



Stockland

# Carbon Disclosure Project 2010

## Contents

Introduction	1
Governance	2
Risks and opportunities	4
Strategy	16
GHG emissions accounting, energy and fuel use, and trading	21
Climate change communications	29



# Carbon Disclosure Project 2010

## Introduction

Stockland is one of Australia's largest diversified property groups with total assets of over \$8.7 billion and operations in Australia and the United Kingdom as at end of FY09. Stockland is a top 50 Australian Securities Exchange Listed Company.

Founded in 1952, Stockland has grown to become one of Australia's leading diversified property groups – developing and managing a large portfolio of residential community, apartment, retirement living, retail, office and industrial assets.

Stockland's previous submissions to the Carbon Disclosure Project, along with our annual Corporate Responsibility and Sustainability (CR&S) Reports, can be publicly accessed at: [http://www.stockland.com.au/about/about-stockland2\\_corporate-responsibility-and-sustainability.htm](http://www.stockland.com.au/about/about-stockland2_corporate-responsibility-and-sustainability.htm)

## Commercial Property

Stockland's retail portfolio comprises 37 retail centres valued at \$3.9 billion providing diverse shopping and social experiences for customers and other stakeholders. Our office portfolio comprises 33 properties valued at \$2.8 billion. Our track record of high portfolio occupancy levels, solid tenant retention and leasing results demonstrates the benefit of a commitment to strong tenant relationships. Tenants include government departments and blue chip public and private companies. Our industrial portfolio is valued at \$1.1 billion, with 23 properties, incorporating well over one million square metres of building area. Tenants include large-scale distribution, warehousing and logistics companies. Our properties are strategically positioned for logistics, infrastructure and employment.

## Residential

Stockland's residential communities portfolio comprises 67 projects in New South Wales, Victoria, Queensland and Western Australia with a total end value of approximately \$15 billion. Our focus is on the creation of medium and large-scale masterplanned communities in key urban growth markets, ranging in size from 100 lots to 20,000 lots. Stockland's nine apartment projects have an estimated end value of \$1.7 billion. We acquire, design, project manage and market apartment and mixed-use projects in urban locations. Our apartments business has responded to urban consolidation opportunities, providing accommodation options close to transport and employment.

## Retirement Living

Retirement Living, formerly part of the Residential business, became a separate business unit on 1 July 2009. We are a top five retirement living operator within Australia, with over 3,900 established units across Victoria and Queensland. Our portfolio also includes a short-to-medium-term development pipeline of over 2,900 units. The business uses Stockland's land bank for future developments and draws on its residential development capabilities.

## Stockland UK

Our UK business is a property development and asset management company spanning retail, office and mixed-use property. In August 2009 we announced an orderly withdrawal from the UK market, selling assets over the next two to three years.

This survey discloses Stockland's greenhouse gas emissions (GHG) performance for the 2009 financial year beginning 1 July 2008 and ending 30 June 2009. Stockland publishes assured GHG data and commentary as part of its annual Corporate Responsibility and Sustainability Report, and as of October 2009, Australia's National Greenhouse and Energy Reporting Scheme.

### Group and individual responsibility

#### 1.1 WHERE IS THE HIGHEST LEVEL OF RESPONSIBILITY FOR CLIMATE CHANGE WITHIN YOUR COMPANY?

Committee appointed by the Board.

#### 1.2 WHAT IS THE MECHANISM BY WHICH THE BOARD COMMITTEE OR OTHER EXECUTIVE BODY REVIEWS THE COMPANY'S PROGRESS AND STATUS REGARDING CLIMATE CHANGE?

Stockland's overall responsibility for climate change is managed by Stockland's Board and the Board's CR&S Committee. Stockland's CR&S Board Committee assists the Board to oversee Stockland's commitment to operate its business ethically, responsibly and in a sustainable way. Stockland's Board constituted a CR&S Committee on 9 August 2005.

The following Directors were members of the CR&S Board Committee at the close of FY09:

Mr N Greiner (Chair) – Non-Executive Director, Mr G Bradley – Non-Executive Director, Mr B Neil – Non-Executive Director and Mr M Quinn – Managing Director.

The Committee met five times during FY09.

The Secretary of the committee is Ms K Munsie, Executive General Manager, Corporate Affairs. The General Manager, CR&S, General Manager, Health, Safety and Environment, Executive General Manager, Human Resources and other senior executives and managers attend by invitation.

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

The CR&S Board Committee oversees Stockland's CR&S Strategy. Stockland's CR&S Board Committee and Executive Committee have been engaged on the development and progress of our Climate Change Action Plan (CCAP).

The vision for CCAP is to mitigate and adapt to the perceived risks of climate change. The Plan looks at five key climate change themes:

1. Monitor (monitor and report emissions, confirm targets and understand performance)
2. Reduce (reduce emissions, engage the value chain)
3. Adapt (research and respond to potential climate risk)
4. Innovate (low carbon technology, energy efficient markets)
5. Communicate (confirm metrics with stakeholders, clear internal and external messages)

Over the past year, the CR&S Board Committee has made specific requests for research related to climate risk and the potential impacts on our properties and communities, including analysing sea level rise and flood risk and reviewing bushfire risk.

#### Reporting

Monthly CR&S reports, including environmental sustainability issues and progress, are submitted to the Executive Committee and to the Board. The Commercial Property business reports track energy efficiency performance for all office and retail assets. In addition, all stakeholder issues are reported at Board and Executive Committee level.

#### Management

To lead performance within the organisation, Stockland has appointed a number of positions at corporate and business unit level:

- General Manager, Corporate Responsibility and Sustainability;
- National Sustainability Manager, Commercial Property;
- National Sustainability Manager, Residential; and
- Sustainability Manager, Group Design and Delivery.

The purpose of these roles is to lead strategic responses to climate change and other facets of sustainability, and to integrate sustainability practices into our business. This team is indirectly led by the General Manager, CR&S (reporting to an Executive Committee member), who is also responsible for engagement with other senior leaders, including the General Manager, Health, Safety and Environment and the Chief Risk Officer.

### Employee CR&S Committee

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

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

### Stockland UK

Stockland UK developed a CR&S Strategy and established its Employee CR&S Committee in January 2008. Australian sustainability managers engage monthly with members of the Stockland UK Employee CR&S Committee.

Stockland UK developed a CR&S Strategy in December 2007 and commenced reporting as part of Stockland's 2008 CR&S Report.

### Individual Performance

#### 1.4 DO YOU PROVIDE INCENTIVES FOR THE MANAGEMENT OF CLIMATE CHANGE ISSUES, INCLUDING THE ATTAINMENT OF GREENHOUSE GAS (GHG) TARGETS?

Yes, all employees are now required to include CR&S objectives in their performance plans. Objectives are also set in areas including business and financial results, stakeholder engagement, teamwork, and health, safety and environment. These objectives form Stockland's balanced scorecard. Performance against the scorecard is used to determine employees' short-term incentive (CR&S and HSE together are weighted 10–20% of STI for all employees). Ninety-nine per cent of employees undertook performance evaluation in FY09. Stockland will continue to build understanding and action on CR&S in the review of performance scorecards and refreshing of objectives in FY10.

A series of standard CR&S objectives have been developed for each key job family within each business unit. Depending on the job family and band for an employee, objectives may include GHG emissions reduction targets, energy efficiency ratings targets for assets, achieving green building accreditation (Green Star ratings) for new assets and addressing and responding to climate risk as part of project and asset reviews and acquisition assessments.

## Risks and opportunities

### 2.1 DESCRIBE YOUR COMPANY'S PROCESS FOR IDENTIFYING SIGNIFICANT RISKS AND/OR OPPORTUNITIES FROM CLIMATE CHANGE AND ASSESSING THE DEGREE TO WHICH THEY COULD AFFECT YOUR BUSINESS, INCLUDING THE FINANCIAL IMPLICATIONS.

Stockland adopts a rigorous approach to understanding and proactively managing the risks it faces in its business. Stockland's Risk Management Framework is integrated into its day-to-day business processes and functional responsibilities and is supported by a dedicated Group Risk function. This team is responsible for the design and implementation of the Risk Management Framework and for adapting it to changes in the business and the external environment in which Stockland operates. Business units are responsible for integrating the Risk Management Framework within their business processes and systems.

Stockland recognises that climate change presents significant risks to its future operations. Stockland is not a carbon intensive company and is seen by climate change analysts as being exposed to relatively low risk for an ASX100 organisation. However, Stockland continues to explore the nature of perceived climate change risks, and to measure and analyse potential impacts to inform business decisions and operations.

Stockland's Group Risk team focuses on the following areas to identify significant risks and opportunities from climate change and assess the degree to which they could affect the organisation:

- Group Compliance: monitors compliance to relevant laws and regulations and provides regulatory advice and support to enable the organisation to manage its regulatory obligations;
- Business Review: conducts reviews of business processes and systems and recommends enhancements to improve management control and performance; and
- Risk Advisory: provides forward-looking risk advice to the organisation by developing analytical frameworks and management tools that provide insight into material business risks.

An example of Group Risk identifying compliance risk and providing an opportunity and business solution across all three of the above risk areas is Stockland's staged transfer of its GHG emissions data capture responsibilities from the sustainability teams to the group and business unit finance teams. This will support a higher level of rigour in GHG emissions data collection and management. This transfer of responsibility will enable the sustainability team to focus on climate change mitigation and adaptation activities and continue to engage employees and stakeholders on sustainability initiatives.

At a project or asset level, Project Performance Reviews (PPRs) are undertaken by development and asset managers at regular intervals for projects and assets. PPRs encompass a risk review, addressing general environmental risks, including specifically flooding and bushfire risk management (related to climate risks). PPRs are reviewed by business unit senior management and are a means of tracking overall project or asset risks and project progress. Environmental risk analysis encompassing flooding and bushfire management is also assessed as part of asset or project acquisition decision-making processes by business unit acquisition teams and is reviewed by senior and executive management.

