



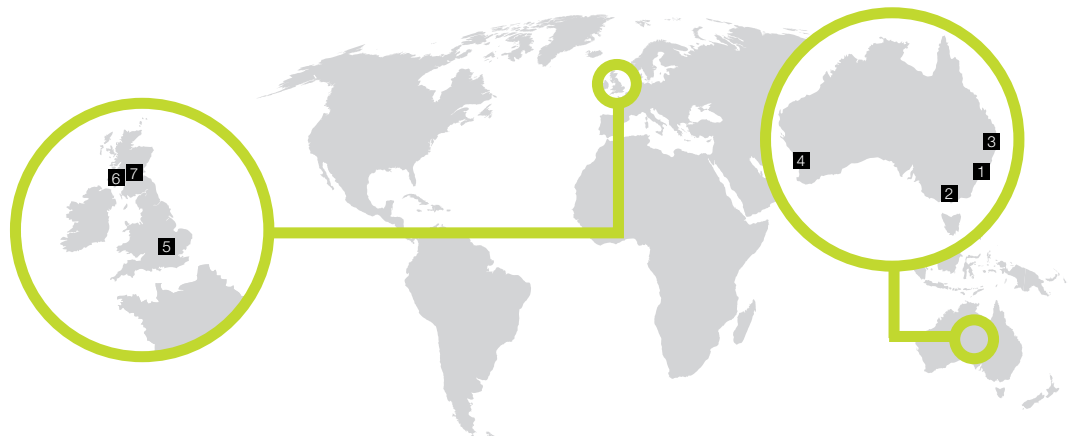
Stockland

# Corporate Responsibility & Sustainability

Carbon Disclosure Project 6 (2008)

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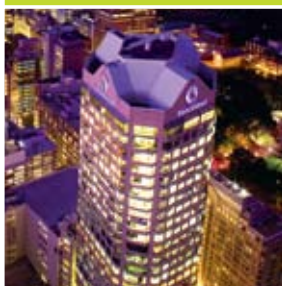


### > Where are we?

- 1 Sydney, Australia
- 2 Melbourne, Australia
- 3 Brisbane, Australia
- 4 Perth, Australia
- 5 London, United Kingdom
- 6 Glasgow, United Kingdom
- 7 Edinburgh, United Kingdom

## About Stockland

# One Stockland



Stockland is the largest diversified property group in Australia, with operations also in the United Kingdom.

We are active in retail, commercial and industrial property, as well as residential communities, apartments and retirement living classes.

As at June 30 2007, we had a market capitalisation of over A\$11 billion and assets valued in excess of A\$13 billion. We are a top 50 Australian Securities Exchange listed company (ASX:SGP) and have achieved 25 consecutive years of profit growth.

In 2007, in line with our strategy, we made two significant acquisitions: the UK property investment and development group Halladale and Australian Retirement Communities (ARC – Retirement Living). Stockland UK is now our platform for future growth in the UK and Europe.



30 June 2008

**Project Coordinator  
Carbon Disclosure Project 6**

**We are pleased to submit our response to the Carbon Disclosure Project (CDP6).**

Participation in CDP4 in 2005 was the start of a journey of voluntary disclosure of Stockland's environmental performance. Since then we have commenced the publication of an annual Corporate Responsibility and Sustainability report, addressing Stockland's wider sustainability efforts, achievements and challenges.

Over the past year we have witnessed significant change in Australia. On 3 December 2007, the Prime Minister of Australia ratified the Kyoto Protocol and the government is now working towards the development of an Emissions Trading Scheme. Large business, including Stockland, is now required to collect and report greenhouse gas emissions data as part of the National Greenhouse Emissions Reporting System.

Reporting on our greenhouse gas emissions and response to climate change helps drive efficiencies in our business and opens up opportunities. We are committed to staying ahead of the curve, addressing emerging risk associated with climate change, and responding to the growing interest of our customers and expectations of our wider community.

During 2007, as part of our Climate Change Action Plan, we embarked on a program to improve our carbon data management. In this CDP we are pleased to report emissions for all operating Australian office and retail sites that we own (or part own) and manage and for which we purchase electricity.

We are pleased to report that due to our energy efficiency programs our emissions intensities (tonnes CO<sub>2</sub>-e per m<sup>2</sup>) reduced during 2007 – by 15% for our office portfolio and by 7% for our retail portfolio. We are committed to continuing to reduce our emissions.

For queries regarding our submission, please contact our General Manager, Corporate Responsibility and Sustainability, Siobhan Toohill on +61 2 9035 2594.

A handwritten signature in black ink, appearing to read "Matt Quinn", written in a cursive style.

**Matthew Quinn**  
Managing Director

03

# Letter from the Managing Director

## About this Report

### About this Report

This report, for the year 1 January 2007 to 31 December 2007, covers our Australian operations:

- Retail
- Office
- Industrial
- Residential Communities
- Apartments
- Retirement Living

This report makes some reference to our UK operations.

In particular, we have actively collected and analysed data for retail and office assets owned in Australia – the principal sources of Stockland's scope 1 and 2 GHG emissions.

We have commenced putting systems in place to collect data from our Stockland UK operations. We expect to commence reporting UK data in CDP7 and in our FY08 Corporate Responsibility and Sustainability (CR&S) Report (due for publication in September 2008).

The content for this report has been shaped by our:

- CR&S Employee Committee: with responsibility for shaping and implementing Stockland's CR&S strategy
- CR&S Board Committee: providing guidance and governance on CR&S activities at Stockland
- Sustainability managers: located in our business units and in corporate positions. Our network of sustainability managers have responsibility for addressing risk and opportunities in relation to sustainability including leading programs within business units to reduce CO<sub>2</sub>-e emissions.



### Corporate Responsibility and Sustainability at Stockland

We recognise that doing the right thing as a property manager, owner and developer, through the eyes of our stakeholders, is about dealing with risk, seeking opportunities and creating long term value for our investors.

We define sustainable development in the widest sense, supporting the UN's Brundtland definition as

*"development that meets the needs of the present without compromising the ability of future generations to meet their own needs."*<sup>1</sup>

To bring our commitment to life, we have developed a comprehensive CR&S strategy, framed around a number of key themes:

- Understanding and engaging with our stakeholders – which includes:
  - Engaging with our people
  - Working towards common goals with our suppliers, partners, investors and customers
  - Strengthening our place in the wider community
- Taking care of the environment in which we operate – which includes:
  - Identifying and responding to risks and opportunities associated with climate change

In our published 2007 CR&S Report, our message from our Chairman and Managing Director states:

*"We define corporate responsibility as embracing a balance of stakeholder interests in a way that is consistent with long term economic prosperity.*

*Looking forward, we see climate change concerns reshaping regulatory and corporate behaviour. We recognise that we too need to take action.*

*Our Climate Change Action Plan currently in development, will define our improvement goals for the years ahead, including more extensive environmental reporting and setting greenhouse gas emission target reductions."*<sup>2</sup>

<sup>1</sup> Our Common Future, Brundtland Commission, UN World Commission on Environment and Development, Section 2II

<sup>2</sup> 2007 Corporate Responsibility and Sustainability Report, Stockland, p2-4

# 1

05

## Risks and opportunities



## 06 To identify strategic risks and opportunities and their implications

Stockland recognises that climate change presents significant risks to its future operations. While we are not a carbon intensive company and are viewed by the marketplace as having low risk, we have begun to explore the nature of our risks and in response have begun to make changes to our business operations.

For the purpose of definition, risk is defined by the Australian Department of Climate Change as:

*“the chance of something happening that will have an impact on the organisation’s objectives.”<sup>3</sup>*

### **i. Regulatory Risks: How is your company exposed to regulatory risks related to climate change?**

We have seen regulation in both Australia and UK gain momentum in the past year, particularly in relation to emissions reporting. Governments have also introduced legislation to catalyse the uptake of energy efficiency programs in existing property assets and the establishment of minimum standards for new assets, particularly housing. In addition, state and local government is increasingly concerned with developing guidelines in relation to physical impacts associated with climate change.

On 3 December 2007, the Prime Minister of Australia ratified the Kyoto Protocol. Australia has committed to meeting its Kyoto Protocol target, and has set a target to reduce greenhouse gas emissions by 60 per cent on 2000 levels by 2050.

The Australian Government is also working towards the development of an Emissions Trading Scheme (ETS). Establishment of an effective scheme is dependent on a number of mechanisms, including access to emissions data for large energy producing and consuming businesses in Australia.

In the past year Stockland has encountered increasing demands for greenhouse gas emissions and associated activities regulation, most notably in relation to reporting. Below are listed the main regulations applicable to Stockland in Australia and the UK. In addition, a number of proposed regulations have been included:

### **Energy Efficiency Opportunities (EEO) Act, 2006<sup>4</sup>**

The EEO Act aims to improve the identification and evaluation of energy efficiency opportunities by large energy using businesses and, as a result, to encourage implementation of cost effective opportunities.

In 2007, Stockland registered for EEO participation and commenced work on a reporting schedule. Our reporting schedule was approved by government in 2008. A detailed program of training and identification of opportunities to implement energy efficiency initiatives is now underway in our retail and office portfolios. As required by the EEO Act, we will report publicly on the outcomes of our assessments to demonstrate to the community that we are effectively managing our energy consumption.

### **National Greenhouse Emissions Reporting Act (NGERA), 2007<sup>5</sup>**

The NGERA establishes a single, national system for reporting greenhouse gas emissions, abatement actions, and energy consumption and production by corporations from 1 July 2008.

Over the past year, Stockland has sought expert advice and improved the quality of greenhouse gas emissions data collection in anticipation of required participation in the National Greenhouse Emissions Reporting System (NGERS).

### **NSW Energy Savings Plans; Environment and Resource Efficiency Plans (EREP), Victoria**

Stockland has not been captured by state-based energy reporting requirements.

