Module: Introduction

Page: Introduction

0.1

Introduction
Please give a general description and introduction to your organization

Stockland

We have a long and proud history of creating places that meet the needs of our customers and communities. Ervin Graf founded Stockland in 1952 with the vision to "not merely achieve growth and profits but to make a worthwhile contribution to the development of our cities and great country."

Pursuing that vision has seen us grow to become one of Australia's leading diversified property groups - developing and managing a large portfolio of residential community, retirement living, retail, office and industrial assets.

This survey discloses Stockland's greenhouse gas emissions performance for the 2011 financial year, ending 30 June 2011. Stockland publishes assured data and commentary as part of its annual *Corporate Responsibility and Sustainability Report* and under the Australian Government's *National Greenhouse and Energy Reporting Act*.

Stockland own, manage and develop property and operate across most parts of the property value chain. However, we engage others to carry out building works, deliver services such as security and cleaning, and provide audit and consultancy services.

Stockland's Corporate Responsibility and Sustainability Report and previous Carbon Disclosure Project submissions can be found at www.stocklandsustainability.com.au

Stockland at 30 June 2011:

Commercial Property

Retail:

- One of the largest retail property owners, managers and developers in Australia

- 42 retail centres
- Valued at approximately $4.6 billion

Office:

- 28 properties
- Valued at $2.5 billion

Industrial:

- 15 properties
- Valued at $1.0 billion

Residential

Communities:

- A leading residential developer in Australia
- Focused on delivering a range of masterplanned and mixed-use communities in growth areas across the country
- 90,200 lots and projects with a total end value of approximately $24.2 billion

Apartments:

- In June 2009 we announced that we will trade-out of our existing apartments projects
- Projects with an end value of approximately $0.5 billion

Retirement Living

- A top three retirement living operator within Australia
- 7.535 established units across five states
- Short to medium-term development pipeline of over 3,413 units

Stockland UK

- Portfolio comprises retail, office and mixed-use projects
- In August 2009 we announced an orderly withdrawal from the UK market with assets to be sold over the next two to three years

0.2

Reporting Year
Please state the start and end date of the year for which you are reporting data.
The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.
We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.
Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed
Thu 01 Jul 2010 - Thu 30 Jun 2011

0.3

Country list configuration

Please select the countries for which you will be supplying data. This selection will be carried forward to assist you in completing your response

Select country
Australia

0.4

Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

AUD ($)

0.5

Please select if you wish to complete a shorter information request

0.6

Modules
As part of the Investor CDP information request, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors and companies in the oil and gas industry should complete supplementary questions in addition to the main questionnaire.
If you are in these sectors (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will be marked as default options to your information request. If you want to query your classification, please email respond@cdproject.net.
If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see https://www.cdproject.net/en-US/Programmes/Pages/More-questionnaires.aspx.

Further Information

Stockland's carbon, energy and climate change management and performance can be found within:

- Stockland's Corporate Responsibility and Sustainability Report 2011 www.stocklandsustainability.com.au
- Stockland's Climate Change Position Statement www.stockland.com.au/assets/about-stockland/climate-position-final.pdf
- Stockland's Carbon Disclosure Project submissions 2006-2011 www.stockland.com.au/about/about-stockland2_corporate-responsibility-and-sustainability.htm
- Stockland's Corporate Responsibility and Sustainability Reports 2006-2010 www.stockland.com.au/about/about-stockland2_corporate-responsibility-and-sustainability.htm

Module: Management [Investor]

Page: 1. Governance

1.1

Where is the highest level of direct responsibility for climate change within your company?

Individual/Sub-set of the Board or other committee appointed by the Board

1.1a

Please identify the position of the individual or name of the committee with this responsibility

Corporate Responsibility and Sustainability Board Committee

Stockland recognises that a sustainable future for its business depends upon the sustainability of the communities, economy and society in which it operates. The purpose of the Committee is to assist the Board to oversee Stockland's commitment to operate its business ethically, responsibly and sustainably.

The Committee met four times during FY11. The following Directors were members of the Committee at the close of the financial year:
• Mr D Boyle (Chair) - Non-Executive Director,
• Ms C Schwartz - Non-Executive Director,
• Mr B Neil – Non-Executive Director,
• Mr M Quinn – Managing Director.

A monthly CR&S report is submitted to the Executive Committee and to the Board. This report includes monthly tracking of Stockland's carbon performance.

1.2

Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

1.2a

Please complete the table

Who is entitled to benefit from these incentives?	The type of incentives	Incentivised performance indicator

Who is entitled to benefit from these incentives?	The type of incentives	Incentivised performance indicator
Chief Executive Officer (CEO)	Monetary reward	CEO incentivised performance indicator is linked to Stockland's greenhouse gas emission targets.
Environment/sustainability managers	Monetary reward	Environment and sustainability manager incentivised performance indicators are linked greenhouse gas emissions targets and climate change mitigation and adaptation actions.
Facility managers	Monetary reward	Facility managers incentivised performance indicators are link to the greenhouse gas emissions targets for assets and greenhouse gas emissions project level reporting.
All employees		All employees have incentivised performance indictors linked to sustainability performance as part of their balanced performance scorecards.

Further Information

More information on Stockland's governance and performance incentives can be found within:

- Stockland's Corporate Responsibility and Sustainability Report 2011 pages 4,12,17,44 www.stockland.com.au/assets/crs2011/CRS_2011_Report.pdf
- Stockland's Financial Report 2011 pages 9-18 www.stocklandreports2011.com.au/financialreport/index.html

Page: 2. Strategy

2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

2.1a

Please provide further details (see guidance)

Stockland adopts a rigorous approach to understanding and proactively managing the risks it faces in its business. We recognise that taking business decisions which entail calculated risks, and managing those within sensible tolerances, is fundamental to delivering long-term value to our securityholders and meeting our

commitments to our employees, tenants, customers, contractors, business partners consultants and the communities in which we do business.

Stockland's Risk Management Framework is integrated with our day-to-day business processes and functional responsibilities and is supported by a dedicated Group Risk function. Our risk management approach is guided by the Australian/New Zealand Risk Management Standard (AS/NZS ISO 31000:2009) and other applicable international standards.

Group Risk works collaboratively with other Group functions and the business units to provide an additional layer of assurance to the Board that risk is appropriately managed. The Group uses sensitivity analysis, scenario planning and stress testing to identify and quantify material business and financial risks to the delivery of projects and business plans. These analysis processes include the assessment of stakeholder and environmental risk, including climate change risks such as sea level rise regulation and bushfire risk.

The Chief Risk Officer leads the Stockland Group Risk Team which is responsible for three main functions:

- Group Compliance
- Business Review
- Risk Advisory

The Chief Risk Officer has a direct reporting relationship to the Chief Financial Officer, and the Chairpersons of the Risk Committee, Audit Committee, and Financial Services Compliance Committee.

Our risk management systems ensure that:

- Our managers have an up-to-date and accurate understanding of the material risks (both financial and non-financial) relevant to their areas of responsibility and the strategies and controls in place to mitigate these risks.
- Policies and procedures are developed to guide our actions relating to specific risk classes within our business.
- Appropriate risk management education and training is provided to employees.
- Risk management processes and practices are diligently applied by our employees.
- Regular evaluation of our risk management approaches and systems is undertaken.
- Regular updates from management and relevant external parties are provided to the Board Risk Committee on the status of material business risks.
- Major risk issues are promptly reported to the full Board.
- Management's report on the group's policies for monitoring and managing material risk is provided to and reviewed by the Board
- The Managing Director and Financial Director confirm each year in writing that in their opinion, the risk management and internal control system to manage the Group's material risks has operated effectively.