## Regulatory risks

### 3.1 DO CURRENT AND/OR ANTICIPATED REGULATORY REQUIREMENTS RELATED TO CLIMATE CHANGE PRESENT SIGNIFICANT RISKS TO YOUR COMPANY?

Yes.

### 3.2 WHAT ARE THE CURRENT AND/OR ANTICIPATED REGULATORY REQUIREMENTS RELATED TO CLIMATE CHANGE AND THEIR ASSOCIATED COUNTRIES/REGIONS AND TIMEFRAMES?

We consider our company to be exposed to the following regulatory risks **in Australia:**

#### **Emission reporting obligations**

The National Greenhouse and Energy Reporting Act 2007 (NGERA) is a national system for reporting greenhouse gas emissions and energy consumption and production by corporations. During FY09 Stockland sought advice in preparation for its first report in October 2009, accounting for emissions in FY09. Stockland's preparation has involved improving the quality of emissions data collection and analysis system, known as the Climate Change Action Plan (CCAP) online reporting and analysis tool. A gap analysis was prepared to identify and confirm that all data sets are captured by the data system. Legal advice was sought on the application of the NGERA to Stockland. We have also engaged extensively with property peers to develop an 'Industry View Document' to assist with the interpretation of the NGERA, and the implementation of NGERA reporting for property organisations and those contracting to property organisations.

In working towards meeting the requirements of NGERA, development managers and facility managers have been engaged, along with many of their impacted contractors to make them aware of these new reporting requirements. As discussed at 2.1, responsibility for GHG emissions data collection is being transferred from the sustainability teams to the group and business unit finance teams to support the level of rigour and accuracy required by the NGERA.

#### **Product efficiency regulations and standards**

The Energy Efficiency Opportunities (EEO) Act 2006 aims to improve the identification and evaluation of energy efficiency opportunities by large energy-using businesses and encourages implementation of cost-effective opportunities. In 2007, Stockland registered for EEO participation and set out a reporting schedule. Stockland's reporting schedule was approved by government in 2008. Stockland commenced training and identification of opportunities to implement energy efficiency initiatives across the retail and office portfolios. Stockland continues to identify opportunities and has implemented some of the identified initiatives. Stockland's EEO report is available on its website. Stockland submitted its first formal report to government in December 2008.

The Building Code of Australia (BCA) has established minimum requirements for energy efficiency in new buildings. Specific requirements vary from state to state. Significant draft changes to the BCA's energy efficiency provisions were announced in June 2009. Proposed changes to the code include requirements for increased energy efficiency performance and requirements for renewable energy. Stockland has engaged with peers and industry groups to better understand the implications of the proposed changes.

Stockland's Residential Communities, Apartments and Retirement Living businesses are subject to a range of state-based energy efficiency requirements. These state-based requirements vary in focus, leading to different built form outcomes in different states. For example, there is a focus on built fabric thermal performance in Victoria's 5 Star standard for new houses. The standard results in design solutions concerned mostly with the performance of the built fabric. New South Wales' BASIX tool results in solutions concerned with the 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, potentially at lower cost, while ensuring overall emissions are reduced.

The Council of Australian Governments (COAG) released a National Strategy on Energy Efficiency on 2 July 2009. The strategy addresses a vast range of topics including proposed increases in building code requirements, reporting legislation, rating tool harmonisation, green building incentives, government procurement policies, appliance labelling regulation, innovation programs, renewable/decentralised energy programs and targets, skills programs and market transformation. Aspects of the strategy with significant implications for Stockland include improving consistency in energy-efficiency standard setting and performance assessment frameworks, introducing mandatory disclosure of energy performance in existing commercial buildings, as well as introducing mandatory disclosure of eco-efficiency performance of residential buildings at point of sale. The strategy also proposes increasing energy efficiency standards for residential buildings to 6 Stars nationally. The strategy sets out the intent of proposals only. There is significant work yet to be done in setting out the detail of legislation and how it will be implemented. Stockland has welcomed the proposed improvements to rating tool harmonisation and GHG emissions metric consistency and will continue to engage with government, sharing views and experiences towards the effective development of standards and simplified disclosure protocols.

### General environmental regulations, including planning

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. The Victorian coastal strategy now requires consideration of sea level rise as part of planning assessment, proposing a minimum 100 year sea level rise estimate of 80cm be applied for planning purposes. The New South Wales (NSW) government has prepared a draft sea level risk policy statement, and includes reference to benchmarks of a rise of 40cm by 2050 and 90cm by 2100 relative to 1990 levels. Similar statements and policies are being developed by other state and local governments. The federal government is also exploring policy related to climate change adaptation, specifically sea level risk and storm surge.

### Cap and trade schemes

Due to a lack of bipartisan support for the Carbon Pollution Reduction Scheme (CPRS), the Australian Government has delayed the introduction of the scheme and will not introduce the CPRS until after 2012 (the end of the current commitment period of the Kyoto Protocol). The emissions trading scheme has been designed to place a limit on the amount of carbon pollution industry can emit. Under the proposed scheme, Stockland will not be obliged to participate directly in the scheme (as Stockland's emissions are principally Scope 2 rather than Scope 1) however Stockland will be exposed to downstream cost impacts, including increased costs of energy and emissions intensive building materials. Stockland has sought external advice to model the likely costs impacts of the CPRS, specifically in relation to rising energy costs. Stockland is using this data to inform its cost benefit analysis of the ongoing energy efficiency program for office and retail assets. This modelling is helping to understand how the organisation might effectively roll out low carbon technology, such as co/tri-generation across a number of assets.

### Product labeling regulations and standards

The Australian federal government's Ministerial Council on Energy agreed in December 2007 to a package of energy efficiency measures under the National Framework for Energy Efficiency and as part of the National Strategy on Energy Efficiency. This initiative includes mandatory disclosure of the energy performance of buildings. The mandatory disclosure of energy efficiency of commercial buildings and their tenancies is proposed to be phased in during the second half of 2010. This will require building owners selling or leasing office space over 2000m<sup>2</sup> to obtain a Building Energy Efficiency Certificate. The certificate will include a NABERS Office Energy base building rating, information on tenancy lighting efficiency and potential energy saving suggestions. Mandatory disclosure of energy, greenhouse and water performance for residential properties at the time of sale or lease is proposed to be phased in during 2011. It is expected that mandatory disclosure for other building types, including shopping centres, will be phased in, in future years.

### Voluntary agreements

The Green Star Business Partnership Agreement is a voluntary agreement that commits Stockland to using the Green Star tool to rate all newly developed office buildings, and publicly report on its Green Star achievements.

### Indirect exposure through suppliers and clients

The Australian government introduced green lease schedules in 2006. Green leases are a management mechanism for tenants and building owners to monitor and meet a building's energy target annually. Currently federal government agencies are required to specify minimum performance standards (generally a NABERS Office Energy rating of 4.5 Stars) in contracts and leases for new buildings, major refurbishments and new leases for over 2000m<sup>2</sup>. It is anticipated that the government will tighten standards through the proposed review of the Energy Efficiency in Government Operations policy. Stockland's ongoing commitment to improve the energy efficiency of its office buildings (as rated by the NABERS Office Energy tool) seeks to meet demand from government tenants for high eco-performance buildings and tenancies.

We consider our company to be exposed to the following regulatory risks in the United Kingdom:

### Emissions reporting obligations

The United Kingdom (UK) Climate Change Bill became law in November 2008. The purpose of the act is to enable a transition towards a low carbon economy, signalling the UK's level of commitment to reducing global emissions. Provisions of the Act include legally binding targets (26% by 2020 and 60% by 2050 against a 1990 baseline) and a carbon budgeting system, capping emissions over a series of five year periods.

The Carbon Reduction Commitment (CRC) is the UK's first mandatory emissions trading scheme, introduced to support the goals of the UK Climate Change Act. It is estimated that around 5,000 organisations will initially fall within the scope of the CRC. The scheme is compulsory for organisations using more than 6,000 MWh/year of half-hourly metered electricity. The intention of the legislation is to encourage large organisations to reduce their fixed source energy consumption. Commencing in April 2010, the CRC will require companies to purchase carbon allowances to cover their projected carbon emissions for each coming 12 month period. At the close of each period, companies will be required to disclose their actual electricity usage. Organisations will then be ranked according to energy efficiency achievement, with revenue from the scheme redistributed to participants based on this performance. To prepare for the likelihood of such a requirement, Stockland UK commenced collating and reporting on carbon data in 2008. Stockland anticipates disclosing energy usage under the CRC in 2010. The CRC requires reporting for all half-hour meters (HHM) settled on the half hourly market.



## Regulatory risks (continued)

### Carbon taxes

The Climate Change Levy (CCL) 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.

### Product labeling regulations and standards

Since 1 October 2008, all buildings when bought, sold or rented require an Energy Performance Certificates (EPC). Larger public buildings are also required 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 is fully compliant with this legislation.

### Product efficiency regulations and standards

Local government requirements vary widely across the UK. Requirements are becoming increasingly prescriptive and complex. In the UK, the Merton Rule has been adopted by a number of councils, mandating the use of renewable energy on site (requiring that up to 20% of the total project's energy demand be provided through renewable energy) to reduce CO<sub>2</sub>-e emissions.