### **Planning approvals and climate change assessment**

Climate change assessments, particularly in relation to floodplain risk management are increasingly expected as part of the planning approval process for property development in Australia.

### **Building Code of Australia (BCA)**

The BCA has established minimum requirements for energy efficiency in new buildings. Some specific requirements vary from state to state.

### **State-based residential energy efficiency requirements**

The development of Stockland’s residential community, apartments and retirement living businesses are subject to a range of energy efficiency requirements. These state-based requirements vary in focus, leading to different built form outcomes in different states, for example:

- Built fabric thermal performance focus: Victoria’s 5 Star standard for new houses leads to design solutions concerned mostly with the performance of the built fabric.
- Energy performance focus: NSW’s BASIX tool leads to solutions concerned with energy performance of the house, encompassing both the thermal performance of the built form as well as the selection of technology such as energy efficient lighting, cooling/heating and water heating. The tool allows for more flexible design responses at least cost, while ensuring overall emissions are reduced.

<sup>3</sup> <http://www.greenhouse.gov.au/impacts/publications/pubs/risk-management.pdf>, p44

<sup>4</sup> <http://www.energyefficiencyopportunities.gov.au>

<sup>5</sup> <http://www.greenhouse.gov.au/reporting/index.html>

**Local government requirements**

Local government requirements vary widely across Australia and the UK. Requirements are becoming increasingly prescriptive and complex, building upon state and national requirements. In Australia, some councils are looking to incentivise beyond state requirements, rewarding the use of voluntary sustainable building tools such as Green Star. In the UK, the Merton Rule has been adopted by a number of councils, mandating the use of renewable energy onsite (for example: requiring up to 20% of the total project's energy demand to be provided through renewable energy) to reduce CO<sub>2</sub>-e emissions.

**UK Climate Change Levy (CCL)<sup>6</sup>**

The Climate Change Levy is a tax on the use of energy in industry, commerce and the public sector. The aim of the levy is to encourage users to improve energy efficiency and reduce emissions of greenhouse gases. Stockland is exposed to the CCL through the procurement of energy for commercial properties in the UK.

**UK Energy Performance Certificates (EPCs)<sup>7</sup>**

From 1 October 2008, all buildings when bought, sold or rented will need an EPC. Larger public buildings will also need to display an energy certificate. This work is part of European legislation, the Energy Performance of Buildings Directive, which all member states must adopt. Stockland UK has formed an EPC Sub-Committee of the Stockland UK CR&S Employee Committee to plan and take action towards the requirement of EPCs.

Generally, regulation has become increasingly complex. Reporting requirements from different government departments and layers vary significantly, adding to administration costs. Stockland, through the Property Council of Australia (PCA) has advocated the streamlining of EEO and NGERS reporting requirements. Similarly Stockland would support any action to streamline state based residential energy efficiency requirements.

We also recognise that with the pace of regulatory response to climate change, there is increasing uncertainty in the form of future building regulations.

**ii. Physical Risks: How is your company exposed to physical risks from climate change?**

The physical risks associated with climate change, and their impact on settlement and society, are set out in the Intergovernmental Panel on Climate Change's (IPCC) Climate Change 2007: Synthesis Report (Fourth Assessment Report)<sup>8</sup>. Likely impacts on property, stated in the report, include:

- Warmer/hotter days and fewer cold days (virtually certain):
  - Reduced energy demand for heating;
  - increased demand for cooling; declining air quality in cities
- Increased demand for cooling will lead to increased demands on ventilation and air conditioning equipment and higher operating costs due to increased plant wear and tear and increased energy consumption.
- Warm spells/heat waves (very likely):
  - Reduction in quality of life for people in warm areas without appropriate housing
- Increased demand for cooling; increased demand for climate responsive buildings, particularly housing.
- Heat waves in Australia are virtually certain to increase in frequency and intensity.
- Heavy precipitation events (very likely):
  - Disruption of settlements, commerce, transport and societies due to flooding; pressures on urban and rural infrastructures; loss of property

– Increased humidity may lead to increased demands on air conditioning equipment; increased frequency of mould, impacting on air quality and increasing demand for building maintenance.

– Overall, while there may be a decrease in total precipitation in Australia as a result of climate change, there is a risk that when rainfall occurs it will be of increased intensity, leading to increased risk of flooding<sup>9</sup>. Risk of coastal flooding will also be exacerbated by rising sea levels.<sup>10</sup>

Increased flooding and flood intensity pose a direct risk to Australia's built environment and the property sector as a whole. Residential and commercial buildings that are the coast or in flood prone areas will be at greater risk of flood damage as a result of climate change. Existing buildings may need to be adapted to improve flood proofing, while building occupants may be forced to relocate if faced with the risk of increased flooding frequency and intensity.

– On site water management would need to be designed to cope with more extreme events, reducing threat of flooding and mitigating downstream impacts.

<sup>6</sup> [http://www.defra.gov.au/environment/climate\\_change/uk/business/ccl/index.htm](http://www.defra.gov.au/environment/climate_change/uk/business/ccl/index.htm)

<sup>7</sup> [http://www.communities.gov.au/planningand\\_building/theenvironment/energyperformance/](http://www.communities.gov.au/planningand_building/theenvironment/energyperformance/)

<sup>8</sup> [http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4\\_syr.pdf](http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf) p53

<sup>9</sup> <http://www.greenhouse.gov.au/science/guide/pubs/science-guide.pdf> p31

<sup>10</sup> <http://www.ipcc.ch/pdf/assessment-report/ar4/wg2-chapter11.pdf> p517

## 1a— risks (continued):

08



- Area affected by drought increases (likely):  
Water shortage for settlements, industry and societies
- We have already seen some impacts of drought on the property sector in Australia, leading to water restrictions and associated regulation.
- Drought in Australia is also likely to increase the risk of fire. The IPCC indicates that it is virtually certain that fires will be more intense and frequent: “In south-east Australia, the frequency of very high and extreme fire days is likely to rise 4-25% by 2020.”<sup>11</sup> Increased fire risk will primarily affect residential buildings located close to bushland. Building safety and planning regulations regarding fire risk may be changed to address increase fire risk.
- Intense tropical cyclone activity increases (likely):  
Disruption by flood and high winds; withdrawal of risk coverage in vulnerable areas by private insurers; potential for population migrations; loss of property
- Weather related events contribute to a large portion of insurance claims. Increased frequency and impact of extreme weather increases would lead to the risk of an

increase in insurance premiums and the possibility of not being able to insure property in vulnerable locations.

- Increased incidence of extreme high sea level (likely):  
Costs of coastal protection versus costs of land-use relocation; potential for movement of populations and infrastructure.
- The primary impact on property from sea level rises will not be from the gradual rise in average sea level but from changes to sea level extremes as a result of sea level rises.<sup>12</sup> Rising sea levels will exacerbate the impact of storm surges and coastal flooding as well as leading to increased rates of erosion and subsidence. Coastal properties face the risk of erosion and subsidence and the potential for larger storm surges which may occur in the event of a large storm or cyclone.
- Sea level change poses a physical risk to built form as well as a planning risk for the wider property sector.

Generally the built infrastructure of our existing assets, from thermal insulation to appropriate sizing of plant and equipment, has typically been sized to accommodate historical temperature and humidity trends. With predictions for a greater number of days falling beyond the design parameters, amenity and functionality of assets may be impacted. We are taking this into account on new developments to ensure future proofing against a changing climate.

In our 2008 CR&S Strategy, we have committed to commencing a program of climate change risk analysis, modelled initially on a number of assets/sites considered to be in potentially higher risk areas.

### iii. General Risks: How is your company exposed to general risks as a result of climate change?

We see that there is the risk of indirect impacts associated with climate change, particularly through the introduction of an ETS. We are likely to see increased costs of energy and fuel along with reduced security of access to energy, fuel and water. We also expect that the cost of carbon intensive building materials will increase.

With increasing regulation and growing government and community engagement on climate change, planning approval risk may also increase.

Over the past year, we have become increasingly active in engaging with our supply chain on CR&S, including climate change risk and carbon management, identifying shared opportunities and risks. One of our goals is to be able better understand our carbon footprint through our supply chain, and identify opportunities to reduce emissions. We have held extensive dialogues on CR&S with 10 of our largest suppliers, representing around 20% of our overall spend.

In some facets of our business, we see that customers are increasingly engaged on sustainability, with growing expectations around the performance of assets. Some tenant groups, including government, have stated the aim to only occupy buildings that meet minimum sustainability (energy efficiency) requirements. Earlier in 2007 we interviewed a range of our office tenants – with responses widely confirming interest in sustainable workspaces.

Reputational risk is growing, as awareness and emerging evidence of climate change grows. This is particularly important as organisations and advisors place increasing value on intangible assets such as image, brand and reputation.

<sup>11</sup> <http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-chapter11.pdf>

<sup>12</sup> <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-chapter5.pdf>, p409



## 1a— risks (continued):

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### **iv. Risk Management: Has your company taken or planned action to manage the general and regulatory risks and/or adapt to the physical risks you have identified?**

We are undertaking a Climate Change Action Plan (CCAP) principally through the development of an IT carbon management tool, our CCAP Online Tool.

Our CCAP Online Tool allows us to collate data, coordinate reporting and manage energy-related information for our retail, office and industrial assets.

We are now have:

- A systematic and efficient means of entering, storing and accounting for energy-related data for Stockland assets.

We are in the process of:

- Creating a fast and reliable means of keeping an accurate account of energy consumption, energy expenditure and greenhouse gas emissions over time.

Our next step (over the next year) will include:

- Developing diagnostic tools that will allow us to model the effect of proposed modifications to building equipment on emissions performance and provide financial analysis relating to the cost effectiveness of the proposed changes. This modelling will enable us to more accurately and confidently establish greenhouse gas emissions targets for the organisation.