In FY11 Stockland strengthened its focus on risk management at the Board level by creating a new Risk Committee to monitor risk across our business and our financial operations. The Risk Committee's charter encompasses a review of risk management issues previously the responsibility of the Treasury Committee (including funding, liquidity, interest rate and counter-party risks), the CR&S Committee (health and safety risk) and project and operational risks.
During the year we increased the visibility of our existing Fraud and Whistleblowing policies by creating a module for inclusion within out mandatory compliance training. In addition, a Fraud workshop was conducted for key teams in the organisation. We have introduced an anonymous "Tell me" function on our intranet encouraging employees to speak up on suspected fraudulent or corrupt practices.

Stockland's sustainability teams work closely with Group Risk to manage and assess Stockland climate change risks and opportunities. The risks of climate change affect the way in which our organisation, governments, communities and other key stakeholders view the built environment. We are committed to improving our understanding of these risks and opportunities for mitigation and adaptation.
In response to climate risk our CR&S Board Committee approved our Climate Change Action Plan, which complements our CR&S Strategy. The vision for our Action Plan is to mitigate and adapt to the risk of climate change. The plan focuses on five long-term action themes: monitor, reduce, adapt, innovate and communicate. Our response to the five action themes are discussed through the submission.
Under the theme of adapt, we have made a commitment to research and respond to climate change risk. As a result we have developed a climate adaptation strategy to increase our understanding of the changing climate and to help prioritise our actions in adapting to climate risk. The strategy helps us inform decisions about the type of action, timing and specific assessments need for our organisation to prepare for changes in the climate. This work builds on previous bushfire, sea level rise and flooding assessment undertaken by parts of the organisation. The outcomes of the research are now informing management practices, including the monitoring of risks through regular project and asset review as part of our monthly Project Performance Review process.

2.2

Is climate change integrated into your business strategy?

Yes

2.2a

Please describe the process and outcomes (see guidance)

Stockland's aims to be a trusted partner with government to deliver vibrant and sustainable communities, retail centres and social hubs and to deliver our customers "a better way to live".

We do this by creating market-leading capabilities for the development and management of residential communities, retirement living villages and retail centres across Australia. This allows us to have faster speed to market by building trust with key approval authorities and other stakeholders.

Stockland's CR&S Strategy informs how we achieve this. Stockland's Corporate Responsibility and Sustainability (CR&S) Board Committee oversees Stockland's CR&S Strategy. As part of this strategy Stockland has identified climate change as a material issue for our business. The Board is updated on the progress of this strategy and our greenhouse gas emissions performance monthly.

In order to address this issue appropriately, Stockland developed a Climate Change Action Plan to complement the CR&S strategy and address the risks and opportunities associated with climate change. Stockland's CR&S Board Committee and Executive Committee have been engaged during the development and progress of the Climate Change Action Plan.

The Climate Change Action Plan vision is to mitigate and adapt to the risks of climate change by addressing five key action themes with both short and long term

goals.

1. Monitor - streamline our reporting and monitor emissions and targets.
In FY11 we significantly improved our collection of contractor data in our Residential and Retirement Living businesses (as required under the National Greenhouse and Energy Reporting Act). This has been as result of embedding our carbon accounting within our OH&S and Financial systems. This provides us with the opportunity to influence the reduction of emissions within our supply chain.
2. Reduce - reduce emissions where we have both direct control and scope to influence.
Our Commercial Property GHG emissions intensity results for FY11 were pleasing as our office portfolio continued to minimise their emission intensity by 12 per cent. Our retail portfolio also had a modest reduction in emissions intensity of 4 per cent. We will continue to invest in energy efficiency across our organisation to ensure that we meet our FY14 targets. Significant capital investment has been dedicated to achieving these targets.
3. Adapt - research and respond to climate change risk.
Stockland has developed a Climate Adaptation Strategy which sets out our priorities for adapting to a changing climate and informs decisions by our organisation on how to adapt to climate change. This strategy was presented to the Stockland Board. As a result of the strategies adoption each of our business units have a climate adaptation protocol to test the climate risk on each project and put in place modifications to assist the climate resilience of our projects.
4. Innovate - integrate innovative solutions into operations and developments.
Over the past few years we have demonstrated our commitment to innovation through our 'World Leadership' Green Star 6 Star projects. We are investigating wind and solar energy generation and tri-generation systems, including in both new and existing buildings. The business is also working with the CSIRO to investigate the viability of low carbon, renewable energy and distributed energy technologies in retail centres and residential communities.
5. Communicate - effectively communicate our position and performance.
We engage with all levels or government and are asked to join numerous panels and public forums to discuss climate change leadership. In May 2011 we published a, CR&S Board Committee approved, Climate Change position paper setting our approach for carbon pricing. We also engage with ESG (environmental, social and governance) analysts and participate in the development of a global common carbon metric for property, which ensures our response to climate change remains relevant and provides sector leadership.

2.2b

Please explain why not

2.3

Do you engage with policy makers to encourage further action on mitigation and/or adaptation?

Yes

2.3a

Please explain (i) the engagement process and (ii) actions you are advocating

i) Engagement Process
Stockland actively monitors legislative and regulatory change directly through our businesses as well as via industry bodies. The Property Council of Australia (PCA), Green Building Council of Australia (GBCA) and Shopping Centre Council of Australia continue to be our primary representative bodies at a government level.

Additionally, we are an active member of the Investor Group on Climate Change and an Organisational Stakeholder in the Global Reporting Initiative. In FY11, our employees have been active in groups such as the Australian Institute of Architects, the Planning Institute of Australia, the Australian Building Codes Board and the Federal Government's Built Environment Industry Innovation Council and Built Environment Roundtable.

Over the year we have engaged with government on urban planning, energy, climate change and wider environmental policy. We have done this through both direct discussion and via the industry bodies listed above in response to consultation, policy research, and partnerships to deliver best practice.

ii) Actions advocated
Specific engagement in relation to a range of sustainability matters has included:

- *Duplication of reporting requirements* - advocating for the harmonisation and streamlining of reporting and regulatory requirements
- *Review of the Energy Efficiency Opportunities Act* - advocating for clarity for the property sector within complex industry wide legislation
- *Review of Commercial Building Disclosure Act* - advocating for a more effective assessment of tenant lighting assessment that will meet the goal of the Act

Page: 3. Targets and Initiatives

3.1

Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?

Intensity target

3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions (metric tonnes CO2e)	Target year	Comment

3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
CP-O	Scope 1+2	35%	20%	Other: kilograms CO2e per square meter	2009	103.8	2014	Stockland is committed to reducing its office portfolio's emissions intensity by 20 per cent by FY14, based on FY09 figures.
CP-R	Scope 1+2	40%	20%	Other: kilograms CO2e per square meter	2009	74.6	2014	Stockland is committed to reducing its retail portfolio's emissions intensity by 20 per cent by FY14, based on FY09 figures

3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comments
CP-	Decrease	20	Decrease	20	If the portfolio were to remain the same to FY14 this would represent a 20%

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comments
O					absolute reduction. Scope 3 decrease represents the reduction in transmission losses as a result of the absolute reduction on electricity use.
CP-R	Decrease	20	Decrease	20	If the portfolio were to remain the same to FY14 this would represent a 20% absolute reduction. Scope 3 decrease represents the reduction in transmission losses as a result of the absolute reduction on electricity use.

3.1d

Please provide details on your progress against this target made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
CP-O	40	90	Our office portfolio has continued to deliver energy efficiency within existing and new buildings through capital investment in high-efficiency chillers, building management systems, lighting controls and variable speed drives. We extended our commitment to sub-metering, with new sub-metering to an additional four office buildings and energy upgrades to 10 existing office sub-metering sites.
CP-R	40	10	We have made a modest improvement in our energy performance in our retail portfolio, achieving a turnaround in FY11 as compared to our poor energy results in FY10. Over the past year we have been working hard to find the balance between upgrading existing assets whilst achieving energy savings. We remain committed to our FY14 target and are focusing on a number of initiatives to improve our results.