---

### 3.3 DESCRIBE THE WAYS IN WHICH THE IDENTIFIED RISKS AFFECT OR COULD AFFECT YOUR BUSINESS AND YOUR VALUE CHAIN.

The regulatory risks identified in 3.2 above affect Stockland's primary areas of direct activity, as property owner, manager and developer, as well as our areas of influence, which include fund manager, design, builder (principal contractor), commercial office leasing, upstream products (including building materials) and downstream services (including cleaning and security). In response to these risks, Stockland recognises the importance of clearly setting expectations at all levels of Stockland's value chain in relation to energy efficiency, climate change and broader sustainability performance. For Stockland, it is important to build awareness and provide education and training around emissions/energy efficiency disclosure and environmental legislation both internally and externally. This includes engaging with suppliers to enable awareness of, and compliance with, legislative requirements. Stockland also recognises the importance of seeking legal advice on emerging federal, state and local government regulation and undertaking research and analysis as part of acquisition procedures.

Cost impacts are likely to affect key supply groups, notably energy suppliers (electricity, gas and fuel) and also building contractors through the likely rising costs of building materials. Growing regulatory compliance requirements (particularly an array of reporting requirements in the property and construction sectors) are likely to place a financial burden on a range of suppliers.

---

### 3.4 ARE THERE FINANCIAL IMPLICATIONS ASSOCIATED WITH THE IDENTIFIED RISKS?

Yes.

---

### 3.5 PLEASE DESCRIBE THEM.

#### Regulatory non-compliance

The National Greenhouse and Energy Reporting System non-compliance attracts maximum civil penalties of \$220,000 and daily penalty provisions for continuing offences. Chief Executive Officers can also be liable. Non-compliance with the Energy Efficiency Opportunities Program carries a fine of \$110,000 per offence.

#### Inconsistency in regulations

Planning approvals and climate change assessments (state and local government) can cause development approval delays due to the inconsistent application of climate change mitigation and adaptation requirements across different jurisdictions. Project delays can lead to significant cost impacts.

#### Inability to service legislation

Under the National Strategy on Energy Efficiency, government has proposed a significant increase in regulation through the disclosure of building ratings. Sufficient skilled personnel required to service energy efficiency performance ratings under this reporting requirement does not currently exist. This may result in delayed ratings and exposure to civil penalties.

#### Increase in standards

The Building Code of Australia's increase in energy efficiency requirements and state-based residential energy efficiency requirements will result in an increase in building costs.

### 3.6 DESCRIBE ANY ACTIONS THE COMPANY HAS TAKEN OR PLANS TO TAKE TO MANAGE OR ADAPT TO THE RISKS THAT HAVE BEEN IDENTIFIED, INCLUDING THE COST OF THOSE ACTIONS.

#### Industry and government engagement

Stockland monitors regulatory risk through direct engagement with government and through participation in industry groups such as the Property Council of Australia (PCA) and the Green Building Council of Australia (GBCA).

Regulatory risk associated with climate change has also been identified through Stockland's internal risk mapping exercises by its Group Risk team.

As a property owner, manager and developer, Stockland's biggest opportunity to reduce its impact on climate change is through energy efficiency. Government also views energy efficiency in the property sector as a significant opportunity to reduce national GHG emissions. Over the past year, government has maintained, implemented and/or drafted legislation to improve the energy efficiency of buildings. For example, energy efficiency standards for housing have been increased.

#### Supplier engagement

A performance management tool for suppliers who provide services to our office and industrial businesses was formally implemented in March 2007. This tool addresses compliance in the following areas:

- Corporate Responsibility and Sustainability (CR&S);
- Occupational Health and Safety (OH&S);
- Service Level Agreement (SLA)/Key Performance Indicator (KPI) Adherence; and
- Financial and administrative performance.

The management tool has been refined and ownership now resides with Stockland's Commercial Property operating team. The online tool was implemented in December 2008 and measures the performance of cleaning, security, waste, fire and heating, ventilation and cooling equipment and service suppliers.

The CR&S aspect of the tool has been customised according to types of services provided. For example, cleaning service suppliers are performance rated on waste management and safety management.

### 4.1 DO CURRENT AND/OR ANTICIPATED PHYSICAL IMPACTS OF CLIMATE CHANGE PRESENT SIGNIFICANT RISKS TO YOUR COMPANY?

Yes.

### 4.2 WHAT ARE THE CURRENT AND/OR ANTICIPATED SIGNIFICANT PHYSICAL RISKS, AND THEIR ASSOCIATED COUNTRIES/REGIONS AND TIMESCALES?

We consider our company to be exposed to the following physical risks **in Australia** (as identified by the Intergovernmental Panel on Climate Change in its Fourth Assessment Report).

- Changes in frequency of extreme weather events;
- Changes in precipitation patterns; and
- Uncertainty of physical risks.

### 4.3 DESCRIBE THE WAYS IN WHICH THE IDENTIFIED RISKS AFFECT OR COULD AFFECT YOUR BUSINESS AND YOUR VALUE CHAIN.

#### Changes in frequency of extreme weather events

Warmer/hotter days and fewer cold days will result in reduced energy demand for heating, increased demand for cooling and declining air quality in cities. Implications for the property sector will be increased demands on ventilation and air conditioning equipment and higher operating costs due to increased plant wear and tear and increased energy consumption. For our Residential business, it will result in increased demand for cooling, leading to the likelihood of greater uptake of air-conditioning, which will mean greater peak demand on energy, potentially impacting security of energy supply at peak periods.

Heat waves in Australia are virtually certain to increase in frequency and intensity. This will result in a reduction in quality of life for people residing in warm areas without access to well designed housing and/or cooling technologies. Implications for the property sector will be increased demand for cooling and for climate responsive buildings, particularly housing, and potentially an increased demand for energy.

## Physical risks (continued)

Intense tropical cyclone activity increases will result in disruption by flood and high winds and subsequent withdrawal of risk coverage in vulnerable areas by private insurers. It could also result in potential population migrations and loss of property. Weather related events contribute to a large portion of insurance claims. Increased frequency and impact of extreme weather may lead to increasing insurance premiums and the possibility of not being able to insure property in vulnerable locations.

Increased incidence of extreme high sea level will result in a balance between the costs of coastal protection versus the costs of land-use relocation. It also has the potential for movement of populations and infrastructure. The initial impact on the property sector from sea level rises is likely not to be from the gradual rise in average sea level, but from increased extreme weather events leading to storm surge. Rising sea levels will exacerbate the impact of storm surges and coastal flooding as well as lead to increased rates of erosion and subsidence. Coastal properties face the risk of erosion and subsidence. Coastal erosion and subsidence has already threatened property on the North Coast of NSW, Australia.

### Changes in precipitation patterns

Heavy precipitation events will result in the disruption of settlements, commerce, transport and societies due to flooding, pressures on urban and rural infrastructures and a loss of property. Increased humidity may lead to increased demands on air conditioning equipment and 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. Risk of coastal flooding will also be exacerbated by rising sea levels and storm surge. Increased inundation may require improvements to existing assets, and lead to increased building standards to ensure that roofing, structural and drainage systems are sufficiently resilient. 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 situated close to 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 required to relocate if faced with the risk of increased flooding frequency and intensity. On-site water management may need to be designed to cope with more extreme events, in order to reduce the threat of flooding and mitigate downstream impacts.

Drought increases will result in water shortage for settlements, industry and societies and is also likely to increase the risk of bushfires. The Intergovernmental Panel on Climate Change, in its Fourth Assessment Report, 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." 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 increased fire risk. Another implication of drought increases is scarcity of water and the need for sustained water restrictions and increased investment by utilities in desalination plants. The combined result of scarcity and cost of new technology is leading to increased water pricing.

### Uncertainty of physical risks

Sea level change and flood risk pose a physical risk to built form as well as a planning risk for the wider property sector, potentially leading to reduced ability to develop coastal land. With predictions for a greater number of days of heat, humidity, wind and precipitation, conditions going beyond longstanding design parameters, amenity and functionality of assets may be impacted. Stockland is taking this into account in new developments in designing for a changing climate and through improving the weather resilience of existing assets (most notably shopping centres in Queensland).

---

#### 4.4 ARE THERE FINANCIAL IMPLICATIONS ASSOCIATED WITH THE IDENTIFIED RISKS?

Yes.

---

#### 4.5 PLEASE DESCRIBE THEM.

The larger financial implications associated with the identified risks relate to:

- Energy costs, as heating, cooling and ventilation requirements change;
- Climate change assessments, which are increasingly required as part of the development approval process; and
- Designing to anticipated higher standards in response to future risks such as increased flooding and storm surge.

## Physical risks (continued)

### 4.6 DESCRIBE ANY ACTIONS THE COMPANY HAS TAKEN OR PLANS TO TAKE TO MANAGE OR ADAPT TO THE RISKS THAT HAVE BEEN IDENTIFIED, INCLUDING THE COST OF THOSE ACTIONS.

Stockland recognises the need to address the potential physical risks of climate change and explore mechanisms of adaptation.

Stockland has engaged with specialists to examine these physical risks. In late 2008, our insurance brokers briefed the CR&S Board Committee on climate change risk. They shared data on recent severe weather events in Australia, and discussed risk mitigation currently undertaken.

For example, Stockland's shopping centres in North Queensland are at risk of cyclone impact. Stockland has undertaken work on centre roofs to improve the capacity to withstand such a weather event. Stockland will continue to review the structural integrity of assets located in extreme climate zones.

Stockland is required to consider local and state planning policies that address potential physical risks such as flooding and bushfire. As set out in its FY10 CR&S Strategy and specifically its Climate Change Action Plan, Stockland has undertaken a series of climate change risk studies. These studies have examined sea level rise and storm surge risk in coastal areas, and exposure of communities and assets to bushfire risk. The outcomes of this research are now informing development management practices, including monitoring of risks via regular project and asset reviews, and environmental risk reviews as part of acquisition processes. Stockland, in partnership with the CSIRO, has sought government funding to undertake further extensive research into the physical impacts of climate change.