Our CCAP Tool has been developed with current and proposed federal reporting requirements in mind, as well as the format of the Carbon Disclosure Project, and our Annual CR&S Report (addressing the Global Reporting Initiative).

We are also committed to commencing a climate change risk analysis across the organisation in the next year. We have set this commitment out in our 2008 CR&S Strategy.

### **v. Financial and Business Implications: How do you assess the current and/or future financial effects of the risks you have identified and how those risks might affect your business?**

Risk is researched and analysed by our internal risk assessment team, with matters raised to the Executive Committee and Board.

Our sustainability network has commenced identifying risks associated with climate change. We have started with the development of a strategic response through our CR&S Strategy and setting our actions. Further actions are rolled down and integrated into business unit plans by sustainability managers.

Our first step has been measuring and understanding our current emissions. We have developed our CCAP Online Tool to provide robust data – and ultimately provide a means to model energy efficiency scenarios. In our office portfolio, we continue to roll-out

annual NABERS (National Australian Building Emissions Rating System – formerly ABGR – Australian Building Greenhouse Rating) assessment, checking year-on-year performance.

Our next step is eco-efficiency. Energy efficiency makes good sense for a business that owns, manages and develops property. Through investing in energy efficiency works in our office, industrial and retail portfolios we can cut energy consumption, lessen our impact on the environment and make financial savings into the medium and longer term. We can also improve the ‘green ratings’ of our buildings and thereby enhance their attractiveness to prospective tenants.

**i. Regulatory Opportunities:**  
How do current or anticipated regulatory requirements on climate change offer opportunities for your company?

Stockland aims to go beyond compliance in relation to sustainability. We have long demonstrated this level of commitment.

In 2004, Stockland took the step to trial the NSW Government's emerging BASIX tool, and was the first developer to achieve compliant housing at its Bridgewater Residential Community, South Camden.

This step gave our organisation confidence to take significant steps forward, in sustainable development, energy efficiency and corporate responsibility.

Our approach to constant carbon data management improvement for all our Australian commercial assets has ensured that we are now well-prepared, in a cost effective manner, to comply with NGERs and mandatory reporting requirements. We also track NABERS ratings across our office portfolio. We communicate our metrics publicly through the Carbon Disclosure Project and our annual CR&S report. We are now expanding our carbon data management to include Stockland UK assets.

We expect that our participation in the EEO program, through greater scrutiny of energy use will catalyse the uptake of energy efficiency opportunities in our retail and office portfolios leading to the reduction of greenhouse gas emissions. Participation in the program over the past year has prepared us for participation in NGERs.

As a natural extension of the EEO program, we are applying the same principles of reporting and identification of opportunities to water saving in our office and retail portfolios.

Through early preparation for reporting, we have been able to collect data in a robust manner and tailor our data management system in a cost effective and innovative manner.

What gets measured is more likely to be managed. We recognise that the power of our comprehensive reporting program will enable us to better identify energy efficiency opportunities across our portfolio.

At a planning level, it is appropriate that the property sector give greater focus to the increased risk of flooding when planning developments near the coast or in flood prone areas. New developments may need to account for a possible increase in the frequency of floods.

Our commitment to sustainability measurement and transparency has led to government agencies inviting Stockland to provide feedback on emerging plans and regulation. We value this opportunity to share our experiences and contribute – and help find the most effective means of delivering on the government's intent.

**ii. Physical Opportunities:**  
How do current or anticipated physical changes resulting from climate change present opportunities for your company?

We see that there is significant opportunity in demonstrating market leadership through early adoption of sustainable design solutions for new assets, and tackling the challenge of improving eco-efficiency and climate change resilience of existing assets. More critically however, energy efficiency programs can lead to significant savings over the medium to longer term. A price on carbon (as an outcome of the ETS) will further catalyse energy efficiency initiatives.

We are seeing evidence in the market place of growing interest in "green" buildings. Earlier in 2008, our Commercial Property business engaged an independent market researcher to interview existing and prospective tenants. The research found that relationship, service and sustainability were the key dimensions of interest and value. Quotes from interviewees included:

*"It's a no brainer"*

*"You have to recognise that we can't go on consuming resources forever."*

*"Customers are interested in Green Star rated sites... it makes business sense."*



Reasons explaining the need for environmentally sustainable workspaces included:

- Medium to long-term financial savings; an abhorrence towards waste (water, energy etc.)
- Good corporate citizenship – doing their bit
- Pressure from clients and employees
- A requirement for many public sector tenants (generally stipulating minimum eco-efficiency ratings)

This feedback supports our business case to (continue to) act, and indicates an emerging willingness to pay. In turn, our tenants expect us to lead by example – in how we manage our buildings and report back on our eco performance.

In response to this interest, we have sought feedback on potential tools and incentives, including "green leases" and an award fund to reward high performing eco-efficient office customers.

## 1b— opportunities (continued):

11

We also see scope for emerging opportunities in attracting tenants and customers to more eco-efficient shopping centres. In 2007 we prepared an easy to use 'green' fit-out guide to raise awareness with our retailers and designers of how they can create more environmentally responsible tenancies. The guide focuses on energy and water consumption, waste management and the responsible selection of materials. It sets out simple opportunities for eco-efficiency. We've since distributed the guide and embarked on a road show, engaging with (and informally training) tenants nationally. The guide has been met with a positive response, with a number of national retail chains seeking to actively work with Stockland to create more energy efficient stores.

We have also seen growing interest from current and prospective residents in our residential communities and apartments projects. The water crisis and subsequent restrictions has led to increased awareness of sustainable housing among householders. Stockland has worked with partner project home builders to find the most cost-effective ways to build energy efficient housing – recognising that increased costs can be a barrier for purchasers dealing with the pressures of housing affordability. In NSW, we continue to support the BASIX tool for housing and multi-unit. In WA, with our partner builders and the WA Sustainable Energy Development Office we created a display village demonstrating “5-Star” energy efficiency.

We have begun to explore and support the development of lower carbon building materials. Earlier in 2008 we participated in a forum with our peers examining ways to support the production and availability of “green concrete”. Green concrete has lower embodied energy, as it is comprised of a number of recycled or reused materials including fly-ash, slag and recycled aggregate.

In our head office Stockhome, we are about to install a tri-generation plant, and in a nearby residential development, a co-generation plant. These plants enable us to generate electricity on site, using natural gas (lower emissions than coal-fired power), and generating waste heat which can be used to heat hot water. At Stockhome, waste heat will also be passed through chillers to enable more energy efficient air conditioning. We expect to achieve emissions reductions of up to 20%.

We recognise that an early response to the physical dimensions of climate change is important in “future-proofing” our business. To ensure that our assets are managed to what we perceive will be future standards, we have:

- Rated our office buildings annually using NABERS, and have improved our ratings on a year-on-year basis
- We have actively supported the development of the Australian Green Star tool – through sponsorship of new tools. We are currently rating our head office, and have registered three office developments in progress. We have communicated our intention to trial the Green Star Multi-Unit and Shopping Centre PILOT tools.
- Commenced exploring “Sustainable Office Buildings of the Future” through inviting leading thinkers to work alongside our employees in a workshop environment to test new ideas, products and services.

**iii. General Opportunities:** How does climate change present general opportunities for your company?

Stockland recognises that taking action on climate change and integration of the wider concept of sustainability into business activities is a key contributor to employee engagement.

Our CR&S function is focused on enabling our people to delivery on our CR&S strategy. Rather than establishing a stand alone team, our approach is to integrate our CR&S actions such that it is everyone's responsibility.

Through our internal survey (Towers Perrin International Survey Research) our employees continue to tell us that they believe that Stockland is a responsible organisation:

- 94% believe Stockland is socially responsible in the community (1% improvement on 2007, 8% improvement on 2006)
- 93% believe Stockland is environmentally responsible in the community (nil change on 2007, 7% improvement on 2006)
- 86% think Stockland achieves the right balance between its social, environmental and financial responsibilities (2% drop from 2007, 8% improvement from 2006)

Our 2008 results include businesses acquired during 2007, Retirement Living and Stockland UK.

Corporate Responsibility and Sustainability is our highest rating contributor to our overall employee engagement score. This year we attained an employee engagement score of 83% (2007: 85%, 2006:84%, 2005: 82%).

A demonstrated commitment to eco-efficiency can contribute to success when participating in competitive bids – where the bid manager places a high value on sustainability. This is typically the case for government land development agencies.

Early testing of technology enables us to trial technology and reporting tools ahead of time, such that we can meet rapidly changing stakeholder expectations.

**iv. Maximizing Opportunities:** Do you invest in, or have plans to invest in products and services that are designed to minimize or adapt to the effects of climate change?

Over the past year, Stockland has invested in the development of an online database and management tool – our Climate Change Action Plan (CCAP) Online Tool.

As discussed, we have made a significant investment towards improving the energy efficiency of new and existing retail and office assets, and supporting the development of energy efficient residential communities.

**v. Financial and Business Implications:** How do you assess the current and/or future financial effects of the opportunities you have identified and how those opportunities might affect your business?

We analyse our existing assets for energy efficiency projects with a payback period of approximately 3-5 years. We anticipate that the future modelling capability of our CCAP Online Tool will enable us to undertake more detailed analysis to support our decision-making.

We address some risks and opportunities associated with climate change, such as flooding, growing environmental regulation and likely appropriate sustainability initiatives via assessment criteria when acquiring land for new projects.

# 2

## Greenhouse Gas (GHG) Emissions Accounting



## 2a— accounting parameters

# 14 To determine actual absolute Greenhouse Gas emissions

**i. Reporting Boundary:** Please indicate the category that best describes the company, entities or group for which your response is prepared:

Calculations of greenhouse gas emissions have been prepared for our Australian operations only.