3.1e

Please explain (i) why not; and (ii) forecast how your emissions will change over the next five years

3.2

Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?

Yes

3.2a

Please provide details (see guidance)

Stockland continues to undertake a range of environmental initiatives and uses several environmental rating tools to monitor, reduce and benchmark the energy efficiency performance and GHG reductions within our assets and communities. These initiatives and rating tools allow our tenants, residents and customers to minimise greenhouse gas emissions.

Retirement Living

Our customers are saving money, energy and water, while enjoying the comforts of our new retirement villages. It is now cheaper day to day to move into a village compared to staying in a 30-40 year old home due to improvements in energy and water efficiency in the construction and fit out of new housing.
Our development villages are implementing the solutions early to ensure real savings for our residents. Some examples include:

• Selandra Rise where residents will save up to $900 on annual living costs. Energy efficiency is a big focus at this project and it is the first village in Australia registered for a Green Star rating under the newly developed Green Star Custom Tool. Features include a minimum of 7-Star NatHERS rated homes and LED street lighting with energy saving switching.

• Our Affinity Community Centre in Perth will save the village $28,000 per year to operate. Under construction right now, it will be the first centre registered for a Green Star rating under the Green Star Public Building Tool. Natural light optimisation, sensor lighting, pool plant heat exchangers and incorporation of recycled products are features.

• Photovoltaic cells (solar), lighting occupancy sensors, rain water reuse, hydronic gas-boosted underfloor heating and water sensitive urban design principles are being applied at our soon to be opened Macarthur Gardens Community Centre in Campbelltown.

We have also included sustainability design in some of our recently launched projects:

• Rain water harvesting: A new rainwater harvesting system at our Gowanbrae apartments will deliver a reduction in drinking (potable) water use of 330kL and a saving of up to $5000 per year for the apartment block; and

• Innovative and efficient heating and cooling: Our new heating, cooling and ventilation system at Arilla community centre will include isolated climate control, cutting electricity costs for residents and increasing their comfort.

Commercial Property

At our Retail Centres our teams are helping our retailers save both money and energy by taking advantage of funding offered by the Queensland Department of Environment and Resource Management. With the aim of reducing energy, waste or water consumption, the Department is offering funding for clusters of 20 local businesses over a six month period.

We identified that by retrofitting tenant lights with more energy efficient fittings we could achieve significant savings for tenants, by using the centre's purchasing power and government funding to our advantage.

As a whole cluster the Burleigh Heads retailers achieved more than 7% savings in their electricity consumption in a three month period, with some tenants achieving up a 40% reduction in energy usage.

At our Benowa Gardens centre tenants reduced their consumption by 13.5%, with one retailer reducing energy consumption by 70%.

We are continuing to run this program.

Residential

Over the past 12 months, we have focused on how we can influence greenhouse gas reduction on our sites and begin to help our customers to understand the impacts of energy on their ongoing costs. We have established a number of pilot and demonstration projects:
• Pilot project in partnership with energy providers to offer 1.5kW solar photovoltaic (PV) to customers at no cost,
• Demonstration project in partnership with our builders showcasing high performance homes capable of producing more energy than they will use,

• A partnership with an energy provider at our North Shore (Queensland) community to develop a range of energy efficiency initiatives including: a Green Living guide, electric vehicle use on-site, and trials for smart meters, household battery packs,

• Updated our requirements to ensure 7 Star display homes are considered for inclusion in all new display villages and all sales centres include solar PV,

• CCAP PRECINCT Sustainability design tool

3.3

Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)

Yes

3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings (only for rows marked *)
Under investigation	377	76982
To be implemented*	82	42127
Implementation commenced*	12	12077
Implemented*	131	61691
Not to be implemented	45	20479

3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings	Annual monetary savings (unit currency)	Investment required (unit currency)	Payback period
Energy efficiency: building services	We continued to install sub-metering systems across HVAC, lighting and other site end uses to an additional 22 shopping centres, four office buildings and upgrades to ten existing office sub-metering sites. The installed sub-metering includes an on-going monthly reporting and alarm service to ensure that inefficiencies are identified early and that savings will continue to be realised	1000000	179000	3000000	>3 years
Energy efficiency: building services	Durack Centre, Perth WA: measures include: - Replacement of the pneumatic HVAC control system with intelligent BMS Control strategies including VAV control systems/ AHU controllers; - Replacement of VAV controllers, installation of air handling unit controls and VSD's; - Replacing the low load chiller and installing an automatic condenser tube cleaning system; - Replacing house and tenancy lighting with high efficiency lighting and control systems; - Installation of intelligent sub-metering to monitor and track energy consumption against targets - A system referred to as 'The Edge' has been installed to allow for rapid identification of operational problems or energy wastage and allows for these to be rectified immediately.	728000	130000		>3 years
Energy	66 Waterloo Road, Macquarie Park, NSW. - figure shown as kg/m2 - Recommissioning	37	82000		

Activity type	Description of activity	Estimated annual CO2e savings	Annual monetary savings (unit currency)	Investment required (unit currency)	Payback period
efficiency: building services	the chiller plant and modifying the BMS controls; - Recommissioning the lighting systems which were not behaving to design intent; - Fine-tuning of the air-conditioning plant; and - Installing lighting motion sensors in the car park and lobby areas. - We also worked with the building tenants to ensure that cleaners did not turn on the air conditioning whilst cleaning the tenancy areas overnight.				
Energy efficiency: building services	We continued to install sub-metering systems across HVAC, lighting and other site end uses to an additional 22 shopping centres, four office buildings and upgrades to ten existing office sub-metering sites. The installed sub-metering includes an on-going monthly reporting and alarm service to ensure that inefficiencies are identified early and that savings will continue to be realised	4000000	738000		>3 years

3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Marginal abatement cost curve	At an organisational level, we use carbon abatement cost curves to identify specific abatement opportunities and the costs to implement these measures. The curves enable us to quickly model the costs of reducing emissions across our entire asset portfolio, as well as at the individual asset level. The estimates are based on Stockland carbon abatement data, ensuring a high level of confidence in the results returned.
Compliance with regulatory requirements/standards	Compliance with state and federal regulation on energy efficiency is contributing to investment in more efficient design and better management of our projects. We aim to stretch beyond these increasing compliance requirements.
Other	Minimum development and operations standards: Embedding minimum standards for energy efficiency is driving investment in emissions reduction activities across our organisation. Our Commercial Property business has development and operational minimum green rating performance standards, and our Residential and Retirement Living businesses have minimum energy efficiency requirements for all projects, including maximising the solar orientation of sites, providing energy efficient lighting in public spaces, and connecting dwellings to reticulated natural gas or LPG where available.
Other	Demand for green buildings - rating benchmarks: Using the NABERS Energy rating tool to benchmark our building performance, we are improving energy efficiency through capital investment in high-efficiency chillers, building management

Method	Comment
	systems, lighting controls and variable speed drivers. We have made a commitment to achieve a NABERS Energy portfolio average of 4.5 Star for our office portfolio by FY14.