## Other risks

### 5.1 DOES CLIMATE CHANGE PRESENT OTHER SIGNIFICANT RISKS – CURRENT AND/OR ANTICIPATED – FOR YOUR COMPANY?

Yes.

### 5.2 WHAT ARE THE CURRENT AND/OR ANTICIPATED OTHER SIGNIFICANT RISKS AND THEIR ASSOCIATED COUNTRIES/REGIONS AND TIMESCALES?

We consider our company to be exposed to the following other significant risks **in Australia:**

- Changes in the availability and costs of goods and services;
- Market risks;
- Reputational risks; and
- Unpredictability of risks.

### 5.3 DESCRIBE THE WAYS IN WHICH THE IDENTIFIED RISKS AFFECT OR COULD AFFECT YOUR BUSINESS AND YOUR VALUE CHAIN.

#### **Changes in the availability and costs of goods and services**

Stockland anticipates the cost of energy to rapidly increase in the coming years. Stockland also anticipates that the cost of carbon intensive building materials would increase under an emissions trading scheme. Stockland recognises that cost increases may vary, as a consequence of compensation to emissions intensive trade exposed industries.

With increased demand on energy and water services in response to changing climate conditions and other needs, security of energy and potable water supply is a growing risk. It is important that Stockland prepares for these possibilities (as well as increased utility costs) through exploring alternative solutions such as decentralised low carbon energy supply and water supply.

## Other risks (continued)

### Market risks

In some facets of Stockland's business, 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. In 2007 Stockland interviewed a range of office tenants – with responses broadly confirming interest in sustainable workspaces.

### Reputational risks

Reputational risk is growing, as awareness of the impacts of climate change grows. Stakeholders are increasingly looking to understand what organisations are doing to manage climate change risks. This is particularly important as business partners and investment advisers place increasing value on intangible dimensions such as image, brand and reputation. Reputational risks ultimately translate into financial risks. During 2009 and 2010, a number of reports and surveys were undertaken and published on behalf of investors to review the environmental performance of the property sector. These include the study "ASX-Listed Office Trusts: Does Green Pay?" by Citi, and the development of a global "Environmental Real Estate Index" based on a survey by Maastricht University, commissioned by APG Asset Management, PGGM Investments and the Universities Superannuation Scheme. These studies include comparative performance data and commentary on specific aspects of energy efficiency performance and climate change action by real estate investment trusts (REITs).

### Unpredictability of risks

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

---

#### 5.4 ARE THERE FINANCIAL IMPLICATIONS ASSOCIATED WITH THE IDENTIFIED RISKS?

Yes.

---

#### 5.5 PLEASE DESCRIBE THEM.

Rising costs of energy, water and carbon intensive building materials, as detailed in 5.3.

---

#### 5.6 DESCRIBE ANY ACTIONS THE COMPANY HAS TAKEN OR PLANS TO TAKE TO MANAGE OR ADAPT TO THE OTHER RISKS THAT HAVE BEEN IDENTIFIED, INCLUDING THE COSTS OF THOSE ACTIONS.

Stockland has engaged advisers to model future energy costs to help inform business decisions, particularly investment in energy efficiency and low carbon energy solutions such as co/tri-generation.

With regard to security of energy and potable water supply, Stockland has engaged with industry leaders and scientists to explore alternatives. Areas of consideration include establishing local energy and water infrastructure within residential communities, or support/invest in shared low-carbon energy supply among a cluster of buildings located within an urban precinct.

On planning approval risk, Stockland engages with its stakeholders, including all levels of government, the communities in which Stockland operates and industry and scientific leaders to improve understanding of climate change assessment risks.

In response to growing expectations from our tenants, Stockland launched a green tenant fitout guide in 2007 to provide guidance to our retail tenants. This initiative has led to engagement with retailers on environmental sustainability, and the fitting-out of eco-efficient tenancies.

Stockland has partnered with the NSW Department of Environment and Climate Change (DECC) to promote a business program called Sustainability Advantage. The program is designed to help Stockland's retail tenants understand sustainability and contribute value to their businesses. Participants have the opportunity to improve their business performance through innovation, lower costs, improved productivity and enhanced reputation as a supplier and employer of choice.

## Regulatory opportunities

### 6.1 DO CURRENT AND/OR ANTICIPATED REGULATORY REQUIREMENTS RELATED TO CLIMATE CHANGE PRESENT SIGNIFICANT OPPORTUNITIES FOR YOUR COMPANY?

Yes.

### 6.2 WHAT ARE THE CURRENT AND/OR ANTICIPATED SIGNIFICANT REGULATORY OPPORTUNITIES AND THEIR ASSOCIATED COUNTRIES/ REGIONS AND TIMESCALES?

We have identified the following significant regulatory opportunities **in Australia**:

- Emissions reporting obligations;
- Product labeling regulations and standards;
- Product efficiency regulations and standards; and
- General environmental regulations, including planning.

### 6.3 DESCRIBE THE WAYS IN WHICH THE IDENTIFIED OPPORTUNITIES AFFECT OF COULD AFFECT YOUR BUSINESS AND YOUR VALUE CHAIN.

#### Emissions reporting obligations

As a result of thorough carbon data management, Stockland was prepared for the introduction of National Greenhouse and Energy Reporting Act (NGERA). Stockland is now implementing more streamlined and accurate GHG emissions reporting systems across the organisation. The introduction of NGERA has also helped Stockland better understand emissions associated with site preparation, including emissions from the operations of civil contractors, across its residential communities portfolio.

#### Product labeling regulations and standards

Stockland is committed to minimising the environmental impact of its assets and raising the environmental performance of its commercial property portfolio. This has resulted in the business obtaining NABERS Energy and Water ratings for a majority of its office assets. This has enabled Stockland to be well prepared for the introduction of mandatory disclosure of commercial building energy efficiency, which is currently being considered by the Australian government. The NABERS Water ratings obtained by the business also place Stockland in a good position if the Australian government were to introduce regulation on the water efficiency disclosure and performance.

#### Product efficiency regulations and standards

Stockland's continued identification of specific energy efficiency opportunities through the Energy Efficiency Opportunities (EEO) Act has generated a substantial list of abatement actions for the business. Stockland has used this information to create its own carbon abatement cost curve. The cost curve will inform Stockland's decision-making on undertaking energy efficiency projects, and establishing targets and developing communications around Stockland's carbon abatement potential and performance.

Stockland's continued commitment to improved eco-efficiency performance has led to recognition as an industry leader in sustainability performance. Stockland is therefore well placed to work with the Australian government on shaping better regulation for the industry and is often requested to assist government in assessing regulatory outcomes.

#### General environmental regulations, including planning

In response to the increase in planning approval requirements and climate change assessments, Stockland is working closely with federal, state and local governments to share knowledge on climate change risk, carbon and energy reporting, and successful energy efficiency practices, to inform and help shape pragmatic and effective policy and regulation.

The opportunities identified could affect Stockland and its stakeholders in the following ways:

**Employees:** a wider range of Stockland employees are now directly involved in aspects of the environmental sustainability performance of the organisation, particularly finance teams in the collection and management of GHG emissions data.

**Investors:** as an industry leader, investors may view Stockland as creating long-term value by being ahead of regulation, managing risks and creating product opportunities once regulation is introduced.

**Customers:** the transparency of Stockland's portfolio performance will ensure that its customers are able to make better informed decisions, and benefit from more efficient operations. Increased disclosure is likely to grow awareness of efficient buildings, and while current evidence is inconclusive (refer to Citi's study "ASX-Listed Office Trusts: Does Green Pay?") it is anticipated that the marketplace will begin to place a value on more efficient assets. Already Stockland has been able to attract and retain office tenants through leasing energy efficient green tenancies (where office buildings have Green Star ratings and/or high NABERS Energy Office ratings).

**Government:** through both direct engagement and membership in industry associations, Stockland will continue to advise and engage with government on the best practice regulation of the sector.

## Regulatory opportunities (continued)

Suppliers and Partners: disclosure requirements and an increase in minimum standards will enable Stockland to have greater visibility of the environmental impacts of its supply chain, highlighting those supplier groups that might benefit from increased engagement – particularly on energy and greenhouse gas emissions performance.

---

### 6.4 ARE THERE FINANCIAL IMPLICATIONS ASSOCIATED WITH THE IDENTIFIED OPPORTUNITIES?

Yes.

---

### 6.5 PLEASE DESCRIBE THEM.

The financial implications of the opportunities identified are often paid back over extended time periods and/or can limit potential costs.

Stockland's commitment to proactive engagement with its stakeholders, including government, is likely to support straightforward project approval processes. This helps to limit misunderstandings, lack of awareness of potential impacts and other issues that can slow or stall the progress of projects. This can lead to significant cost impacts.

Disclosure of energy performance may lead to awareness of ratings such that an increased number of tenants are increasingly interested in seeking eco-efficient tenancies to lease. This may lead to the increased value of these eco-efficient assets over time.

---

### 6.6 DESCRIBE ANY ACTIONS THE COMPANY HAS TAKEN OR PLANS TO TAKE TO EXPLOIT THE OPPORTUNITIES THAT HAVE BEEN IDENTIFIED, INCLUDING THE INVESTMENT NEEDED TO TAKE THOSE ACTIONS.

Stockland recognises that its comprehensive reporting program enables it to identify energy efficiency and carbon abatement opportunities.

Stockland's commitment to sustainability measurement and transparency has led to government agencies inviting the organisation to share case studies on energy efficiency, assist with growing awareness of climate change risks, and provide feedback on proposed initiatives and regulations.