We have commenced a process of collating and calculating greenhouse gas emissions for Stockland UK. We anticipate disclosing greenhouse gas emissions for FY08 in our 2008 CR&S Report to be published in September 2008.

At a group level, we are reporting on Scope 1, 2 and 3 emissions. These are from employee travel (hire car and aviation) and fleet. For the first time, electricity consumption from our major office tenancies has been accounted for. This covers our four largest offices, representing 60% of employees globally.

At a business level, we are reporting on the greenhouse gas emissions from our assets.

Stockland is reporting on the energy that Stockland procures for these assets, representing the base building consumption of the assets. Tenant usage is not included. The reported portfolio includes those assets for which Stockland is responsible for procuring base building energy, and covers 100% of assets under this classification. This means that the only assets on Stockland's balance sheet which have not been included for reporting purposes are those assets for which Stockland does not procure energy including those assets that are currently under construction, are externally managed by a third party, or have the tenants responsible for procuring all energy.

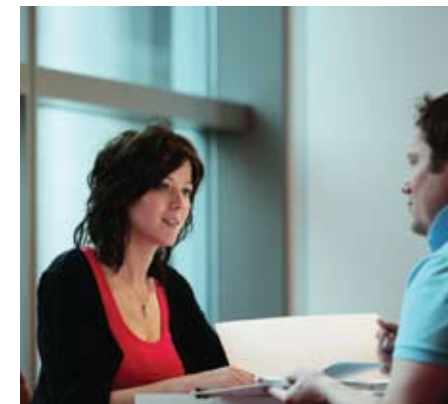
For those assets in the reported portfolio greenhouse gas emissions have been determined from base building electricity consumption, gas consumption where applicable, and as a Scope 3 inclusion, emissions from waste to landfill.

Waste data is incomplete. The retail portfolio is missing some data points, whilst the office and industrial portfolio only includes waste data for NSW and some Queensland sites.

**ii. Reporting Year:** Please explicitly state the dates of the accounting year or period for which GHG emissions are reported.

This report discloses emissions for 1 January 2007 – 31 December 2007.

Note that our annual CR&S Report discloses emissions annually on a financial year basis: 1 July – 30 June.



**iii. Methodology:** Please specify the methodology used by your company to calculate GHG emissions.

This report uses the Australian Government's Department of Climate Change National Greenhouse Accounts (NGA) Factors workbook (January 2008) to calculate Scope 1, 2 and 3 emissions from the following sources:

- Electricity
- Gas
- Waste
- Fuel: petrol, diesel, LPG and ethanol 10%

The 2008 WRI workbooks CO<sub>2</sub> Mobile and HFC-PFC have been used to calculate emissions from the following sources:

- Air travel
- Refrigerants

## 2b— direct and indirect emissions

### Scope 1 Direct GHG Emissions

#### a. Total global Scope 1 activity in metric tonnes CO<sub>2</sub>-e emitted

Emissions	2006 (t CO <sub>2</sub> -e)	2007 (t CO <sub>2</sub> -e)
Scope 1		
Assets		
Gas	3,056.31	3,357.36
Refrigerant	0	110.52
Vehicle Fleet		
Petrol	1,009.99	868.12
Diesel	116.81	151.76
LPG	11.03	12.88
Ethanol 10%	0	6.81
Total	4,194.13	4,507.45

For the first time, we are reporting on emissions associated with refrigerants.

#### b. Total Scope 1 activity in metric tonnes CO<sub>2</sub>-e emitted for Annex B countries

Refer to question 2.b.i.a

### Scope 2 Indirect GHG Emissions

#### c. Total global Scope 2 activity in metric tonnes CO<sub>2</sub>-e emitted

Emissions	2006 (t CO <sub>2</sub> -e)	2007 (t CO <sub>2</sub> -e)
Scope 2		
Electricity	138,016.19	136,151.53
Total	138,016.19	136,151.53

#### d. Total Scope 2 activity in metric tonnes CO<sub>2</sub>-e emitted for Annex B countries

Refer to question 2.b.i.c

### Scope 1 and 2 GHG Emissions

Emissions	2006 (t CO <sub>2</sub> -e)	2007 (t CO <sub>2</sub> -e)
Scope 1 + Scope 2	142,210.32	140,658.98

### Electricity consumption

#### e. Total global MWh of purchased electricity

MWh	2006	2007
Office	83,979.58	80,395.00
Retail	66,486.51	66,412.23
Head Office	–	1,701.06
Total	150,466.10	148,508.29

This data captures 100% of electricity purchased for all office and retail assets owned and managed by Stockland, in Australia, for both 2006 and 2007. This represents a substantial improvement in our data capture and management program over the past year.

As mentioned previously, this report does not include electricity consumption and greenhouse gas emissions from our UK business. We have commenced a process of collating and calculating electricity and consumption and greenhouse gas emissions for Stockland UK. We anticipate disclosing this for FY08 in our 2008 CR&S Report to be published in September 2008.

#### f. Total MWh of purchased electricity for Annex B countries

Refer to question 2.b.i.e

#### g. Total global MWh of purchased electricity from renewable sources.

Stockland is currently investigating the procurement of green power for its office portfolio, given tenant demand for enhanced NABERS (formerly ABGR) ratings.

For our retail portfolio we will continue to focus on investing in energy efficiency initiatives as this represents the best value at the current time. We will reassess our position following the launch of NABERS – Energy for shopping centres.

#### h. Total MWh of purchased electricity from renewable sources for Annex B countries

Refer to question 2.b.i.g

## 2c— other emissions – scope 3 of GHG protocol:

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### a. Details of the most significant Scope 3 sources for your company b. Details in metric tonnes CO<sub>2</sub>-e of GHG emissions

Emissions	2006 (t CO <sub>2</sub> -e)	2007 (t CO <sub>2</sub> -e)
Scope 3		
Assets		
Electricity	21,902.46	21,859.27
Gas	1,047.18	908.44
Waste	9,643.15	16,586.51
Vehicle Fleet		
Petrol	126.25	75.49
Diesel	12.98	11.24
LPG	1.38	0.81
Ethanol 10%	0	0.65
Vehicle hire	–	86.94
Air Travel		
Short Haul	17.55	18.80
Medium Haul	484.70	523.41
Long Haul	332.38	430.53
Total Scope 3	33,568.01	40,502.07
Out of scope emissions (refrigerants)	–	9,059.67

#### Employee business travel

Over the past year we have seen emissions attributed to business travel increase. This reflects both an increase in employee numbers, as well as an increase in international travel reflecting the acquisition of Stockland UK in 2007 and subsequent business travel between Australia and UK.

Despite growth in employee numbers, emissions associated with short haul flights have increased only marginally. This may be attributable to increased provision and promotion of video conferencing facilities.

#### Use/disposal of company's products and services

We have calculated emissions attributable to waste to landfill. Our data set, however, is incomplete, and represents data collected from Sydney office and retail sites only. We improved our data capture in calendar year 2007 (CY07 as compared to CY06). Work is underway to substantially improve our data capture for waste nationally.

#### Company supply chain

We have not reported on emissions from our supply chain. Over the past year, however, we have commenced a project of engagement with our largest suppliers as part of our Sustainable Supply Chain Management (SSCM) program. Our dialogue with our suppliers has included raising the value of greenhouse gas emissions measurement as a first step towards good carbon management.

#### c. Details of the methodology you use to quantify or estimate Scope 3 emissions

This report uses the Australian Government's Department of Climate Change National Greenhouse Accounts (NGA) Factors workbook (January 2008) to calculate Scope 1, 2 and 3 emissions from the following sources:

- Electricity
- Gas
- Waste
- Fuel: petrol, diesel, LPG and ethanol 10%

The 2008 WRI workbooks CO<sub>2</sub> Mobile and HFC-PFC have been used to calculate emissions from the following sources:

- Air travel
- Refrigerants



**i. Has the information reported in response to Questions 2b – c been externally verified or audited or do you plan to have the information verified or audited? If so:**

**ii. Please provide a copy of the audit or verification statement or state your plans for verification.**

We verify our carbon disclosure in our Annual CR&S Report. Greenhouse gas emissions data and reporting on climate change in our 2007 CR&S Report was assured to AA1000AS by Banarra Assurance and Advice. We are currently preparing our 2008 CR&S Report.



iii Please specify the Standard or Protocol against which the information has been or will be audited or verified.

The data for this CDP has not been formally verified.

Greenhouse gas emissions data and our climate change reporting for our 2008 CR&S Report is to be assured against AA1000AS.

As part of our CDP data preparation and development of our CCAP Online Tool, we requested Banarra Sustainability Assurance and Advice to review our processes. Feedback from this overview will be used to improve our CCAP Online Tool and refine our financial year carbon disclosure for our 2008 CR&S Report.

**Does your company have a system in place to assess the accuracy of GHG emissions inventory calculation methods, data processes and other systems relating to GHG measurement? If so, please provide details. If not, please explain how data accuracy is managed.**

We have requested our assurance providers, Banarra to review our data capture and management processes. In addition, we are appointing external advisors to undertake a gap analysis of our carbon data management approach and systems as we prepare for participation in NGERs. We anticipate that our Compliance Audit and Risk team will also participate in overseeing processes during the coming year.



## 2f— emissions history

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**Do the emissions reported for your last accounting year vary significantly compared to previous years? If so, please explain the reasons for the variations.**

Our emissions reported for last year do not vary significant compared to the previous year.

As we continue to refine our data capture and management processes, we have, however, restated our data set for CY06. Emissions have been recalculated according to the state-based emissions factors to enable direct comparison with CY07. The CY06 dataset has also been expanded to incorporate office buildings which were excluded from reporting at the time, but which Stockland now has 2006 data for. The portfolio also expanded during this time. Buildings that were purchased in this period were included in the revised CY06 figures if Stockland had access to 12 months of data, to enable better comparison with CY07 emissions.