3.3d

If you do not have any emissions reduction initiatives, please explain why not

Page: 4. Communication

4.1

Have you published information about your company's response to climate change and GHG emissions performance for this reporting year in other places than in your CDP response? If so, please attach the publication(s)

Publication	Page/Section Reference	Identify the attachment
In annual reports (complete)	Climate Change and Our Environment - Page 76-99	Corporate Responsibility and Sustainability Report 2011
In other regulatory filings (complete)	Stockland Energy Efficiency Opportunities Submission 2010	Stockland-EEO-public-report-2010-2011.pdf
In voluntary communications (complete)	FY11 Results Presentation - Carbon Price - Page 13	FY11_Results_Presentation.pdf
In annual reports (complete)	Shareholder Review 2011 - Page 6	Stockland Shareholder Review 2011
In voluntary communications (complete)	Stockland Climate Change Position Statement	Stockland_Climate_Change_Position_Paper.pdf

Attachments

https://www.cdproject.net/Sites/2012/70/17770/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/4.Communication/Stockland_Climate_Change_Position_Paper.pdf
https://www.cdproject.net/Sites/2012/70/17770/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/4.Communication/Stockland-EEO-public-report-2010-2011.pdf
https://www.cdproject.net/Sites/2012/70/17770/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/4.Communication/Corporate Responsibility and Sustainability Report 2011.pdf
https://www.cdproject.net/Sites/2012/70/17770/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/4.Communication/FY11_Results_Presentation.pdf
https://www.cdproject.net/Sites/2012/70/17770/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/4.Communication/Stockland Shareholder Review 2011.pdf

Module: Risks and Opportunities [Investor]

Page: 2012-Investor-Risks&Opps-ClimateChangeRisks

5.1

Have you identified any climate change risks (current or future) that have potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation
Risks driven by changes in physical climate parameters
Risks driven by changes in other climate-related developments

5.1a

Please describe your risks driven by changes in regulation

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
REG 1	Emission reporting obligations	National Greenhouse and Energy Reporting Act (NGERA): The NGERA is a national system for reporting greenhouse gas emissions and energy consumption and production by corporations. We sought advice in preparation for our first NGERS report in October 2009, accounting for emissions in FY09. Our preparation has included: • Improving the quality of our emissions data collection and analysis system, known as the Climate Change Action Plan (CCAP) online reporting and analysis tool, • Preparing a gap analysis to identify and then confirm that data sets are captured by the data system, • Seeking legal advice on the application of the NGERA to Stockland, • Engaging with property peers to develop an 'Industry View Document' to assist with the interpretation of the NGERA, and the implementation of NGERS reporting for property organisations and those contracting to property organisations. In working towards meeting the requirements of NGERS, Development Managers, Facility Managers and Operations Managers have been engaged, along with many of their impacted contractors, to make them aware of these new reporting requirements. Responsibility for greenhouse gas emissions data collection is being transferred from the sustainability teams to our group and business unit finance teams to support the level of rigour and accuracy required by the NGERA.	Increased operational cost	Current	Direct	Virtually certain	Low
REG 2	Product efficiency regulations and standards	Commercial Building Disclosure: The Australian Federal Government's Ministerial Council on Energy agreed in December 2007 to a package of energy efficiency measures 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 commenced in late 2010. The first phase requires disclosure of NABERS Energy Star ratings for buildings over 2000m2. Mandatory	Increased operational cost	Current	Direct	Virtually certain	Low

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		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 (or possibly later). It is proposed that mandatory disclosure for other building types, including shopping centres, will be introduced in future years.					
REG 3	General environmental regulations, including planning	Planning Approvals and Climate Change Assessments: 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.	Reduction/disruption in production capacity	Current	Direct	Likely	Low-medium
REG 4	Product efficiency regulations and standards	Building Code of Australia - Amendments: The Building Code of Australia 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. Changes to the code include requirements for increased energy efficiency performance and requirements for renewable energy.	Increased capital cost	Current	Direct	More likely than not	Low
REG 5	Product efficiency regulations and standards	National Strategy on Energy Efficiency: The National Strategy on Energy Efficiency was released by COAG 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.	Increased operational cost	1-5 years	Direct	Very likely	Low
REG 6	Carbon taxes	Carbon Price: The Australian Government is implementing the first stage of a national carbon pricing mechanism on 1 July 2012 – as set out in the Clean Energy Act 2011. The scheme will commence with a fix carbon price, transitioning to a cap and trade mechanism in 2015. Stockland will not be directly liable	Increased operational cost	Current	Direct	Very likely	Low

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		to purchase credits under the scheme, however Stockland will be impacted principally through increased energy costs.					
REG 7	Product efficiency regulations and standards	The Energy Efficiency Opportunities (EEO) Act aims to improve the identification and evaluation of energy efficiency opportunities by large energy using businesses and encourages implementation of cost-effective opportunities.	Increased operational cost	Current	Direct	Virtually certain	Low

5.1b

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; and (iii) the costs associated with these actions

REG 1 - NGER Act

i) Significant penalties apply for non-compliance with the NGERA with maximum civil penalties of $220,000 and daily penalty provisions for continuing offences. CEOs of corporations can also be held personally liable.
ii) To manage the risk of inaccurate data, we have subsequently transferred the collection of our greenhouse gas data from our sustainability teams to our group and business unit finance teams. Greenhouse gas is now collected through our accounts system and audited to the same level of rigour as our financial data.
iii) The costs associated with meeting the compliance requirements include external advice: including legal determination of operational control and the establishment of emissions inventories for our Residential and Retirement Living businesses, which were previously outside the boundary of our voluntary emissions reporting. We also incurred costs in the development of more effective and integrated data management systems to reach the level of accuracy required by the legislation.

REG 2 - Commercial Building Disclosure

i) Under the Building Energy Efficiency Disclosure Act 2010, from 1 November 2010 mandatory obligations were introduced and applied to many commercial buildings. Most sellers or lessors of offices space of 2,000 square meters or more were required to obtain and disclose an up-to-date energy efficiency rating. Civil penalties of up to $110,000 for the first day and $11,000 for each subsequent day may be imposed by a Court for each breach of a disclosure obligation.
ii) Before the legislation was introduced, Stockland was well-placed to comply with the legislation due to rating commitments already introduced in our Commercial Property business. Stockland now has a procedure in place to ensure marketing and ratings are kept up-to-date to ensure compliance with the legislation.
iii) Costs associated with compliance with the Building Energy Efficiency Disclosure Act include ensuring that our NABERS ratings are up-to-date and addressing the unintended consequences of legislation (the inclusion of non-office asset types). The obligation to rate non-office assets has since been removed from the legislation.

REG 3 - Planning Approvals and Climate Change Assessment

i) The potential financial impact of planning approval legislation changes due to climate change assessments is reflected in the holding costs associated with the development delay. The specific figure can vary for different projects and their size.
ii) Stockland provides leading practices in managing climate change risk. Projects are now required to meet minimum development requirements that include climate change assessments. These standards are supported by a Group wide climate change adaptation strategy that maps the location and potential impacts of climate change and the associated adaptation options.
iii) The costs associated with undertaking climate change assessments are now integrated into business practices as documented in our sustainability policies. Each Stockland business is currently prioritising areas of adaptation action and factoring climate change risk into future acquisition decisions.

REG 4 - Building Code of Australia Amendments - Energy Efficiency

i) The potential financial implications of amendments to the Building Code of Australia are varied. The changes require increased energy efficiency performance of our Commercial Property assets and housing within our communities.
ii) Stockland's Commercial Property Sustainability Policy identifies minimum energy efficiency requirements that meet and exceed these changes in legislation. Our Residential business is working with partner builders on display houses to showcase high performance, energy efficient housing that exceed the changes required by the BCA.
iii) A study conducted by the Residential Development Council estimated the impact of increased energy efficiency requirements on the housing industry at between $300 - $4000 per dwelling.

REG 6 - National Strategy on Energy Efficiency

i) The National Strategy on Energy Efficiency intends to provide medium to long term industry targets as part of a pathway for low-carbon buildings. The potential stringency of these targets and the nature of the legislation that will support these targets are still uncertain. Therefore, we are presently unable to quantify what the financial implication of the strategy.
ii) We have applied energy efficiency measures across all of our assets and new projects. These are supported by targets and business commitments.
iii) The implementation of energy efficiency initiatives is now integrated into our business operations and business unit sustainability policies.