## Physical opportunities

---

### 7.1 DO CURRENT AND/OR ANTICIPATED PHYSICAL IMPACTS OF CLIMATE CHANGE PRESENT SIGNIFICANT OPPORTUNITIES FOR YOUR COMPANY?

Yes.

---

### 7.2 WHAT ARE THE CURRENT AND/OR ANTICIPATED SIGNIFICANT PHYSICAL OPPORTUNITIES AND THEIR ASSOCIATED COUNTRIES/REGIONS AND TIMESCALES?

- Sustainable design solutions;
- Green Building Fund;
- Demand for 'green buildings'; and
- Sustainable interior design.

---

### 7.3 DESCRIBE THE WAYS IN WHICH THE IDENTIFIED OPPORTUNITIES AFFECT OR COULD AFFECT YOUR BUSINESS AND YOUR VALUE CHAIN.

#### **Sustainable design solutions**

Stockland recognises 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.

Stockland has also seen growing interest from current and prospective residents in our residential communities and apartments projects. The water crisis and subsequent restrictions have 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.

## Physical opportunities (continued)

### Green Building Fund

The Green Building Fund is a federal government program to help reduce energy consumption and greenhouse gas emissions associated with the operations of commercial office buildings. Grants from the Green Building Fund are used to refit commercial office buildings with energy efficient solutions to help reduce energy consumption. Stockland's funding applications for 452 Flinders Street, 175 Castlereagh Street and Garden Square in Sydney were successful. The works are anticipated to be completed in FY10.

### Demand for 'green buildings'

Stockland has seen evidence in the marketplace of growing interest in green buildings. According to a report by Jones Lang LaSalle "The current market conditions are driving a continued focus on sustainability, with higher vacancies shifting the focus to tenant attraction and retention." (*The Green Phoenix: A flight to quality in challenging times*, Jones Lang LaSalle, April 2009).

Stockland continues to engage with its tenants and customers through surveys where many of the responses to the questions around the value of green buildings support the business case to (continue to) act, and indicates an emerging willingness to pay. In turn, tenants expect us to lead by example through eco-efficient building management and transparent, public reporting on performance.

In response to growing interest from retail tenants, Stockland created a Green Fitout Guide. The guide has been developed to raise awareness among 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. The guide has been met with a positive response, with a number of national retail chains seeking to actively work with us to create more energy efficient stores.

Stockland is currently working on formalising its 'green lease' structure to align with the interests of both Stockland and its tenants.

### Sustainable interior design

Our head office in Sydney has been designed to be environmentally preferable with a focus on energy, water, waste, materials, transport and indoor environmental quality. The offices were awarded Australia's first 6 Star Green Star interior in early 2009, and embody our commitment to sustainability – particularly energy efficient workplaces and office buildings. The public attention that this project has received has enabled us to engage with peers, government and our tenants on the benefits of greener buildings.

The opportunities identified above could affect Stockland and its stakeholders in the following ways:

Employees: training and engagement in the area of climate change adaptation and energy efficiency with regard to design and procurement is ongoing.

Customers: Stockland will continue to engage with its customers on opportunities in relation to leasing and green fitouts. In some cases we are asked by tenants to supply green options or help tenants realise their green goals including assistance with attaining NABERS tenancy ratings and/or Green Star Interior ratings.

Government: As government continues to provide funding for carbon abatement opportunities in the built environment, Stockland will need to continue to identify opportunities and technologies that will improve Stockland's portfolio performance to successfully attain funding.

Suppliers and partners: As the demand for 'green' buildings and regulation requiring the disclosure of building performance increases, so too does the demand for 'greener' materials and technologies. Often the demand for sustainable products and ratings is not met to the standard with which the label 'green' implies. The skills and resources required to service the demand for energy efficiency ratings, servicing sustainable technologies, or supplying resilient materials and solutions in the marketplace can be limited.

---

### 7.4 ARE THERE FINANCIAL IMPLICATIONS ASSOCIATED WITH THE IDENTIFIED OPPORTUNITIES?

Yes.



## Physical opportunities (continued)

### 7.5 PLEASE DESCRIBE THEM.

As identified in 7.3 above, energy efficiency programs can lead to significant savings over the medium to longer term. A price on carbon will provide some support for the business case for energy efficiency initiatives.

The Green Building Fund allows Stockland to strive for larger-scale carbon abatement opportunities that may not have been available without government funding.

In Jones Lang LaSalle's annual Survey of Investor Sentiment (November 2008), 18% of investors said that they will still pay more for a sustainable building, all other things being equal, compared to 29% in 2007. A further 50% of investors continue to consider sustainability as a 'tie-breaker' factor in investment decisions." (*The Green Phoenix: A flight to quality in challenging times*, Jones Lang LaSalle, April 2009).

### 7.6 DESCRIBE ANY ACTIONS THE COMPANY HAS TAKEN OR PLANS TO TAKE TO EXPLOIT THE OPPORTUNITIES THAT HAVE BEEN IDENTIFIED, INCLUDING THE INVESTMENT NEEDED TO TAKE THOSE ACTIONS.

Stockland recognises that an early response to the physical impacts of climate change is important towards 'future-proofing' our business. To address emerging or likely future standards, Stockland has rated its office buildings annually using the National Australian Built Environment Rating System (NABERS), and has improved ratings on a year-on-year basis, reducing energy costs and retaining government tenants with requirements for high performing NABERS-rated accommodation. We have also continued to actively support the development of the Australian Green Star tool through sponsorship of new tools. Stockland is particularly excited at the prospect of the Green Star Communities tool and its potential application to Stockland's residential communities.

## Other opportunities

### 8.1 DOES CLIMATE CHANGE PRESENT OTHER SIGNIFICANT OPPORTUNITIES – CURRENT AND/OR ANTICIPATED – FOR YOUR COMPANY?

Yes.

### 8.2 WHAT ARE THE CURRENT AND/OR ANTICIPATED OTHER SIGNIFICANT OPPORTUNITIES AND THEIR ASSOCIATED COUNTRIES/REGIONS AND TIMESCALES?

Stockland recognises that taking action on climate change and the integration of the wider concept of sustainability into business activities contributes to engagement of its employees. Our CR&S function is focused on enabling all employees to contribute to the delivery of our CR&S strategy. Rather than establishing a stand-alone team, our approach is to integrate its CR&S actions such that sustainability performance is the responsibility of all employees.

Stockland's annual 'Our Voice' survey measures employee engagement. In FY09 Stockland's employee engagement score was 82%. The FY09 employee engagement results relating to climate change and corporate responsibility and sustainability were:

- Employees who believe Stockland is socially responsible: 92%;
- Employees who believe Stockland is environmentally responsible: 94%; and
- Employees who think Stockland achieves the right balance between social, environmental and financial responsibilities: 86%.

### 8.3 DESCRIBE THE WAYS IN WHICH THE IDENTIFIED OPPORTUNITIES AFFECT OR COULD AFFECT YOUR BUSINESS AND YOUR VALUE CHAIN.

How Stockland's employees think, feel and act is vital to Stockland's success. Talent attraction and retention can often relate to how Stockland performs on CR&S and how employees feel about the company for which they work.

Stockland has developed a Group CR&S strategy and aligned business unit sustainability policies. To ensure that the strategy and business unit policies are implemented, employees need to be engaged and educated on the importance and benefits of new directions. To ensure that CR&S is embedded in employee activities, each employee is required to set a CR&S objective within their performance plans.

#### Are there financial implications associated with the identified opportunities?

High employee engagement is linked to employees' willingness to "go the extra mile" and a high performing organisation.

## 9.1 PLEASE DESCRIBE HOW YOUR OVERALL GROUP BUSINESS STRATEGY LINKS WITH ACTIONS TAKEN ON RISKS AND OPPORTUNITIES (IDENTIFIED IN QUESTIONS 3 TO 8), INCLUDING ANY EMISSIONS REDUCTION TARGETS OR ACHIEVEMENTS, PUBLIC POLICY ENGAGEMENT AND EXTERNAL COMMUNICATIONS.

Stockland's CR&S strategy is revised annually. In April 2009 the strategy was revised to better align with the reporting year and to inform the commitments set out in its 2009 CR&S Report. Stockland also reflected on how to best address the amended sustainability assurance standard, AA1000AS and more effectively encompass the principles associated with the standard:

- Inclusivity: Understanding who our stakeholders are;
- Materiality: Ensuring that we have addressed the key issues of interest or concern; and
- Responsiveness: Accounting for how we have addressed these key issues.

An annual external stakeholder forum informs Stockland's CR&S strategy-setting program. The forum provides feedback on our performance, as well as feedback on emerging key issues and expectations for the coming year. This process also assists with determining Stockland's material CR&S issues. Our materiality process also includes an internal review (including an extensive employee survey 'Our Voice'), analysis of external surveys from across our business, and peer review.

Stockland's CR&S strategy identifies five enduring CR&S themes within which its material issues are identified and business policies developed:

1. Identifying, understanding and engaging with our stakeholders
2. Engaging with our people
3. Effective working relationships with our investors, customers, suppliers and government
4. Strengthening our place within the community
5. Reducing our impact on the environment

As part of the CR&S Strategy, Stockland has developed a Climate Change Action Plan (CCAP) with the vision to mitigate and adapt to the perceived risks of climate change. CCAP covers five key strategic areas:

1. Monitor (monitor and report emissions, confirm targets and understand performance)
2. Reduce (reduce emissions, engage the value chain)
3. Adapt (research and respond to potential climate risk)
4. Innovate (invest in low carbon technology and participate in energy efficient markets)
5. Communicate (confirm metrics with stakeholders, provide clear internal and external messages)

These strategic areas are linked to specific actions and targets, including:

- Attain a 4.5 star average NABERS Office Energy rating for the office portfolio by FY14.
- Reduce greenhouse gas emissions intensity and energy use intensity (per m<sup>2</sup>) across the Commercial Property portfolio by 20% by FY14. It is anticipated that Commercial Property greenhouse gas emissions will be maintained at or below FY09 levels by FY14 (accounting for anticipated increase in developed floor space).
- Continue to invest in energy efficiency across assets, achieving a balance between targeting the most cost effective initiatives and piloting emerging technology with long-term potential.
- Continue to advocate and participate in market-based mechanisms designed to encourage and reward energy efficiency.
- Expand work with suppliers and tenants on energy efficiency.
- Pilot emerging technology and capture lessons learned to inform the business case for wider application across our operations.
- Seek feedback on the effectiveness of the metrics used.
- Implement plans to mitigate potential risks of climate change. Continue to research emerging risks.
- Maintain dialogue with peers and government to inform effective policy, regulation and tools.