**i. Does your company have facilities covered by the EU Emissions Trading Scheme?**

UK property assets are not directly included in the EU Emissions Trading Scheme. Pricing of materials and electricity is indirectly impacted.



**i. Please identify the total costs in US \$ of your energy consumption eg. from fossil fuels and electric power.**

US \$16,644,999

For 1 January 2007 – 31 December 2007

Exchange rate calculated at  
31 December 2007

**ii. What percentage of your total operating costs does this represent?**

This represents 0.85% of total operating costs  
for 1 January 2007 – 31 December 2007.

**iii. What percentage of energy costs are incurred on energy from renewable sources?**

Stockland is currently investigating the  
procurement of a proportion of energy from  
renewable sources for our office portfolio.



# 3

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## Performance



### 3a— reduction plans

i. Does your company have a GHG emissions reduction plan in place? If so, please provide details along with the information requested below. If there is currently no plan in place, please explain why.



## 23 To determine performance against targets and plans to reduce GHG emissions

	Last year we shared our aims for our Climate Change Action Plan:	This year have achieved a number of outcomes towards our aims:
1	Structure and set emissions targets.	We have established a robust database – our CCAP Online Tool. We now intend to expand the tool into scenario modelling to assist with ‘informed’ target setting.
2	Capture the short and long-term value of our actions – such that our targets and actions are economically competitive.	With our commitment to short and long term modelling, we expect that our targets will be competitive.
3	Commit to fair and credible offset schemes and carbon markets.	We have engaged in dialogue with government and industry regarding the development of an ETS and scope for complimentary mechanisms to catalyse emissions reductions in the property sector.
4	Provide leadership beyond our direct influence – through forging strategic partnerships with our partners and suppliers to achieve emissions reductions of a greater magnitude than could be achieved on our own.	We have embarked on a sustainable supply chain management program, engaging our partners on social and environmental performance, with a particular focus on emissions measurement and reduction. We are now in active engagement with 10 of our biggest suppliers, representing around 20% of our annual purchase.
5	Commit to innovation – investigating new ways to manage and develop property assets.	At the request of our CR&S Board Committee, we have embarked on a “Sustainable Office of the Future” project, scoping scenarios for sustainable office buildings in 2020 – including new-build as well as radical refurbishment of existing (2008) building stock. The project has involved leading sustainability thinkers in property and a cross-section of Stockland people, including senior management.
6	Use the right metric: our CDP experiences have taught us valuable lessons regarding the manner in which information is reported – shaping and adopting the right metric is important as the investment community seeks to rate exposure and response to climate change risks.	We have engaged with Environment Social Governance (ESG) Analysts on the ‘right metric’. Our CCAP Online Tool includes intensity metrics. We also remain committed to the annual NABERS review of our office portfolio. We will continue to explore better metrics to report and manage emissions reductions in the property sector.

## 3a— reduction plans (continued):



### ii. What is the baseline year for the emissions reduction plan?

Our CCAP has been designed such that we can model emissions reductions against any year for which we have a full set of data. Given the range of requirements to report on emissions, Stockland has considered it to be prudent to model reductions against any past year as a baseline year.

While we are working on setting a Stockland-wide target, we have set a target for the 14 buildings participating in the Stockland 'Utilities Reduction Program'. Our baseline year for this project is FY05.

### iii. What are the emissions reduction targets and over what period do those targets extend?

Stockland has modelled targets over a 5-year period, based on published econometric carbon abatement curves. Following modelling we reviewed these targets based on costs expended on energy efficiency initiative investments made over the past two years. We found that our econometric modelling did not match our experiences of the full costs associated with implementing energy efficiency opportunities. This exercise compelled us to develop a modelling capability as part of our CCAP Online Tool so that we can forecast emissions reductions associated with a range of technologies – and model costs associated with implementation.

Using our CCAP Online Tool, we intend to model, determine and communicate greenhouse gas emissions targets for our organisation over the coming year.

### Office portfolio targets

We have set a target of 16% reduction in electricity usage for our office portfolio by end FY08 as compared to end FY05. At end FY07 we were tracking at 7% reduction. Our best performing buildings have achieved up to 18.5% reductions against the base year (FY05). We have a long term target of 24% (as compared to FY05).

All office buildings for which Stockland is responsible for procuring energy are rated using NABERS.

- FY05 average rating achieved: 2.5 stars
- FY07 average rating achieved: 2.9 stars
- CY07 average rating target: 3.6 stars
- CY07 average rating achieved: 3 stars

We fell short of achieving our target for CY07. A number of office buildings are to be redeveloped in the short-mid term and so it was decided not to invest in energy efficiency programs for these sites.

We will reset our targets for our office portfolio in our 2008 CR&S Report.

### Retail targets

During FY08 we undertook a number of energy efficiency projects in our shopping centres. We are awaiting data following these projects, to understand the extent of our improved energy efficiency.

For FY08 our retail business has now set an energy budget for each asset at 95% of energy consumption for FY07. We expect to use the (soon to be released) NABERS Energy tool for shopping centres to model performance and establish NABERS Energy (greenhouse emissions) targets.

### iv. What activities are you undertaking to reduce your emissions eg: renewable energy, energy efficiency, process modifications, offsets, sequestration etc? What targets have you set for each and over what timescales do they extend?

We recognise that we have a responsibility to minimise the environmental impacts of our properties and projects.

We have made further progress on environmental initiatives over the past year. We have worked at shifting from project specific initiatives to more strategic actions. That is, we're focused on raising the environmental performance of our entire portfolio, rather than developing isolated green flagships.

Our active participation extends beyond our own business. We are working closely with others, within and beyond our sector to find and support opportunities:

- Green Building Council of Australia
  - We have actively participated in the advancement of emerging sustainability tools:
    - Development of the Industrial Tool: Silver sponsor and member of Technical Working Group
    - Development of the Multi-Unit Residential Tool: Gold sponsor and member of Technical Working Group
    - Shopping Centre Design PILOT Tool: Silver sponsor and member of Technical Working Group
    - Green Star Business Partnership: Committing our business to use the Green Star tool for all new office development projects
    - FY08 Gold Sponsor

These tools not only guide our design approach as the developer, but also seek to minimise the impacts of construction works by our contractors and following completion, the commissioning of new buildings to ensure optimal performance.



### 3a— reduction plans (continued):

- Signatory to the UN Principles for Responsible Investment
- Member of the Investor Group on Climate Change
- NABERS (National Australian Built Environment Rating System – formerly known as ABGR – Australian Building Greenhouse Rating)
 

We rate our office portfolio using the NABERS – Energy tool. We have actively supported the NSW Department of Environment and Climate Change in the development of a greenhouse gas emissions tool for shopping centres.
- Sustainability Advantage Program
 

Working with the NSW Department of Environment and Climate Change to engage our supply chain on sustainability including addressing risks and opportunities associated with climate change.
- Property Council of Australia
  - National Roundtable on Sustainability
  - NSW Sustainable Development Committee
- Every Drop Counts Program
 

Working with Sydney Water to address opportunities for water efficiency across our NSW portfolio.
- Urban Development Institute
  - NSW Sustainability Committee
- Australian Green Development Forum
- Low Energy High Rise (LEHR) Project
 

The LEHR program, coordinated by the Warren Centre for Advanced Engineering, Sydney University, involving office building owner, investors and tenants, is seeking to develop a suite of initiatives to overcome the non technical barriers to energy efficiency in existing office buildings.

- CitySwitch Green Office (formerly 3CBDs Program)
 

CitySwitch Green Office is a national tenant office energy management program run in partnership by city councils. CitySwitch signatories commit to achieve and maintain an accredited 4 stars of higher NABERS Energy tenancy rating. Stockland is an active participant and encourages tenants to participate in the program.

- Your Development Project, CSIRO and Department of Environment, Water, Heritage and the Arts
 

An active participant and contributor to this project. Your Development will be a web portal for sustainable and innovative urban developments.
- Your Building Project, CRC for Construction Innovation, Department of Environment, Water, Heritage and the Arts, Australian Sustainable Built Environment Council
 

An active contributor and sponsor of this project. Your Building is a web portal for sustainable office development and management.

#### Office

Over the past year, Stockland has continued to focus on improving the energy efficiency of its office portfolio.

Activities have included:

- installation of electricity, gas and water sub meters
- monthly performance monitoring and reporting
- installation of variable speed drives on fans and pumps
- lighting control systems
- general improvements to building operational control.

#### Technology Trials

We support trialling of new technologies that aim to reduce energy usage in office buildings.

Balltech, is a system which improves the efficiency of chillers by cleaning the condenser tubes with foam balls to remove biofilms and scale while the machine is in operation. Maintaining clean tubes ensures optimal heat transfer and improved efficiency between annual maintenance.

Balltech is being trailed in one of our major office assets in Qld, Waterfront Place. The trail will be deemed a success where there is a demonstrated improvement to co-efficient of performance by 6% and chiller energy reductions of between 2 and 4%. A second installation will be undertaken in a Sydney building during winter 2008. Successful trials will lead to implementation of this technology in select buildings across the portfolio.

Also being trialled at Waterfront Place, is a chiller diagnostic system called EffTrack. The system completes a diagnostic analysis on the chiller based on design performance criteria and provides detailed qualitative data and feedback on performance in operation. By actioning the alarms raised by the Efftrack system, the facility management team can ensure that the chiller is always operating at optimal performance.

#### Optus Campus

Stockland's 84,000m<sup>2</sup> Optus Headquarters development at Macquarie Park consists of six low rise buildings and houses 6,500 employees. The building was designed to a 4.5 star NABERS base building rating. Since completion, assessments of building operation and tracking energy performance have been undertaken. Through a process of engagement with the head contractor and services contractors, operation of building control and HVAC systems have been scrutinised and inefficiencies rectified to ensure optimal running of all systems.