REG 7 - Carbon Price

i) The primary impact of a carbon pricing scheme on Stockland will be through the price of energy. We have modelled and assessed the impact and have found it to be initially low. Wider effects of a carbon price will include cost impacts on construction and building materials.
ii) Our focus on energy efficiency over the last several years has significantly reduced the impact of a carbon price on our operational costs. We are working with suppliers to educate and assist them in understanding their emissions and how to reduce their emissions profile.
iii) A price on carbon will also lead to increased energy costs for residents and tenants. Government has put in place compensation programs that will offset some costs for some stakeholders.

REG 8 - Energy Efficiency Opportunities Act

i) Non-compliance with the Energy Efficiency Opportunities Act can lead to civil penalties of $110,000 per offence.
ii) Stockland has managed compliance with the legislation through a combination of internal expertise and external advice to assist us in identifying opportunities.
iii) We incur costs for both dedicated internal resources and external advice in order to manage our ongoing compliance with the legislation.

Please describe your risks that are driven by change in physical climate parameters

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
PHY 1	Sea level rise	National and international studies indicate that Australian sea levels will rise up to 0.3 - 0.4m by 2050, and 0.8 - 1.0m by 2100 (on 1990 levels) threatening coastal housing and infrastructure, and creating local damage at high costs. Increasing sea levels will lead to questions exploring coastal protection versus land-use relocation. With land-use relocation comes the movement of populations and infrastructure. The initial impact on the property sector from sea level rises will most likely be from increased extreme weather events leading to storm surge rather than gradual rises in average sea levels. However, rising sea levels will exacerbate the impact of storm surges and coastal flooding as well as leading to increased rates of erosion and subsidence.	Increased capital cost	Current	Direct	Likely	Low-medium
PHY 2	Change in mean (average) temperature	More frequent 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. Change in mean average temperature will also impact the health and wellbeing of our residents.	Increased operational cost	>10 years	Direct	Likely	Low
PHY 3	Change in temperature extremes	Studies indicated that heat waves in Australia are virtually certain to increase in frequency and intensity. This will result in a reduction in quality of life for those 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. Heat waves can also lead to bushfires destroying large numbers of homes and causing fatalities.	Increased operational cost	>10 years	Direct	Likely	Low-medium
PHY 4	Tropical cyclones	Intense tropical cyclone activity increases will result in disruption by flood and high winds. Frequency and	Reduction/disruption in production capacity	Current	Direct	Likely	Low-medium

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
	(hurricanes and typhoons)	impacts of cyclonic activity may result in 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. The unpredictability and extreme nature of these events may lead to the disruption of our operations during and immediately following an event.					
PHY 5	Change in precipitation extremes and droughts	Australia is the driest inhabited continent on earth, heavily exposed to extreme heat and drought as well as large-scale flooding. These events are influenced by many factors and their occurence is difficult to estimate precisely, however, the trend is towards larger, more intense events. Droughts will see the cost of water utilities increase as water security becomes a more serious issue for Australia. Large scale flooding will impact the operation of our business and a disruption to services.	Increased capital cost	Current	Direct	Likely	Low
PHY 6	Induced changes in natural resources	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 and water supply.	Increased operational cost	Current	Direct	Likely	Low-medium

5.1d

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; and (iii) the costs associated with these actions

PHY 1 - Sea Level Rise

i) Sea level rise is becoming more prominent in local government planning legislation. Non-compliance will result in planning approval delays. The cost of these

delays can vary with project size and location.
ii) Stockland has embedded minimum standards to address climate change risk across the organisation, including assessments of sea level rise. Stockland also has also developed a Climate Change Adaptation Strategy that maps projected climate change and identifies the adaptation actions required.
iii) Climate change assessments are embedded in Stockland business requirements.

PHY 2 - Change in mean (average) temperature
i) The potential financial implications of a change in mean temperature are predominately the rise in cost of the rise in energy demand.
ii) Stockland has implemented minimum energy efficiency standards that will decrease the impact of the demand on the network and the associated costs.
iii) Energy efficiency initiatives and standards are embedded in our operations.

PHY 3 - Change in temperature extremes
i) Changes in temperature extremes will lead to an increase in the demand for heating and cooling leading to an increase in the demand for energy. We can also expect an increase in the demand for climate responsive buildings, particularly housing. The financial implications of bushfires can vary considerably.
ii) Stockland has minimum requirements in its sustainability policies to address changes in temperature extremes, including requirements for bushfire assessment and management and the more efficient design of buildings and lots to lower the demand for energy.
iii) Minimum requirements for bushfire assessment and efficient design are integrated into our operations.

PHY 4 - Tropical cyclones
i) The potential key financial implications of tropical cyclones includes damage to, or loss of property and increasing insurance premiums of assets - for both assets owned and managed by us, and also our residents.
ii) Stockland has already done significant work in this area to reduce the risk to its assets in North Queensland. Mapping and identification of adaptation actions in relation to cyclones are included in our Climate Adaptation Strategy.
iii) Costs to improve the structural and weather resilience of property has been factored into recent capital works programs.

PHY 5 - Change in precipitation extremes and droughts
i) The potential financial implications of flooding on our organisation is through the inability to access and utilise our assets. The financial implication of droughts will be through the increased cost of water.
ii) Stockland's climate change adaptation strategy has mapped and identified the adaptation actions associated with flooding and an increase in intense precipitation. We are also implementing Water Sensitive Urban Design in our residential community projects.
iii) Undertaking flooding assessment is part of our acquisition and operation procedures and sustainability policies. Our residential communities sustainability policy includes water sensitive urban design - and this approach to water management is now integrated into civil works and landscape design.

PHY 6 - Induced changes in natural resources
i) The potential financial implications are increased demand on water and energy and the security of those utilities.
ii) Stockland is exploring renewable energy sources and has implemented a number of renewable innovations on various projects, including solar, tri-generation and wind. Stockland manages and reduces its water consumption via its commitment to targets and water sensitive urban design.
iii) Renewable energy project costs vary depending on the location and capacity of the technology. Water reductions are included in sustainability policies for each of our businesses.

Please describe your risks that are driven by changes in other climate-related developments

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
OTH 1	Uncertainty in market signals	Stockland anticipates the cost of energy to continue to increase in the coming years. Stockland also anticipates that the cost of carbon intensive building materials will increase under a carbon price. Stockland recognises that cost increases may vary, as a consequence of compensation to emissions intensive trade exposed industries.	Increased operational cost	Current	Direct	Likely	Low
OTH 2	Reputation	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 advisors place increasing value on intangible dimensions such as risk management, brand, reputation and employee engagement.	Reduced stock price (market valuation)	Current	Direct	Likely	Medium
OTH 3	Changing consumer behaviour	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 that their intention to only occupy buildings that meet minimum sustainability (energy efficiency) requirements.	Reduced demand for goods/services	Current	Direct	Likely	Low

5.1f

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; (iii) the costs associated with these actions

OTH 1 - Uncertainty in market signals

i) Potential financial implications include increased cost of energy and possible increases in the cost of construction and materials.
ii) Stockland's sustainability policies set out requirements and targets for energy efficiency. This translates into minimum requirements for each asset and project. Stockland aims to use less carbon intensive materials where practical, however the cost impact of a carbon price on building materials is unclear.
iii) Actions to reduce carbon emissions are embedded in our operations. Impacts of a carbon price on our value chain (our customers and suppliers - especially building materials) is not yet clear.

OTH 2 - Reputation

i) The financial implications associated with reputational damage have not been quantified.
ii) Stockland manages reputation risk in its approach to risk management and sustainability, with actions overseen by dedicated board committees. Stockland reviews and identifies material risk and then engages with stakeholders to better manage and reduce these risks and thereby strengthen the organisation's reputation.
iii) Our approach to risk management and stakeholder engagement is embedded in our operations.

OTH 3 - Changing consumer behaviour

i) The potential financial risk relates to the reduced demand for our product, increasing vacancy and lower rental returns.
ii) Stockland has committed to achieving an office portfolio average rating of NABERS Energy 4.5 Stars. This will allow the majority of our portfolio to meet the high standards that some tenants demand.
iii) $22 million has been allocated to sustainability in Commercial Property to help achieve the 4.5 star (and our energy efficiency) target.