As part of its Climate Change Action Plan, Stockland has developed a carbon abatement cost curve to identify actions to achieve significant emissions cuts at the lowest cost across its portfolio. The cost curve is based on evidence from energy reduction projects, research and energy use analysis across Stockland's Commercial Property portfolio.

Stockland's CCAP Online Tool (GHG database) has been further refined over the past year. The tool has been tailored to meet the requirements of emerging reporting requirements. We also completed the expansion of the tool to enable scenario modelling, helping to inform emissions reduction targets.

Stockland is committed to better understanding and mitigating potential risks associated with climate change. Understanding emerging risks is key to ensuring Stockland owns, manages and develops resilient buildings and communities that are able to withstand the future impacts of climate change. Stockland has commissioned research into both sea level rise and bushfire risk. In response to this analysis, flooding and bushfire risk assessments are now included as part of regular project and asset reviews.

To ensure consistency in sustainability approach and delivery across Stockland, specific business unit sustainability policies have been developed, including a specific focus on climate change. These policies are supported by consistent operating standards, embedding sustainability in day-to-day operations.

## Strategy (continued)

### 9.2 DO YOU HAVE A CURRENT EMISSIONS REDUCTION TARGET?

Yes.

### 9.6 IF SO, PLEASE COMPLETE THE TABLE.

Target type	Value of target	Unit	Base year	Emissions in base year (metric tonnes CO <sub>2</sub> -e)	Target year	GHGs and GHG sources to which the target applies	Target met?	Comment
Electricity consumption target	5.00	% reduction from base year	2008		2009	Scope 2	Yes	<b>Target reached in FY09:</b> Reduced energy consumption by 5% across Stockland's operating retail centre portfolio.
Intensity target	20.00	% reduction from base year	2009		2014	Scope 1 + 2	Target ongoing	<b>Future target:</b> Reduce greenhouse gas emissions intensity and energy use intensity (per m <sup>2</sup> ) across Stockland's Commercial Property portfolio by 20% by FY14.
Average NABERS Office rating	4.50	Star average			2014		Target ongoing	<b>Future target:</b> Attain a 4.5 Star average NABERS (National Australian Built Environment Rating System) Office Energy rating for Stockland's office portfolio by FY14.
Stabilisation target	0.00	Increase in absolute emissions	2009		2014	Scope 1 + 2	Target ongoing	<b>Future target:</b> Stockland anticipates that the 20% reduction in emissions target for Commercial Property will enable it to maintain Commercial Property absolute greenhouse gas emissions at or below FY09 levels by FY14.

## Strategy – targets (continued)

As a property business, Stockland recognises that energy efficiency presents the biggest and most cost-effective means to reduce GHG emissions.

To help set targets for improved energy efficiency and reduced emissions, Stockland began work on a carbon abatement cost curve. Put simply, this means understanding those actions that achieve emissions cuts at the lowest cost across our portfolio. Stockland's cost curve is based on evidence from energy reduction projects (including those identified via the federal government's Energy Efficiency Opportunities program) to reduce emissions and energy use analysis across its portfolio.

In FY08 Stockland identified 182 potential projects to reduce emissions and energy use across 17 properties as part of its Energy Efficiency Opportunities reporting obligations.

Methodology developed by an external consultancy allowed Stockland to identify specific abatement opportunities and the specific costs of implementing these measures. The methodology assesses the projects over a period of four years and demonstrates the average cost of abatement if each action is implemented cumulatively.

Stockland has incorporated the cost curve methodology into its Climate Change Action Plan target-setting function. This will enable the organisation to set an emissions reduction target and have an accurate, reality-based estimate of the costs associated with achieving that target. Stockland will also be able to quickly model the costs of reducing emissions across our entire range, as well as at the individual asset level.

Stockland is committed to significantly improving energy efficiency across its Commercial Property portfolio. Stockland tracks its performance through measuring energy and greenhouse gas emissions intensity (per m<sup>2</sup>), as well as attaining accredited NABERS ratings for its office buildings. Stockland has set five year intensity and NABERS ratings targets. Stockland also recognises that it needs to track absolute emissions. Reducing overall emissions as Stockland's portfolio grows will prove challenging. Stockland has also set a NABERS office Energy target of 4.5 Stars by FY14.

Stockland has set a target of reducing GHG emissions intensity and energy use intensity across its Commercial Property portfolio by 20% by FY14. Stockland anticipates that this will enable it to maintain Commercial Property absolute greenhouse gas emissions at or below FY09 levels by FY14. This means that both new and existing buildings will need to be substantially more efficient than current levels to achieve this outcome. Stockland anticipates that its emissions profile will be lumpy during this time, reflecting the completion and leasing of new development projects.

## Strategy – targets (continued)

### 9.7 PLEASE USE THE TABLE BELOW TO DESCRIBE YOUR COMPANY'S ACTION TO REDUCE ITS GHG EMISSIONS.

Actions – please describe	Annual energy saving	Annual energy savings – number	Annual energy saving – units	Annual emissions reduction in metric tonnes CO <sub>2</sub> -e	Reduction – achieved or anticipated	Investment – number	Investment – currency	Monetary savings – number	Monetary savings – currency	Monetary savings
Various energy efficiency opportunities were undertaken by Stockland in FY09. Examples of projects that achieved the most significant direct energy savings are:										
HVAC – Operating hours: air conditioning operating hours were reduced from 0700–1900 to 0700–1730 Monday to Friday (excluding public holidays).	Achieved	114,000	kWh (kilowatt-hour)	123	Achieved	0	AUD (\$)	17,100	AUD (\$)	Achieved
HVAC – Air conditioning face wash air handling units (AHUs): AHUs are now manually switched off during after hours air conditioning operation, and are cycled in response to outside air ambient temperatures and solar load.	Achieved	140,000	kWh (kilowatt-hour)	151	Achieved	0	AUD (\$)	21,000	AUD (\$)	Achieved
Retail Centres Efficiency Program: An energy and water efficiency implementation program was rolled out across 18 Stockland owned retail centres across Australia. Energy efficiency initiatives implemented involved heating, ventilation, air conditioning and lighting systems. Water conservation mechanisms including flow control devices were installed and taps and shower heads were replaced with more efficient alternatives to reduce unnecessary water consumption. The energy and water savings have been verified.	Achieved	16,600	GJ	4,100	Achieved	3,000,000	AUD (\$)	690,000	AUD (\$)	Achieved
Various energy opportunities were identified in an initial opportunities assessment in FY08. Several of these opportunities have been progressed in FY09, with the assistance of 21 electricity sub-meters, nine water sub-meters and one gas sub-meter. Two projects that achieved significant direct energy saving are listed below:										
HVAC – Optimise air conditioning time schedules for tenancies	Achieved	199,700	kWh (kilowatt-hour)	202	Achieved	18,500	AUD (\$)			
Lighting – Optimise car park lighting time schedules.	Achieved	17,300	kWh (kilowatt-hour)	18	Achieved	1,650	AUD (\$)			

## Strategy – emission reduction activities

### 9.9 PLEASE PROVIDE ANY OTHER INFORMATION YOU CONSIDER NECESSARY TO DESCRIBE YOUR EMISSION REDUCTION ACTIVITIES.

The energy used in Stockland's existing portfolio of buildings is a significant contributor to the organisation's carbon footprint. Stockland is therefore committed to improving energy efficiency in these buildings, as well as its new developments.

Regulation, in the form of the federal government's Energy Efficiency Opportunities Act (EEO), has led to a review of energy efficiency opportunities being undertaken across Stockland's Commercial Property portfolio. The EEO program requires technical energy savings evaluations and the implementation of a continuous improvement process. Stockland's office and retail assets participate in the program and assessments are undertaken on selected sites on a rolling annual basis.

Opportunities with paybacks of four years or less are investigated and considered for inclusion in operating and capital budgets. Some of these implemented projects are listed above.

### 9.10 DO YOU ENGAGE WITH POLICY MAKERS ON POSSIBLE RESPONSES TO CLIMATE CHANGE INCLUDING TAXATION, REGULATION AND CARBON TRADING?

Yes.

### 9.11 PLEASE DESCRIBE.

As regulations have a substantial impact on Stockland's business activities, employees proactively engage with government and regulatory authorities.

Stockland actively monitors legislative and regulatory changes directly through its business unit activities and its Corporate Affairs team, as well as via key industry bodies. The Property Council of Australia (PCA), Green Building Council of Australia (GBCA) and Shopping Centre Council of Australia are primary representative bodies at both federal and state levels. Since 2008 Stockland has substantially increased the frequency of its direct political engagement on important public policy issues.

Stockland has made many submissions to government over the past year on matters such as planning, taxation and environmental regulation.

Regulators recognise the important role that the property sector can play in reducing Australia's GHG emissions through improving energy efficiency of buildings.