Further building tuning will be undertaken to take advantage of opportunities identified for enhanced functional operation and closer engagement with Optus will be facilitated to optimise energy usage within their tenancy.

## 3a— reduction plans (continued):

### *66 Waterloo Road*

Similar activity has been undertaken at a second recently completed office building in Macquarie Park, 66 Waterloo Road. This building has also been designed to achieve an ABGR of 4.5 stars. It is expected that the NABERS rating will be undertaken towards the end of 2008 once all tuning activities are complete to measure actual performance and verify against the design model.

### *Utilities Data Management*

During the year, we established a centralised web based data management system to capture data from electricity, gas and water utilities accounts. This has enabled more efficient and accurate access to data across the whole portfolio where O&I has financial control of utilities usage for performance analysis and benchmarking and for corporate reporting purposes. This data now feeds into our CCAP Online Tool enabling us to access and scrutinise emissions data across asset groupings.

### *Sustainability Manual*

We are currently close to completing a sustainability manual for our office portfolio. The manuals encompass guidelines, procedures and toolkits, creating a systematic and consistent approach to the management of sustainability issues. Particular focus has been given to energy and water management in:

- development activity
- asset management
- facilities management

We are also aligning our retail sustainability charter to reflect the layout and content of the office sustainability manual to further promote consistent management approaches to sustainability across the organisation.

### **Retail**

Over the past year, Stockland has continued to focus on improving the energy efficiency of its retail portfolio.

Activities have included investing \$3.8 million in undertaking energy and water efficiency works in 16 operating shopping centres. Initially 19 assets were targeted, however 3 were put on hold due to proposed development works.

Other activities include:

- Participation in the development of the NABERS retail tool for energy and water performance
- Installation of Building Management Systems in all retail centres to assist with the improved energy management for all retail assets
- Implementation of waste recycling provisions at all centres in the portfolio, to the highest available recycling level available within the centre's local council area
- National, cross-divisional monthly reporting on waste streams and diversion from landfill
- Collation and reporting on all refrigerant usage across the portfolio.

### *Energy and Water Efficiency Workshops*

We have undertaken a series of Energy and Water Efficiency workshops at each retail centre. These workshops, comprising three workshops throughout the year, meet and exceed the requirements of the Energy Efficiency Opportunity (EEO) Act:

- Workshop 1: Educate Centre teams in relation to the centre energy consumption and the identification of potential opportunities for increased efficiencies.
- Workshop 2: Implement a number of energy and water efficiency measures in each centre
- Workshop 3: Final review and report on each of these measures.

We expect that this workshop series will now become an annual program to ensure ongoing focus on energy and water efficiency.

### *Retail Design and Fitout Guide*

In late 2007 we launched a green fitout guide to raise awareness with our retailers and their shopfitters and designers of how they can create more environmentally responsive tenancies.

The guide focuses on reducing energy and water consumption, waste management and the responsible selection of materials.

To optimise effectiveness the guide was designed to be practical and easy to use.

We've since rolled out the guide nationally. The guide is now being used for all new and refurbished specialty tenancies (over 600 in FY09) setting out minimum standards and raising awareness in relation to sustainable design and construction.

### **Residential**

Our residential business has developed a sustainability initiatives policy that sets out minimum requirements for all residential projects, to achieve more consistent environmental outcomes.

These requirements include:

- Reducing energy use:
  - Design for optimal solar orientation
  - Energy-efficient hot water systems
  - Connect houses to natural gas where available
  - Co-locate services where possible to reduce excavation efforts

The policy also supports designing for cycle and pedestrian connectivity and encouraging the use of public transport.

### 3a— reduction plans (continued):

#### *Mixed Use*

##### *The Village*

One of our developing strengths is our collaboration across our business units. What we've also learnt is that this can also lead to cost effective energy efficiency solutions.

The Village is a 2 hectare mixed use development in Balgowlah, a suburb near Sydney's northern beaches. The development includes a neighbourhood shopping centre of around 13,000ms and 260 residential apartments in seven apartment buildings. The design of the shopping centre has been guided by the principles embodied in the Green Building Council of Australia's Shopping Centre Design PILOT tool.

Traditionally, commercial air conditioners, such as those in retail centres, produce substantial heat that is vented to the atmosphere and wasted. Under our solution, the waste heat will be captured and used to produce hot water for the residential apartments, and the residents' swimming pool in the shoulder seasons, providing significant energy savings and reducing greenhouse gas emissions.

#### *In Our Workplace*

We recognise that as we aim to create more energy efficient property, it's important that we "walk the talk" in our workplace too.

##### *Stockhome*

In April 2007 we moved 600 employees to our new office 'Stockhome' at 133 Castlereagh Street in the Sydney CBD. By innovatively refurbishing over 10,000m<sup>2</sup> across eight floors, we aimed to create one of Australia's leading office environments. And importantly for a major office building owner, developer and manager, it has provided the opportunity to demonstrate how the environmental performance of existing office space can be significantly improved.

We sought to create an engaging environment that would unify the business and express who we are.

A priority in planning the interior refurbishment was to reduce our environmental footprint in line with our company-wide commitment to corporate responsibility and sustainability. To guide our design decisions we used the Green Building Council's Green Star – Office Interiors v1.1 tool. We anticipate that our Green Star rating will be announced shortly. Our workspace has also been designed to achieve a 5-star NABERS - Energy tenancy rating. In addition we are improving our NABERS – Energy base building rating for our head office building.

We have also used these tools to guide the design and construction of our new Melbourne office.

In line with our NABERS commitment, we are also participating in the CitySwitch (formerly 3 CBDs) Initiative to demonstrate the energy savings within the workplace. As part of this and other programs we have hosted seminars and tours to share our approach to creating a more energy efficient – and engaging – workplace.

The Stockhome project provided the opportunity to reuse a building and demonstrate to our customers the possibilities – and our capability. We recognise the contribution of the many partners who assisted us with this journey.

As part of this relocation and refurbishment project, we are piloting our first 'Green Lease' committing us (both as tenant and building owner) to ongoing energy, water and waste efficient management of our new workplace. We expect to extend this initiative to interested office customers, sharing the responsibility for more sustainable workplaces.

Our Stockhome Committee meets regularly to guide and track progress.

Recently we opened our on-site Childcare Centre, Treehouse. Treehouse has been designed to address sustainability principles, including energy efficiency.

In the next year we will be installing a tri-generation plant on site to further reduce our greenhouse gas emissions.

##### *Walk to Work Day*

Encouraging our employees to think about their impacts on the environment goes beyond the design of our new offices. In October 2006 and again in 2007, we worked with the Pedestrian Council of Australia to promote and participate in Walk to Work Day. This annual event encourages all Australians to develop regular walking habits and aims for better health, cleaner air and less traffic. Participants leave their cars at home for the day and walk or catch public transport to work.

Motor vehicles are still the most significant source or urban air pollution in Sydney. By asking our employees and office customers to participate in Walk to Work Day, we were encouraging them to help reduce potentially harmful (including greenhouse gas) emissions from the air.

## 3a— reduction plans (continued):

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### v. What investment has been or will be required to achieve the targets and over what time period?

#### Office:

- Initial investment of \$2.2m in 2006 to achieve energy and water efficiency targets over 3 years.

#### Retail

- Investment of \$3.8 million in 2007 to undertake energy and water efficiency works across 16 centres.

### vi. What emissions reductions and associated costs or savings have been achieved to date as a result of the plan?

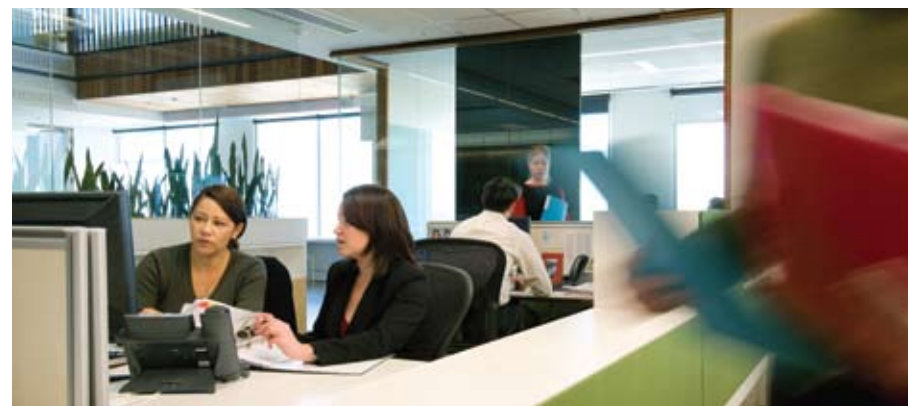
#### Office

Since the initial investment in sub metering, variable speed drives, lighting controls and building operational control improvements, electricity usage for CY07 (as compared to FY05) had reduced by 14.3% with estimated savings in electricity costs of \$202,280 and a reduction of 2,790 tonnes CO<sup>2</sup>-e.

Water usage for CY07 (as compared to FY05) had reduced by 30.9% with estimated savings in water costs of \$136,330.

#### Retail

We expect to communicate initial results from our retail eco-efficiency program in our 2008 CR&S Report.