5.1g

Please explain why you do not consider your company to be exposed to risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

5.1h

Please explain why you do not consider your company to be exposed to risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

5.1i

Please explain why you do not consider your company to be exposed to risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Page: 2012-Investor-Risks&Opps-ClimateChangeOpp

6.1

Have you identified any climate change opportunities (current or future) that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation
Opportunities driven by changes in physical climate parameters
Opportunities driven by changes in other climate-related developments

6.1a

Please describe your opportunities that are driven by changes in regulation

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
OPP 1	Emission reporting obligations	National Greenhouse and Energy Reporting Act (NGERA): 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 streamline and accurate GHG emission 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.	Reduced operational costs	1-5 years	Direct	Virtually certain	Low
OPP 2	Product labeling regulations and standards	Commercial Building Disclosure: 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. The NABERS Water ratings obtained by the business also place Stockland in a	Other: Competitive advantage	Current	Direct	Virtually certain	Low

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
		good position if the Australian government was to introduce regulation on water efficiency disclosure and performance (in the same way the regulation has been introduce on energy efficiency disclosure and performance).					
OPP 3	Product efficiency regulations and standards	Energy Efficiency Opportunities Act: 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, establishing targets and developing communications around Stockland's carbon abatement potential and performance.	Reduced operational costs	Current	Direct	Likely	Low
OPP 4		Planning approvals and climate change assessments: 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.	Wider social benefits	Current	Direct	Likely	Low

6.1b

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

OPP 1 - National Greenhouse and Energy Reporting Act
i) Stockland realised the financial opportunity to embed the collection of carbon data as part of the accounts payable system. The associated cost was the instalment and integration of software tools.
ii) Stockland is managing the opportunity through our sustainability managers analysing our data to identify further opportunities to reduce emissions and operational costs.
iii) Over and above the cost of reporting, there are no additional costs associated with this opportunity.

OPP 2 - Commercial Building Disclosure Act
i) Stockland's commitment to leading sustainability practices meant the organisation was in a good position when the Commercial Building Disclosure Act was introduced - with the majority of the office portfolio already meeting the new legislation requirements.
ii) Stockland is managing this opportunity by investing the reduced operational cost into the better performance for our assets.
iii) The costs have been avoided.
OPP 3 - Energy Efficiency Opportunities Act
i) The financial implications of the Energy Efficiency Opportunities Act includes the identification and realisation of reduced operation costs.
ii) Stockland is managing this opportunity by using energy efficiency assessments as part of our submission to the Federal Government for 'Green Building Fund' grants to help us realise these opportunities.
iii) The cost reductions associated with this opportunity vary depending on the scale and technology identified.
OPP 4 - Planning approvals and climate change assessments
i) The potential financial implications are the avoidance of planning approval delays and the associated holding costs.
ii) Stockland is managing this opportunity by proactively engaging with key stakeholders, including local government, on our approach to climate change assessment. Our understanding and assessments allow us to positively engage with government and our stakeholders on the issue of climate change.
iii) The cost associated with these actions are embedded in our stakeholder engagement processes - required for all assets and projects.

6.1c

Please describe the opportunities that are driven by changes in physical climate parameters

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
POP 1	Change in mean (average) temperature	Increased traffic in retail centres	Increased demand for existing products/services	Current	Direct	Likely	Low
POP 2	Induced changes in natural resources	More efficient assets - competitive advantage and market demand	Increased demand for existing products/services	1-5 years	Direct	Likely	Low-medium
POP 3	Change in temperature extremes	Market demand for more efficient design	Increased demand for existing products/services	Current	Direct	Likely	Low-medium
POP 4		Place of refuge in extreme weather events - cyclones	Wider social benefits	Current	Direct	Likely	Low-medium

6.1d

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

POP 1 - Increased traffic in retail centres

i) Shifts whereby the climate becomes less comfortable may lead to people being attracted to spending more time within climate controlled or moderated buildings such as retail centres, and associated public gathering and community facilities.
ii) Ensure that centres are designed to respond to climatic conditions, employing passive and active design principles and thereby providing a comfortable environment in which to spend time.
iii) Good design principles addressing comfort have long been embedded in our design, development and management processes.

POP 2 - More efficient assets

i) Eco-efficient buildings and communities lead to reduced energy, water and waste management costs. Assets that employ leading green design principles generally also have improved indoor air quality. Taking a sustainable approach to developing and managing assets is also responding to a growing interest to some within our market (with an interest in taking action in response to climate change as well as benefiting from longer-term cost benefits from reduced energy and water costs), and is increasingly an expectation of approval authorities - and in turn, this approach contributes reputational benefits. In particular state and federal governments have set minimum standards as occupiers of energy efficient buildings (as measured by NABERS) and corporate tenants are increasingly attracted to green rated buildings (both high rated NABERS and Green Star buildings).
ii) Eco-efficient (and broader sustainability) design and management approaches are informed by the use of market supported building rating tools such as Green Star (principally used to guide building, and soon to be community-scale design) and NABERS (principally used to benchmark the eco-efficiency of existing office and retail buildings). Eco-efficient design and management practices are captured in sustainability policies for each of our business units. We have an ongoing program of striving to meet energy and greenhouse gas emissions intensity reduction targets, with performance managed by regular eco-efficiency reporting and ratings, including monthly performance communicated to our Executive Committee and Board.
iii) Costs include design and management to higher standards, investment in training for key job families as well as increased capital investment in order to attain higher standards. Stockland is investing $22 million over five years (FY09-14) to achieve a 20% reduction in energy and GHG intensity in our office and retail portfolios.

POP 3 - More efficient design

i) With shifts in temperature extremes, we can expect demand for housing and communities that respond to climate and specifically temperature, as customers pursue "thermally comfortable" living, work and shopping spaces.
ii) Ensure that shopping centres (and other commercial properties) retirement villages and residential communities are designed to respond to climatic conditions, employing passive and active design principles and thereby providing a comfortable and liveable environment. Our actions are guided by our sustainability strategies and policies developed specifically for each of our business units. In addition we are piloting the development of tools such as Green Star Custom to inform and rate the design and construction of our Retirement villages and we are significantly involved in the development of a Green Star Communities tool to inform and rate the design and performance of mixed use residential communities. Current retail development projects are registered for Green Star Retail. Increasingly we are engaging with our market on efficient design. For example, we have retail design guidelines (supported by green leases) to support our retailers in building and occupying more eco-efficient retail spaces.
iii) Designing for climate responsiveness and adherence to design tools such as Green Star is now increasingly embedded in our development practices. There are some additional costs associated with targeting top ratings, however this is offset by reputational and brand benefits and supported by anticipated longer-term lower operational costs.

POP 4 - Place of refuge in extreme weather events

i) In the past year our retail centres in North Queensland have played an important role in providing support and refuge to local communities during extreme weather events. Our support was aided, and in some cases managed by emergency and social services.
ii) We are presently developing pans and guidelines to aid management in how best to respond and manage assets when we are requested to accommodate the public during an emergency such as an extreme weather events, immediately following the event and during the recovery phase.
iii) Costs with these actions are largely borne by the wider community, with considerable support provided by emergency and social services agencies.