Areas of strengthening regulation where Stockland has engaged with government and industry groups include:

- Emissions and energy efficiency disclosure;
- Adaptation to physical impacts of climate change; and
- Increasingly stringent building code requirements.

In general, regulation related to sustainability performance has become increasingly complex with different layers of government seeking to take action. Through the PCA and GBCA, Stockland has advocated the harmonising of reporting and regulatory requirements. Details on these regulations are included in Section 3 above.

## GHG emissions accounting, energy and fuel use, and trading

Emissions Boundary (1 July 2008 – 30 June 2009)

### 10.1 PLEASE INDICATE THE CATEGORY THAT DESCRIBES THE COMPANY, ENTITIES, OR GROUP FOR WHICH SCOPE 1 AND SCOPE 2 GHG EMISSIONS ARE REPORTED.

Companies over which operational control is exercised.

### 10.2 ARE THERE ANY SOURCES (E.G. FACILITIES, SPECIFIC GHGS, ACTIVITIES, GEOGRAPHIES, ETC.) OF SCOPE 1 AND SCOPE 2 EMISSIONS WITHIN THIS BOUNDARY WHICH ARE NOT INCLUDED IN YOUR DISCLOSURE?

Yes.

### 10.3 PLEASE COMPLETE THE FOLLOWING TABLE.

Source	Scope	Explain why the source is excluded
United Kingdom	Scope 1 and 2	Stockland's UK emissions and energy data is collected for those assets where the energy budget is greater than £5,000 a year. Data is sourced from invoices, and is 85% complete for electricity and 77% complete for gas. Twelve months worth of data has been extrapolated from these figures. GHG emissions for Stockland's UK operations: 13,190 tonnes CO <sub>2</sub> -e.

### Further information

All figures included in the following disclosures are Australian operations only. For FY09 Stockland reported according to its 'operational control' boundary under the NGERA.

Stockland reports on the base-building electricity and gas consumption and the associated GHG emissions of its office, industrial and retail assets for which it has operational control. Tenant usage is not included, except where Stockland is the tenant. Stockland's tenancy consumption for FY09 has been included in the data.

FY09 is the first year that Stockland has also collected and reported greenhouse and energy data for its residential assets. This has been driven by Stockland's responsibility to report under the NGERA. The estimates provided have included a combination of site sampling, emissions assumptions and estimates and extrapolation. Stockland recognises that it needs to further improve the accuracy of its emissions reporting.

GHG emissions totals vary slightly between Stockland's CR&S Report 2009 and its National Greenhouse and Energy Reporting Scheme (NGERS) submission. This is because some real consumption data was not available at the time of the release of the FY09 CR&S Report (published prior to submission of Stockland's NGERS report), due to energy billing periods.

## Methodology

### 11.1A PLEASE GIVE THE NAME OF THE STANDARD, PROTOCOL OR METHODOLOGY YOU HAVE USED TO COLLECT ACTIVITY DATA AND CALCULATE SCOPE 1 AND SCOPE 2 EMISSIONS.

#### Please select the published methodologies that you use.

Australia: National Greenhouse and Energy Reporting Act 2007

Other: Stockland also refers to the Property Council of Australia's *National Greenhouse and Energy Reporting Act 2007 – Property Industry Discussion Paper*

### 11.1B PLEASE DESCRIBE THE PROCEDURE THAT YOU USE.

This reported data uses the Australian government's Department of Climate Change National Greenhouse Accounts (NGA) Factors Workbook (November 2008) to calculate Scope 1, 2 and 3 emissions from the following sources:

- Electricity;
- Gas;
- Refrigerants; and
- Fuel: petrol, diesel, LPG and ethanol 10%.

The 2009 WRI Workbook CO<sub>2</sub> Mobile (version 1.3) has been used to calculate emissions from air travel. The 2003 Workbook was used to derive the medium haul emissions factor.

Scope 1 incorporates fuel use in our vehicle fleet, gas burned in our office, industrial and retail assets, and refrigerant emissions.

Scope 2 covers base-building electricity purchased for our office, industrial and retail assets, and our corporate tenancies.

Scope 3 covers transmission and production losses from purchased electricity, gas and fuel, and emissions from employee travel (flights and car hire).

### 11.2 PLEASE ALSO PROVIDE THE NAMES OF AND LINK OF ANY CALCULATION TOOLS USED.

#### Please select the calculation tools used.

Australian Government's Department of Climate Change National Greenhouse Accounts (NGA) Factors Workbook (November 2008) [www.climatechange.gov.au/climate-change/~media/publications/greenhouse-gas/national-greenhouse-factors-june-2009-pdf.ashx](http://www.climatechange.gov.au/climate-change/~media/publications/greenhouse-gas/national-greenhouse-factors-june-2009-pdf.ashx)

2009 WRI Workbook CO<sub>2</sub> Mobile (version 1.3) – calculate emissions from air travel, 2003 Workbook was used to derive the medium haul emissions factor

### 11.3 PLEASE GIVE THE GLOBAL WARMING POTENTIALS YOU HAVE APPLIED AND THEIR ORIGIN.

Gas	Reference
Multiple refrigerant gases (R123, R134A, R11,R22, R407C) expressed as CO <sub>2</sub> equivalent	Australian government reporting methodology for the National Greenhouse and Energy Reporting Act 2007

### 11.4 PLEASE GIVE THE EMISSION FACTORS YOU HAVE APPLIED AND THEIR ORIGIN.

All factors are from NGA Factors Workbook. Not listed separately.



## Emissions scope 1 (1 July 2008 – 30 June 2009)

### 12.1 PLEASE GIVE YOUR TOTAL GROSS SCOPE 1 GHG EMISSIONS IN METRIC TONNES OF CO<sub>2</sub>-e.

18,957

### 12.2 IS QUESTION 12.2 RELEVANT TO YOUR COMPANY?

No.

### 12.3 PLEASE EXPLAIN WHY NOT.

#### Emissions boundary

All figures are Australian operations only. For FY09 Stockland reported according to its 'operational control' boundary under the NGERA. Stockland reports on the base-building electricity and gas consumption and the resulting greenhouse gas emissions for the office, industrial and retail assets for which it has operational control.

FY09 is the first year that Stockland has also collected and reported greenhouse and energy data for its residential assets. This has been driven by Stockland's responsibility to report under the NGERA. The estimates provided have included a combination of site sampling, emissions assumptions and estimates and extrapolation.

Stockland's UK emissions and energy data is collected for those assets where the energy budget is greater than £5,000 a year. Data is sourced from invoices, and is 85% complete for electricity and 77% complete for gas. Twelve months worth of data has been extrapolated from these figures. GHG emissions for Stockland's UK operations: 13,190 tonnes CO<sub>2</sub>-e.

### 12.4 WHERE IT WILL FACILITATE A BETTER UNDERSTANDING OF YOUR BUSINESS, PLEASE ALSO BREAK DOWN YOUR TOTAL GROSS GLOBAL SCOPE 1 EMISSIONS BY BUSINESS DIVISION.

Business division	Scope 1 Metric tonnes CO <sub>2</sub> -e
Commercial Property	2,852
Residential	14,952
Retirement Living	830
Stockland Corporate	323

### 12.6 PLEASE BREAK DOWN YOUR TOTAL GROSS GLOBAL SCOPE 1 EMISSION BY GHG TYPE.

GHG type	Scope 1 Emissions (Metric tonnes CO <sub>2</sub> -e)
CO <sub>2</sub>	17,816
CH <sub>4</sub>	56
HFCs	944
N <sub>2</sub> O	140

### 12.8 PLEASE GIVE THE TOTAL AMOUNT OF FUEL IN MWH THAT YOUR ORGANIZATION HAS CONSUMED DURING THE REPORTING YEAR.

10,285

## Emissions scope 1 (1 July 2008 – 30 June 2009) (continued)

### 12.10 PLEASE COMPLETE THE TABLE BY BREAKING DOWN THE TOTAL FIGURE BY FUEL TYPE.

Fuels	MWh
Natural gas (12.8 and 12.10 only includes gas usage in commercial buildings; fugitive refrigerant gas is excluded as it is not a unit of energy, and transport emissions have also been excluded)	10,285.00

### 12.12 PLEASE ESTIMATE THE LEVEL OF UNCERTAINTY OF THE TOTAL GROSS GLOBAL SCOPE 1 FIGURE THAT YOU HAVE SUPPLIED IN ANSWER TO QUESTION 12.1 AND SPECIFY THE SOURCES OF UNCERTAINTY IN YOUR DATA GATHERING, HANDLING AND CALCULATIONS.

Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data.
More than 2% but less than or equal to 5%	Assumptions	Assumptions: The data boundary ignores extremely small emissions that are part of property management, such as fire extinguishers. The Property Council of Australia and its members undertook a review, and established a view that these small emissions account for less than 0.5%.
	Sampling	Sampling: This is the first year that Stockland has extended its data set to include its Residential and Retirement Living businesses, which includes reporting on emissions from contractors. Contractor reporting is more complex than simply collecting data from invoices, and sampling methods have been used for this data set after extensive work with consultants. Stockland is implementing improved data collection methods to improve accuracy and reduce the need for sampling.

## Emissions scope 1 (1 July 2008 – 30 June 2009) (continued)

### 13.1 PLEASE GIVE YOUR TOTAL GROSS SCOPE 2 GHG EMISSIONS IN METRIC TONNES OF CO<sub>2</sub>-e.

126,438

### 13.2 IS QUESTION 13.2 RELEVANT TO YOUR COMPANY?

No.

### 13.3 PLEASE EXPLAIN WHY NOT.

#### Emissions boundary

All figures are Australian operations only. For FY09 Stockland reported according to its 'operational control' boundary under the NGERA. Stockland reports on the base-building electricity and gas consumption and the resulting greenhouse gas emissions for the office, industrial and retail assets for which it has operational control.