### Summary of Progress and Priorities

In the past year we have:	In the coming year our priorities are to:
Rated office buildings with the NABERS – Energy and Water tools. We have improved our office portfolio average and reduced energy and water consumption.	Continue to improve our office portfolio average NABERS – Energy and Water ratings.
Undertook the first round trial of the Green Star Shopping Centre Design PILOT tool at our Vincentia project. We integrated what we learnt from this process in our retail design guidelines.	Continue to use emerging, credible green rating tools, including use of: <ul style="list-style-type: none"> <li>• Green Star for all new commercial office projects</li> <li>• Green Star Shopping Centre Design PILOT as a benchmark to guide the design and construction of retail projects.</li> </ul>
Substantially improved our energy and greenhouse gas emissions reporting systems.	Set and structure targets and timeframes for greenhouse gas emissions across our office and retail portfolios.
Commenced engagement with our suppliers to 'road test' our sustainable supply chain policy, with a specific focus on environmental sustainability and occupational health and safety.	Engage more widely with our suppliers to address shared risks and opportunities, with the aim to achieve mid-long term value/cost benefits.
Secured inclusion in the Dow Jones Sustainability Index and FTSE4Good.	Improve performance as rated by sustainability indices.
Developed CR&S plans for Stockland UK.	Report on Stockland UK CR&S performance. In particular, we have commenced data collection for Stockland UK with the intention to commence reporting on energy consumption and greenhouse gas emissions data in our 2008 CR&S Report.

## 3b— emissions intensity

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### i. What is the most appropriate measurement of emissions intensity for your company?

The most appropriate measure of emissions intensity is on a per square metre basis for the individual asset classes.

For our retail portfolio: The total Scope 1 and 2 emissions from Retail are divided by the GLA of the portfolio. Only centres with a full 12 month dataset are included

For our office portfolio: The total Scope 1 and 2 emissions from those assets for which Stockland procures base building electricity are divided by the floor area of those assets. Only centres with a full 12 month dataset are included. The two industrial sites for which Stockland procures electricity and three office buildings for which Stockland procures gas but not electricity have been excluded from this metric due to their extremely large NLA compared to their usage of energy.

Stockland also undertakes and discloses NABERS ratings for its office portfolio. The NABERS rating is an indicator of emissions intensity, and is an important benchmark and tool in the Australian property marketplace.

### ii. Please state your GHG emissions intensity in terms of total tonnes of CO<sub>2</sub>-e reported under Scope 1 and Scope 2 per US \$m turnover and EBITDA for the reporting year.

GHG emissions intensity for CY07:

69 tonnes CO<sub>2</sub>-e per US\$m turnover  
(total revenue as per statutory accounts)

189 tonnes CO<sub>2</sub>-e per US\$m EBITDA

Office Intensities	Electricity kWh / m <sup>2</sup>	GHG kg(CO <sub>2</sub> -e) / m <sup>2</sup> NLA <sup>13</sup>
2006	152.76	144.10
2007	132.33	123.09

Retail Intensities	Electricity kWh / m <sup>2</sup>	GHG kg(CO <sub>2</sub> -e) / m <sup>2</sup> GLA <sup>14</sup>
2006	93.33	87.28
2007	86.97	80.91

### iii. Has your company developed emissions intensity targets? If so:

We have set an average NABERS target for our office portfolio. We report against this monthly in Executive Committee and Board Reports.

A NABERS tool for retail is yet to be finalised. Stockland has participated in the development of this tool including submission of data to support benchmarking analysis. As such, we measure intensity as kg CO<sub>2</sub>-e/m<sup>2</sup> GLA for each centre. We extrapolate a measure for centres under redevelopment based on the existing operating efficiency.

a. Please state your emissions intensity targets.

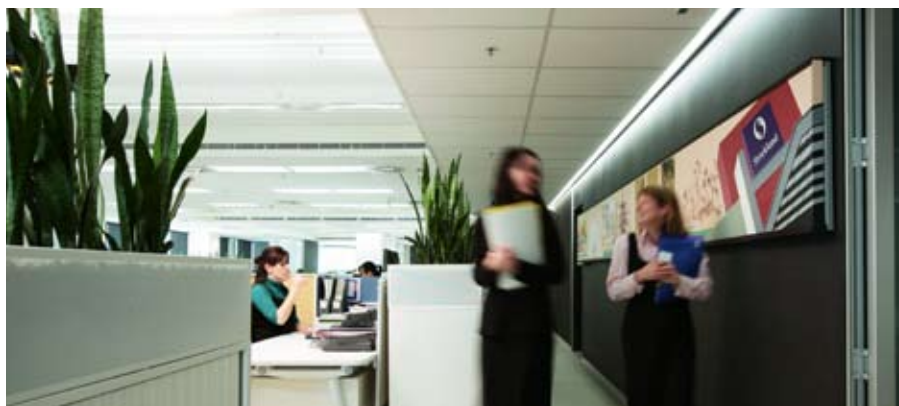
For our office portfolio, we set an average portfolio NABERS target of 3.6 stars, to be achieved at end FY08. At end CY07 we were tracking at 2.9 stars. Our average rating in 2005 was 2.5 stars.

b. Please state what reductions in emissions intensity have been achieved against targets and over what time period. If not, please explain why.

We are not on track to meet our intended NABERS target for office buildings. A number of assets have been identified for substantive redevelopment in the short term, hence we have not proceeded with interim investment in eco-efficiency. Some of these assets are performing a sub-optimal level of eco-efficiency. We will address eco-efficiency as part of the planned redevelopment of these assets.

<sup>13</sup> NLA: Net lettable area – refers to tenancy area in commercial office and office parks

<sup>14</sup> GLA: Gross lettable area – refers to tenancy area in retail buildings



Do you forecast your company's future emissions and/or energy use? If so:

**i. Please provide details of those forecasts, summarise the methodology used and the assumptions made.**

Our CCAP Online Tool has been designed to enable us to forecast future emissions. Forecasting emissions will assist with setting business targets and modelling initiatives and thereby aiding decision-making around capital expenditure towards achieving improved energy efficiency.

The realisation of NABERS Retail will also enable us to better forecast emissions from our retail portfolio.

**ii. How do you factor the cost of future emissions into capital expenditure planning?**

Investment into eco-efficiency is reviewed on the basis of payback period, to ensure the most effective employment of capital. On occasion, funds will be deployed into more costly innovative technology as a means to explore new low carbon technological solutions.

During the next reporting period, we will focus on understanding the implication of an emissions price specifically in relation to:

- Building materials, specifically concrete & steel
- Transport
- Energy
- Refrigerants
- Waste management

**iii. How have these considerations made an impact on your investment decisions?**

We expect that our emerging capacity to model the effectiveness of eco-efficiency solutions (via our CCAP Online Tool) will inform future development and capital expenditure decisions.

# 4

## Governance

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## 32 To determine responsibility and management approach to climate change



Does a Board Committee or other executive body have overall responsibility for climate change? If not, please state how overall responsibility for climate change is managed. If so:

**i. Which Board Committee or executive body has overall responsibility for climate change?**

Our Board constituted a Corporate Responsibility and Sustainability (CR&S) Committee on 9 August 2005.

The current members of the committee are:

- Mr G Bradley, Chairman, Stockland, Non-executive Director
- Mr N Greiner, Deputy Chairman, Stockland; Chairman, CR&S Committee, Non-executive Director
- Mr M Quinn, Managing Director, Stockland, Executive Director

The Secretary of the committee is Ms R Moore, Executive General Manager, Human Resources. The General Manager, CR&S and General Manager, Health Safety and Environment and other senior managers attend by invitation.

The purpose of the CR&S Committee is to assist the Board in overseeing our commitment to operate our businesses ethically, responsibly and in a sustainable way.

The CR&S Committee's role includes reviewing the social, environmental and ethical consequences of our current and planned operations. The committee meets at least four times annually, or more frequently as circumstances dictate.

Our Board's CR&S Committee and our Executive Committee have been engaged on the progress of our Climate Change Action Plan.

**ii. What is the mechanism by which the Board or other executive body reviews the company's progress and status regarding climate change?**

**Board**

The Board's CR&S Committee oversees Stockland's CR&S Strategy, including our Climate Change Action Plan.

A monthly report on CR&S including environmental sustainability issues and progress is submitted to the Executive Committee and to the Board. The report includes rolling annual greenhouse gas emissions data for the office and industrial, and the retail portfolios including tracking against peer/industry benchmarks.

**Management**

To lead performance within the organisation, Stockland has appointed a number of positions. The purpose of these roles is to integrate sustainability practices into our business.

- General Manager, CR&S
- General Manager, Health, Safety and Environment (HSE)
- National Sustainability Manager, Retail
- National Sustainability Manager, Residential
- National Sustainability Manager, Office and Industrial
- Sustainable Supply Chain Manager (secondment)

**Employee CR&S Committee**

Stockland's CR&S Strategy is refreshed annually by our employee CR&S Committee. This strategy is reviewed by the Board's CR&S Committee.

Stockland's Employee CR&S Committee is chaired by the GM, CR&S. This committee meets monthly to track progress against the CR&S strategy. Membership of our employee CR&S Committee comprises our National Sustainability Managers as well as wide representation across the business including government relations, procurement, HSE, compliance audit and risk, strategic urban planning and stakeholder engagement.

**Stockland UK**

Stockland UK developed a CR&S Strategy and established its Stockland UK Employee CR&S Committee in January 2008. The Chair of the Employee CR&S Committee also sits on Stockland UK's Executive Committee. Stockland's GM CR&S generally engages weekly with members of the Stockland UK Employee CR&S Committee.

Stockland UK will commence reporting as part of Stockland's 2008 CR&S Report and Stockland's 2009 CDP7 Report.



## 4b— individual performance

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**Do you assess or provide incentive mechanisms for individual management of climate change issues including attainment of GHG targets? If so, please provide details.**

In mid 2006, we rolled out a balanced score card performance management system encompassing finance, people, stakeholders, customers and CR&S objectives for all of our employees.

A minimum 10% of the short term incentive is required to be assigned to the achievement of CR&S objectives for all employees. For the purpose of the scorecard CR&S objectives are generally focussed on environmental performance over the past year, including actions to reduce greenhouse gas emissions for existing assets and built form development projects.