6.1e

Please describe the opportunities that are driven by changes in other climate-related developments

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
OCR 1	Reputation	Resilient portfolio - leadership - Government engagement	Increased demand for existing products/services	Current	Direct	Likely	Low-medium
OCR 2	Induced changes in human and cultural environment	Legacy of developments	Wider social benefits	>10 years	Direct	Likely	Low-medium
OCR 3	Reputation	Supporting communities in which we operate	Wider social benefits	1-5 years	Direct	Likely	Low-medium

6.1f

Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

OCR 1 - Resilient portfolio
i) Through demonstrating leadership through embedding sustainability practices (including our climate change action plan) in all that we do, we recognise that we strengthen our license to operate within the community, including our relationship with government.
ii) Our climate change action plan encompasses monitoring emissions and reducing emissions, adapting to climate risk, innovation and communicating our performance, practices and position in responding to climate change. These practices are evident in our applications for proposed projects, and our performance is demonstrated particularly in recent projects attaining public recognition, and in some cases high Green Star (and other) ratings.
iii) Sustainability practices are now integrated into business practices including our development practices and are documented in our sustainability strategies and policies for each of our business units.

OCR 2 - Legacy of developments

i) We expect that designing for eco-efficiency and climate adaption (as well as other sustainability principles) will contribute to the resilience of our communities. We know that over the longer-term, helping to create resilient communities will in turn lead to reputational and marketplace benefits for our business.
ii) To support the community resilience, we invest in community development across our communities and assets. We continue to research climate risk and we are supporting the development of tools such as Green Star Communities (which will address both social and environmental indicators in the design and performance of mixed use residential communties).
iii) Community development practices are now integrated into our asset management and development practices, supported by a team of eight dedicated community development managers. There are costs associated with ongoing research and undertaking climate risk reviews in order to monitor and respond to climate risks.

OCR 3 - Supporting communities in which we operate
i) We target social investment and community development in the communities in which we operate.
ii) Our giving and volunteering efforts provide support to our communities following extreme weather events - initially through cash donations, through in-kind support and ongoing volunteering assistance immediately following an event and then over time, supporting our communities as they "get back on their feet". For example, we are continuing to provide volunteering support to communities affected by the 2009 Victorian bushfires.
iii) We dedicate a $250K budget annually to support our workplace giving efforts (matching employee donations). We know that a considerable portion of workplace giving is directed to communities affected by climate-related events (bushfires, cyclones, floods and other extreme events). Volunteering by our people is under-taken during company time, however we recognise that these activities support employee engagement and provide personal and team development opportunities. In addition we have made considerable one-off donations to charities such as the Red Cross immediately folllowing extreme weather events.

6.1g

Please explain why you do not consider your company to be exposed to opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

6.1h

Please explain why you do not consider your company to be exposed to opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

6.1i

Please explain why you do not consider your company to be exposed to opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading [Investor]

Page: 7. Emissions Methodology

7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Base year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
Tue 01 Jul 2008 - Tue 30 Jun 2009	3016	120000

7.2

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
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
Other

7.2a

If you have selected "Other", please provide details below

National Greenhouse Accounts Factors 2009 and 2010 - Australian Government, Department of Climate Change and Energy Efficiency

7.3

Please give the source for the global warming potentials you have used

Gas	Reference
CO2	Other: National Greenhouse Accounts (NGA) Factors
CH4	Other: National Greenhouse Accounts (NGA) Factors
Other: N20	Other: National Greenhouse Accounts (NGA) Factors
HFCs	Other: National Greenhouse Accounts (NGA) Factors

7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data

Fuel/Material/Energy	Emission Factor	Unit	Reference
Other: Please see attached spreadsheet			

Further Information

Q7.4 Answer Attached - Excel spreadsheet with emissions factors

Attachments

https://www.cdproject.net/Sites/2012/70/17770/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/7.EmissionsMethodology/worksheet-to-input-of-EF.xlsx

Page: 8. Emissions Data - (1 Jul 2010 - 30 Jun 2011)

8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

8.2a

Please provide your gross global Scope 1 emissions figure in metric tonnes CO2e

28071

8.2b

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e - Part 1 breakdown

Boundary	Gross global Scope 1 emissions (metric tonnes CO2e)	Comment

8.2c

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e - Part 1 Total

Gross global Scope 1 emissions (metric tonnes CO2e) – Part 1 Total	Comment

8.2d

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e - Part 2

Boundary	Gross global Scope 1 emissions (metric tonnes CO2e)	Comment

8.3a

Please provide your gross global Scope 2 emissions figure in metric tonnes CO2e

130296

8.3b

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e - Part 1 breakdown

Boundary	Gross global Scope 2 emissions (metric tonnes CO2e)	Comment

8.3c

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e - Part 1 Total

Gross global Scope 2 emissions (metric tonnes CO2e) - Total Part 1	Comment

8.3d

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e - Part 2

Boundary	Gross global Scope 2 emissions (metric tonnes CO2e) - Other operationally controlled entities, activities or facilities	Comment

8.4

Are there are any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions which are not included in your disclosure?

8.4a

Please complete the table

Reporting Entity	Source	Scope	Explain why the source is excluded

8.4

Are there are any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions which are not included in your disclosure?

No

8.4a

Please complete the table

Source	Scope	Explain why the source is excluded

8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and Scope 2 figures that you have supplied and specify the sources of uncertainty in your data gathering, handling, and calculations

Scope 1 emissions: Uncertainty range	Scope 1 emissions: Main sources of uncertainty	Scope 1 emissions: Please expand on the uncertainty in your data	Scope 2 emissions: Uncertainty range	Scope 2 emissions: Main sources of uncertainty	Scope 2 emissions: Please expand on the uncertainty in your data
More than 2% but less than or equal to 5%	Data Gaps Assumptions Extrapolation Metering/ Measurement Constraints	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%. Measuring Constraints: Our Residential and Retirement Living businesses face a number of challenges reporting on the activities of their contractors and place reliance on 3rd party data.	Less than or equal to 2%	Extrapolation	

8.6

Please indicate the verification/assurance status that applies to your Scope 1 emissions

Verification or assurance complete

8.6a

Please indicate the proportion of your Scope 1 emissions that are verified/assured

More than 90% but less than or equal to 100%

8.6b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Level of verification or assurance	Relevant verification standard	Relevant statement attached
Reasonable assurance	ASAE3000	Yes - See attachments

8.7

Please indicate the verification/assurance status that applies to your Scope 2 emissions

Verification or assurance complete

8.7a

Please indicate the proportion of your Scope 2 emissions that are verified/assured

More than 90% but less than or equal to 100%

8.7b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Level of verification or assurance	Relevant verification standard	Relevant statement attached
Reasonable assurance	ASAE3000	Yes - See attachments

8.8

Are carbon dioxide emissions from the combustion of biologically sequestered carbon (i.e. carbon dioxide emissions from burning biomass/biofuels) relevant to your company?

No

8.8a

Please provide the emissions in metric tonnes CO2e

Further Information

Attached - KPMG NGERS Assurance Statement & Stockland NGERS GHG totals

Attachments

https://www.cdproject.net/Sites/2012/70/17770/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/8.EmissionsData(1Jul2010-30Jun2011)/Stockland_FINAL_NGERS_Totals.pdf
https://www.cdproject.net/Sites/2012/70/17770/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/8.EmissionsData(1Jul2010-30Jun2011)/KPMG NGERS Opinion.pdf

Page: 9. Scope 1 Emissions Breakdown - (1 Jul 2010 - 30 Jun 2011)

9.1

Do you have Scope 1 emissions sources in more than one country or region (if covered by emissions regulation at a regional level)?

