tonnes per year.

The store's air conditioning system has an economy cycle and uses fresh outside air instead of mechanical cooling where possible. The chiller system uses an innovative water-cooling process. The central cooling tower uses recycled water and is estimated to be 50 percent more energy efficient than typical systems. The refrigerant has zero ozone depleting potential and produces around 25 percent less greenhouse emissions than average.

The store has been designed to use gas as an alternative to electricity for water heating, chicken cookers and the bakery oven. Gas produces around 40 percent less CO_{2-e} emissions than electricity.

Polished concrete flooring was used instead of the vinyl flooring laid over concrete typically used in supermarkets, minimising the overall environmental impact.

Implementation and reporting

Like any strategy, the proof is in the implementation. Our team is in the process of developing detailed implementation plans and performance indicators that will be rolled out across the company to help us meet the commitments set out in this document. We are excited to be able to get down to the business of making these changes a reality.

Our strategy will be reviewed every three years or earlier, if required, to ensure that we are addressing the key sustainability issues that are relevant to Woolworths and to capture new developments and their impacts. We will engage with our external stakeholders, including our suppliers and customers, government and non-government organisations, to seek their views. We are keen to share our experiences with others in the retail sector and, in turn, learn from them. Sustainability is simply about doing the right thing and, by doing so, driving improved environmental practices across our business and across the sector.

Reporting standards

Reporting publicly on our progress against these commitments through the Woolworths Corporate Responsibility Report ensures that we are accountable and transparent to all our stakeholders.

People reading our report should have confidence in the type of information that we are providing and its accuracy. That is why our report will be prepared in accordance with the Global Reporting Initiative (GRI) Sustainable Reporting Guidelines and will be externally verified.

Woolworths is keen to participate in the development of a GRI sector supplement for the retail sector to enable consistent reporting and better benchmarking.

We will continue our participation in the Carbon Disclosure Project and also aim to participate in internationally recognised benchmarking programs such as the Dow Jones Sustainability Index and the FTSE4Good.



Have your say

We are interested in your feedback about our strategy.

To ask a question or make a comment, email Group Sustainability Manager, Armineh Mardirossian at amardirossian@woolworths.com.au or call +612 8885 0000.

WOOLWORTHS LIMITED