FY09 is the first year that Stockland has also collected and reported greenhouse and energy data for its residential assets. This has been driven by Stockland's responsibility to report under the NGERA. The estimates provided have included a combination of site sampling, emissions assumptions and estimates and extrapolation.

Stockland's UK emissions and energy data is collected for those assets where the energy budget is greater than £5,000 a year. Data is sourced from invoices, and is 85% complete for electricity and 77% complete for gas. Twelve months worth of data has been extrapolated from these figures. GHG emissions for Stockland's UK operations: 13,190 tonnes CO<sub>2</sub>-e.

### 13.4 WHERE IT WILL FACILITATE A BETTER UNDERSTANDING OF YOUR BUSINESS, PLEASE ALSO BREAK DOWN YOUR TOTAL GROSS GLOBAL SCOPE 2 EMISSIONS BY BUSINESS DIVISION.

Business division name	Metric tonnes CO <sub>2</sub> -e
Commercial Property	118,633
Residential	4,655
Retirement Living	1,667
Stockland Corporate	1,484

### 13.6 HOW MUCH ELECTRICITY, HEAT, STEAM, AND COOLING IN MWH HAS YOUR ORGANIZATION PURCHASED FOR ITS OWN CONSUMPTION DURING THE REPORTING YEAR?

Please supply data for these energy types	MWh
Electricity	136,629

## Emissions scope 2 (1 July 2008 – 30 June 2009)

### 13.8 PLEASE ESTIMATE THE LEVEL OF UNCERTAINTY OF THE TOTAL GROSS GLOBAL SCOPE 2 FIGURE THAT YOU HAVE SUPPLIED IN ANSWER TO QUESTION 13.1 AND SPECIFY THE SOURCES OF UNCERTAINTY IN YOUR DATA GATHERING, HANDLING, AND CALCULATIONS.

Uncertainty range	Main sources of uncertainty in your data	Please expand on the uncertainty in your data.
More than 2% but less than or equal to 5%	Assumptions	Assumptions: The data boundary ignores extremely small emissions that are part of property management such as fire extinguishers. The Property Council of Australia and its members undertook a review, and established a view that these small emissions account for less than 0.5%.
	Sampling	Sampling: This is the first year that Stockland has extended its data set to include its Residential and Retirement Living businesses, which includes reporting on emissions from contractors. Contractor reporting is more complex than simply collecting data from invoices, and sampling methods have been used for this data set after extensive work with consultants. Stockland is implementing improved data collection methods to improve accuracy and reduce the need for sampling.

## Emissions scope 2 contractual

### 14.1 DO YOU CONSIDER THAT THE GRID AVERAGE FACTORS USED TO REPORT SCOPE 2 EMISSIONS IN QUESTION 13 REFLECT THE CONTRACTUAL ARRANGEMENTS YOU HAVE WITH ELECTRICITY SUPPLIERS?

Yes.

### 14.4 HAS YOUR ORGANIZATION RETIRED ANY CERTIFICATES, E.G. RENEWABLE ENERGY CERTIFICATES, ASSOCIATED WITH ZERO OR LOW CARBON ELECTRICITY WITHIN THE REPORTING YEAR, OR HAS THIS BEEN DONE ON YOUR BEHALF?

No.

## Emissions scope 3

### 15.1 IS QUESTION 15.1 RELEVANT TO YOUR COMPANY?

Yes.

### 15.2 PLEASE PROVIDE DATA ON SOURCES OF SCOPE 3 EMISSIONS THAT ARE RELEVANT TO YOUR ORGANIZATION.

Sources of Scope 3 emissions	Metric tonnes of CO <sub>2</sub> -e	Methodology	If you cannot provide a figure for a relevant source of Scope 3 emissions, please describe the emissions.
Business travel	1,112	The 2009 WRI Workbook CO <sub>2</sub> Mobile (version 1.3) was used to calculate emissions from air travel. The 2003 Workbook was used to derive the medium haul emissions factor. The Australian government's Department of Climate Change National Greenhouse Accounts (NGA) Factors Workbook (November 2008).	Car hire and air travel
Energy-related activities not included in Scope 2	19,718	Australian government's Department of Climate Change National Greenhouse Accounts (NGA) Factors Workbook (November 2008).	Total transmission and production losses from purchased electricity and gas and fuel for vehicle fleet

## Emissions 7

### 16.1 DOES THE USE OF YOUR GOODS AND/OR SERVICES ENABLE GHG EMISSIONS TO BE AVOIDED BY A THIRD PARTY?

Yes.

### 16.2 PLEASE PROVIDE DETAILS INCLUDING THE ANTICIPATED TIMESCALE OVER WHICH THE EMISSIONS ARE AVOIDED, IN WHICH SECTOR OF THE ECONOMY THEY MIGHT HELP TO AVOID EMISSIONS AND THEIR POTENTIAL TO AVOID EMISSIONS.

Stockland is committed to reducing GHG emissions and increasing the energy efficiency of its property portfolio, including the development, management and operations of assets.

Tenants in Stockland's property may reduce their GHG emissions as a result of occupying energy efficient buildings.

Stockland also encourages its tenants to better understand their energy efficiency through programs such as CitySwitch, which encourage tenants to measure and manage their energy efficiency.

Stockland also encourages its tenants to improve energy efficiency through their fitout stage by providing them with eco-efficiency design guidance through its Retail Design and Fitout Guide.

## Emissions 8

### 18.1A PLEASE DESCRIBE A FINANCIAL INTENSITY MEASUREMENT FOR THE REPORTING YEAR FOR YOUR GROSS COMBINED SCOPE 1 AND SCOPE 2 EMISSIONS.

Figure for Scope 1 and Scope 2 emissions	GHG units	Multiple of currency unit	Currency unit	Financial intensity metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
194.83	Metric tonnes CO <sub>2</sub> -e	Million	AUD (\$)	Profit	

### 18.1B PLEASE DESCRIBE AN ACTIVITY-RELATED INTENSITY MEASUREMENT FOR THE REPORTING YEAR FOR YOUR GROSS COMBINED SCOPE 1 AND SCOPE 2 EMISSIONS.

Figure for Scope 1 and Scope 2 emissions	GHG units	Activity-related metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
103.80	Kilograms CO <sub>2</sub> -e	per m <sup>2</sup> (net lettable area)	GHG emissions for office assets divided by the leased floor area of those assets. (This is for Stockland's office portfolio only. The metric is based on floor area (net lettable area) of buildings in intensity metric (m <sup>2</sup> ) = 508,342; the floor area in the intensity metric = 76%).
74.60	Kilograms CO <sub>2</sub> -e	per m <sup>2</sup> (gross lettable area)	GHG emission for retail assets divided by the leased floor area of those assets. (This is for Stockland's retail portfolio only. The metric is based on floor area (gross lettable area) of buildings in intensity metric (m <sup>2</sup> ) = 735,733; the floor area in the intensity metric = 97%).

### 19.1 DO THE ABSOLUTE EMISSIONS (SCOPE 1 AND SCOPE 2 COMBINED) FOR THE REPORTING YEAR VARY SIGNIFICANTLY COMPARED TO THE PREVIOUS YEAR?

No.

### 20.1A PLEASE COMPLETE THE FOLLOWING TABLE INDICATING THE PERCENTAGE OF REPORTED EMISSIONS THAT HAVE BEEN VERIFIED/ASSURED AND ATTACH THE RELEVANT STATEMENT.

Scope 1 (Q12.1)	Scope 2 (Q13.1)	Scope 3 (Q15.1)
More than 80% but less than or equal to 100%	More than 80% but less than or equal to 100%	Not verified

Banarra Sustainability Assurance and Advice (Banarra) was commissioned by Stockland to verify the quality of its reported greenhouse gas emissions data (GHG emissions data) for 1 July 2008 to 30 June 2009 in preparation for its National Greenhouse and Energy Reporting submission for the 2008–2009 financial year (FY09).

## Emissions 9 trading

---

### 21.1 DO YOU PARTICIPATE IN ANY EMISSION TRADING SCHEMES?

No, we don't participate, nor do we currently anticipate participating in any emissions trading scheme within the next two years.

---

### 21.4 HAS YOUR COMPANY ORIGINATED ANY PROJECT-BASED CARBON CREDITS OR PURCHASED ANY WITHIN THE REPORTING PERIOD?

No.

## Climate change communications

---

### 22.1 HAVE YOU PUBLISHED INFORMATION ABOUT YOUR COMPANY'S RESPONSE TO CLIMATE CHANGE/GHG EMISSIONS IN OTHER PLACES THAN IN YOUR CDP RESPONSE?

Yes.

---

### 22.2 IN YOUR ANNUAL REPORTS OR OTHER MAINSTREAM FILING?

Yes.

---

### 22.3 THROUGH VOLUNTARY COMMUNICATIONS SUCH AS CSR REPORTS?

Yes.

#### **Further information**

2009 Corporate Responsibility and Sustainability Report:  
[www.stockland.2009.crs-report.com.au/](http://www.stockland.2009.crs-report.com.au/)

Stockland's Shareholder Review, including a summary of Stockland's GHG emissions was mailed to all retail shareholders: [www.stockland.09.sr.easiar.com.au/](http://www.stockland.09.sr.easiar.com.au/)

GHG emissions intensity performance for past four years was included in Stockland's Half Year Investor Presentation in February 2010:  
[http://media.corporate-ir.net/media\\_files/irol/17/173099/feb/10.02.10\\_Investor%20presentation.pdf](http://media.corporate-ir.net/media_files/irol/17/173099/feb/10.02.10_Investor%20presentation.pdf)