No

9.1a

Please complete the table below

Country	Scope 1 metric tonnes CO2e

9.2

Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By business division
By facility
By GHG type
By activity

9.2a

Please break down your total gross global Scope 1 emissions by business division

Business Division	Scope 1 metric tonnes CO2e
Retirement Living	1780
Corporate	165
Residential	23127
Commercial Property	2999

9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 metric tonnes CO2e
Retirement Living Development - Victoria	12
Retirement Living Development - New South Wales	774
Retirement Living Development - Queensland	187
Retirement Living Development - Western Australia	2
Retirement Living Operations - New South Wales	143
Retirement Living Operations - Queensland	2
Retirement Living Operations - South Australia	1
Retirement Living Operations - Victoria	659
Brisbane Head Office	38
Melbourne Head Office	75
Perth Head Office	28
Sydney Head Office	24
Residential Development - New South Wales	3630
Residential Development - Queensland	13175
Residential Development - Victoria	3480
Residential Development - Western Australia	2842
Commercial Property - Australian Capital Territory	306
Commercial Property - New South Wales	2060
Commercial Property - Queensland	105
Commercial Property - South Australia	0
Commercial Property - Victoria	358
Commercial Property - Western Australia	170

9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 metric tonnes CO2e
CO2	26708
CH4	93
Other: N20	221
HFCs	1050

9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 metric tonnes CO2e
Natural Gas	2362
Liquified Natural Gas	7
Liquified Petroleum Gas	16
Diesel Oil	23630
Ethanol (Transport)	1
Gasoline	712
Biodiesel	38
Commercial Air Conditioning - HFC stock	1050
Coal mine waste gas (Decommissioned underground mine)	12
Petroleum based greases	25
Fuel oil	218

Further Information

Facilities reported as aggregates - as required by NGERS legislation.

Aggregated facility data contains assets that are within one state or territory and are attributable to one industry sector in accordance with NGER Regulations. The

facilities within the aggregate emit less than 25 kilotonnes of carbon dioxide equivalents within the reporting year.

Page: 10. Scope 2 Emissions Breakdown - (1 Jul 2010 - 30 Jun 2011)

10.1

Do you have Scope 2 emissions sources in more than one country or region (if covered by emissions regulation at a regional level)?

No

10.1a

Please complete the table below

Country	Scope 2 metric tonnes CO2e

10.2

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By business division
By facility
By activity

10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 metric tonnes CO2e

Business division	Scope 2 metric tonnes CO2e
Retirement Living	6481
Corporate	1818
Residential	3067
Commercial Property	118930

10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 metric tonnes CO2e
Retirement Living Operations - New South Wales	1954
Retirement Living Operations - Queensland	636
Retirement Living Operations - South Australia	139
Retirement Living Operations - Victoria	3708
Brisbane Head Office	164
Melbourne Head Office	354
Perth Head Office	76
Sydney Head Office	1224
Residential Development - New South Wales	768
Residential Development - Queensland	977
Residential Development - Victoria	1051
Residential Development - Western Australia	271
Commercial Property - Australian Capital Territory	5891
Commercial Property - New South Wales	57659
Commercial Property - Queensland	35003
Commercial Property - South Australia	4
Commercial Property - Victoria	12597
Commercial Property - Western Australia	7776
Retirement Living - Western Australia	43

10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2 metric tonnes CO2e
Electricity	129302
Electricity (not from the grid)	994

Further Information

Facilities are reported as aggregates - as required by NGERS legislation.

Aggregated facility data contains assets that are within one state or territory and are attributable to one industry sector in accordance with NGER Regulations. The facilities within the aggregate emit less than 25 kilotonnes of carbon dioxide equivalents within the reporting year.

Page: 11. Emissions Scope 2 Contractual

11.1

Do you consider that the grid average factors used to report Scope 2 emissions in Question 8.3 reflect the contractual arrangements you have with electricity suppliers?

Yes

11.1a

You may report a total contractual Scope 2 figure in response to this question. Please provide your total global contractual Scope 2 GHG emissions figure in metric tonnes CO2e

11.1b

Explain the basis of the alternative figure (see guidance)

11.2

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

11.2a

Please provide details including the number and type of certificates

Type of certificate	Number of certificates	Comments

Page: 12. Energy

12.1

What percentage of your total operational spend in the reporting year was on energy?

More than 5% but less than or equal to 10%

12.2

Please state how much fuel, electricity, heat, steam, and cooling in MWh your organization has consumed during the reporting year

Energy type	MWh

Energy type	MWh
Fuel	255361
Electricity	141496
Heat	0
Steam	0
Cooling	0

12.3

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Biodiesels	3094
Diesel/Gas oil	93908
Other: Fuel oil	822
Other: Ethanol	56
Other: Gasoline	2843
Liquefied Natural Gas (LNG)	40
Liquefied petroleum gas (LPG)	74
Other: Petroleum based greases	246
Natural gas	12779

Page: 13. Emissions Performance

13.1

How do your absolute emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Increased

13.1a

Please complete the table

Reason	Emissions value (percentage)	Direction of change	Comment
Acquisitions	3	Increase	Stockland acquired Aevum Retirement Living business in FY11.
Change in methodology	8	Increase	Stockland improved its collection of contractor data, in particular fuel consumption.

13.2

Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for Change
210.482	metric tonnes CO2e	unit total revenue	1.4	Decrease	Stockland achieved a 8.7 per cent increase in Underlying Profit in FY11. This result is reflective of the growth achieved across all three business units and an expanded reporting boundary.

13.3

Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for Change
121.261	metric tonnes CO2e	FTE Employee	2	Increase	This result is reflective of the growth achieved across all three business units and an expanded reporting boundary.

13.4

Please provide an additional intensity (normalized) metric that is appropriate to your business operations

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for Change
0.073	metric tonnes CO2e	square meter	4	Decrease	Retail portfolio greenhouse gas intensity: Stockland's retail portfolio has made modest improvements in its energy efficiency performance achieving a turnaround in FY11 as compared to poor results in FY10. Stockland remains committed to a 20 per cent greenhouse gas intensity reduction by FY14.
0.0851		square meter	12	Decrease	Office portfolio greenhouse gas intensity: Stockland's office portfolio has continued to deliver energy efficiency within exisitng and new buildings through capital investment in high-efficiency chillers, building management systems, lighting controls and variable speed drives. Stockland remains committed to a 20 per cent greenhouse gas intensity reduction by FY14.

Page: 14. Emissions Trading

14.1

Do you participate in any emission trading schemes?

No, and we do not currently anticipate doing so in the next two years

14.1a

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership

14.1b

What is your strategy for complying with the schemes in which you participate or anticipate participating?

14.2

Has your company originated any project-based carbon credits or purchased any within the reporting period?

No

14.2a

Please complete the following table

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits retired	Purpose e.g. compliance

Page: 2012-Investor-Scope 3 Emissions

15.1

Please provide data on sources of Scope 3 emissions that are relevant to your organization

Sources of Scope 3 emissions	metric tonnes CO2e	Methodology	If you cannot provide a figure for emissions, please describe them

Sources of Scope 3 emissions	metric tonnes CO2e	Methodology	If you cannot provide a figure for emissions, please describe them
Fuel- and energy-related activities (not included in Scopes 1 or 2)	21275	Total transmission and production losses from purchased electricity, gas and fleet fuel. Emissions factors come from the National Greehouse Accounts Factors 2009 and 2010.	
Business travel	1939	Total care hire and air travel emissions. Air travel emissions factors come from the WRI transport emission factor guidance, 2009 and the GHG Protocol. Car hire emission factors come from the National Greenhosue Accounts 2010.	

15.2

Please indicate the verification/assurance status that applies to your Scope 3 emissions

Verification or assurance complete

15.2a

Please indicate the proportion of your Scope 3 emissions that are verified/assured

More than 90% but less than or equal to 100%

15.2b

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Level of verification or assurance	Relevant verification standard	Relevant statement attached
Limited assurance	Other: GHG Protocol Corporate Standard	Yes - see attachments

15.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

15.3a

Please complete the table

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Emissions reduction activities	8	Decrease	Stockland's absolute electricity purchased and fleet fuel emissions decreased in FY11.
Business travel	Change in methodology	33	Increase	Stockland's capture of air travel emissions improved in FY11.

Module: Sign Off

Page: Sign Off

Please enter the name of the individual that has signed off (approved) the response and their job title

Siobhan Toohill, General Manager, Corporate Responsibility & Sustainability