We have also established an energy budget for all assets in our retail portfolio. For FY09 this has been set at 95% of emissions for FY08. Responsibility and reward for achieving these budgets is currently being built into employees CR&S objectives in their performance scorecards.



**Please indicate whether you publish information about the risks and opportunities presented to your company by climate change, details of your GHG emissions and plans to reduce emissions through any of the following communications:**

We communicate risks and opportunities presented by climate change, including details of our greenhouse gas emissions and plans to reduce our emissions in our annual CR&S Report.

We published our first CR&S report in 2006. This report set out our approach to corporate responsibility and sustainability and included greenhouse gas emissions reporting.

Our second (and our most recent) report, dated 30 June 2007, includes data and assertions assured independently to the AA1000 Assurance Standard and attained Global Reporting Initiative (GRI) level B+.

We are currently preparing our 2008 CR&S Report to AA1000AS, due for publication at the same time as our Annual Report in September 2008. We anticipate including and restating data sets for FY06 and FY07, in terms of total emissions and intensity, to accurately reflect our performance over the past three years.

All our past annual CR&S Reports and Carbon Disclosure Project submissions can be publicly accessed at [www.stockland.com.au/about/sustainability](http://www.stockland.com.au/about/sustainability).



**Do you engage with policymakers on possible responses to climate change including taxation, regulation and carbon trading? If so, please provide details.**

Stockland has long engaged with policy makers in relation to possible responses to climate change.

We actively collaborate with our peers through the Property Council of Australia (PCA) and are represented on the PCA's National Sustainability Roundtable. We are also an active member of the Green Building Council of Australia (GBCA).

Stockland has engaged with the PCA and GBCA on climate change, contributing to forums where the positions of these organisations are shaped. PCA and GBCA have actively engaged government on climate change and the design of the emissions trading scheme (ETS). Stockland has supported the approach of seeking complimentary mechanisms to catalyse swifter action to reduce emissions within the property sector, including PCA and GBCA research and submissions on “green depreciation” and “white certificates” to reward and catalyse emissions reductions in the property sector.

We have directly engaged with national policy makers and advisors through participation in meetings via our membership of the PCA, GBCA and more recently the IGCC.

Stockland has participated in a number of public forums with government, peers and the PCA on climate change and the property sector including the 9th National Business Leaders Forum on Sustainable Development and the GBCA's annual Green Cities Conference.

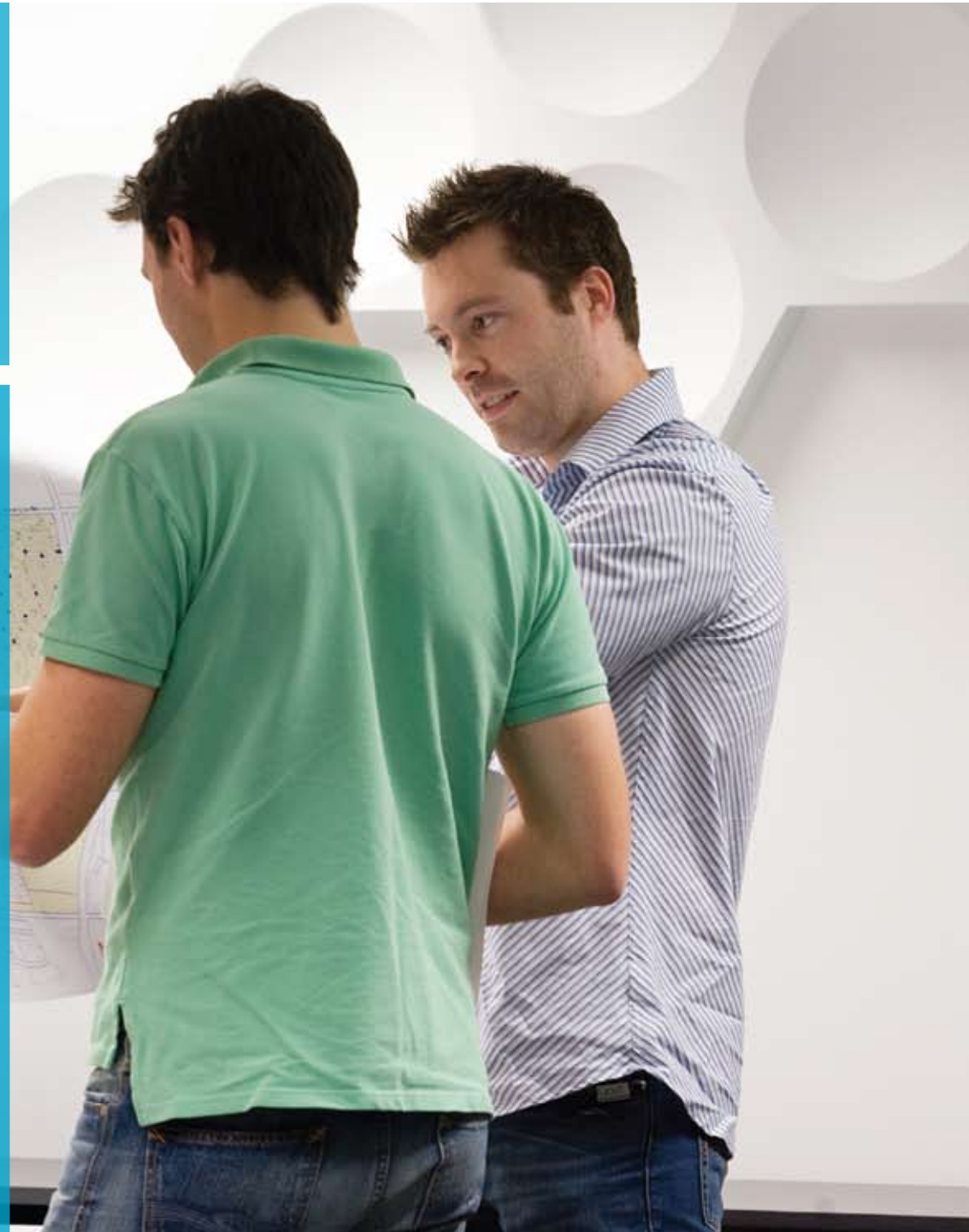
We continue to work with government agencies on the development of sustainability rating tools for property, including the NSW Department of Environment and Climate Change on the development of an energy efficiency tool for shopping centres (NABERS).

We also actively engage with local government on sustainability and climate change. For example, over the past year Stockland actively participated in the development of the City of Sydney's Sustainable Sydney 2030 Strategy.

# 5

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## Appendix



# 5— 2008 Office Assets NABERS Ratings

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PROPERTY	FY06 NABERS – Energy	FY07 NABERS – Energy	*CY07 NABERS – Energy	FY06 NABERS – Water	FY07 NABERS – Water	*CY07 NABERS – Water
<b>NSW</b>						
16 Giffnock Ave	2.5	–	3.5	1.5	–	3.5
Macquarie Technology Park, 11-17 Khartoum St	3.5		3.0	2	–	–
Northpoint, 100 Miller St	1.5	2.0	2.0	0	2.5	3.0
110 Walker St	3.5	3.5	3.5	–	3	3.5
118-120 Pacific Hwy	2.5	3.0	3.0	3.5	3.5	4.0
Piccadilly Tower, 133 Castlereagh St	0	–	4.0	0	–	3.0
175 Castlereagh St	3.5	3.5	2.5	0	1.0	3.0
2 Cavill Ave	3.5	3.0	3.5	0	1.5	3.5
Piccadilly Court, 222 Pitt St	3.5	4.0	4.5	0	3.5	4.0
234 Sussex St	2.5	4.0	4.0	0	0	1.0
4-6 Cavill Ave	2.5	2.5	3.5	2.5	2.0	3.0
601 Pacific Hwy	1.5	2.0	3.5	0	2.0	3.5
75 George St	1.5	1.5	3.0	–	0	3.0
77 Pacific Hwy	1.5	2.0	2.5	1.5	2.5	3.5
333 Kent St	–	–	2.5	–	0	3.0
135 King St, Sydney	2.0	1.5	1.5	–	1.5	1.5
<b>ACT</b>						
15 Mort, Cox Building	3.5	3.0	3.0	–	4.0	3.5
17 Mort, Todd Building	3.0	–	3.0	–	–	–
68 Northbourne Ave, Australian Federal Police	2.5	0.0	0.0	–	–	1.0
70 Northbourne Ave Drakeford	3.0	3.0	3.0	–	0	2.5
72 Northbourne Ave Trace	2.0	2.5	2.5	–	–	–
40 Cameron Ave	–	–	3.5	–	–	–
<b>VIC</b>						
452 Flinders St	1.5	2.0	2.0	1.5	3.0	3.0
541 St Kilda Rd	–	4.0	4.0	3.0	2.5	4.5
QLD						
Waterfront Place, 1 Eagle St	2.5	3.0	3.5	3	3.5	3.5
80-88 Jephson St, Toowong	–	–	1.5	–	–	4.5
300 Ann St	–	–	1.5	–	–	–
643 Kessels Rd, Upper Mt Gravatt	–	–	1.0	–	–	4.0
<b>SA</b>						
81-95 Waymouth						
ATO	–	4.5	4.5	–	3.5	3.5
91-97 Grenfell St						
Chesser House	3.0	3.0	3.0	–	3.0	2.0
<b>WA</b>						
Exchange Plaza, 2 The Esplanade, Perth	3.5	–	4.5	–	3.0	–
Durack Centre, 263 Adelaide Terrace, Perth	3.0	–	3.0	–	–	2.0
45 St Georges Terrace, Perth	–	–	3.0	–	–	–

\* Ratings for CY07 yet to be externally verified by the NSW Department of Environment and Climate Change.