

**Module: Introduction****Page: Introduction****CC0.1****Introduction**

Please give a general description and introduction to your organization.

Stockland has a long and proud history of creating places that meet the needs of our customers and communities. Stockland was founded 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, owning, and managing a large portfolio of shopping centres, industrial and office assets, residential communities, and retirement living villages.

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

This survey discloses information regarding our climate change management approach and greenhouse gas emissions performance for the 2013 financial year, ending 30 June 2013.

We publish independently, assured data, commitments and commentary as part of our Annual Review, Sustainability Reporting and our requirements under the Australian Government's National Greenhouse and Energy Reporting Act.

Our Annual Review can be found at <http://www.stockland.com.au/reports/2013/index.htm> and our Sustainability Reporting and previous CDP/Carbon Disclosure Project submissions can be found at [www.stockland.com.au/about/sustainability.htm](http://www.stockland.com.au/about/sustainability.htm)

Stockland's portfolio is spread over three business units – Commercial Property, Residential and Retirement Living. An overview of the portfolio, at 30 June 2013, is provided below. Our property portfolio can also be found in detail online at <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9MTk4MDY0fENoaWxkSUQ9LTF8VHlwZT0z&t=1>

**Commercial Property**

Stockland's Commercial Property business accounts for approximately 70% of our asset mix and comprises three asset types:

Retail - We are one of the largest retail property owners, managers and developers in Australia, with 41 retail centres valued at approximately \$5.3 billion. The properties accommodate more than 3,200 tenants and generate in excess of \$5.8 billion in retail sales per annum.

Industrial - The portfolio comprises 13 properties with just under one million square metres of building area valued at \$0.8 billion. Properties are strategically positioned in key locations for logistics, infrastructure and employment.

Office - We have 16 office buildings valued at \$1.6 billion. Our focus is on maximising investment returns across the portfolio.

Residential - We are a leading residential developer in Australia, focused on delivering a range of masterplanned and mixed-use communities in growth areas across the country. The residential portfolio has 84,400 lots remaining with an end-market value of approximately \$21.2 billion.

Retirement Living - we are one of the top three retirement living operators in Australia. We have 8,082 established units across five states and a short-medium term development pipeline of around 4,050 units.

Stockland has identified changes in the climate as a key challenge as well as opportunity for the organisation. Along with risks and opportunities associated with mitigating carbon emissions and enhancing the energy efficiency of our portfolio, we are taking active steps to increase the resilience of our assets and reduce their potential vulnerability by proactively adapting to a changing climate.

Our Commercial Property business is the largest contributor to greenhouse gas emissions in the Group and presents the greatest opportunity for emissions reduction. As it is our most established asset class, and the one over which we have the greatest degree of control, we have also used it to pilot our work in climate vulnerability and resilience. As such, the majority of our initiatives and achievements to date have related to the Commercial Property business. Over the past few years we have been transferring these learnings to our other business units.

In the years ahead we will continue to explore and identify opportunities for energy efficiency, climate change mitigation, and improved climate resilience and adaptation across all three of our business units.

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## CC0.2

### 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**

Sun 01 Jul 2012 - Sun 30 Jun 2013

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**CC0.3**

**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

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**CC0.4**

**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 (\$)

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**CC0.6**

**Modules**

As part of the request for information on behalf of investors, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors, companies in the oil and gas industry, companies in the information technology and telecommunications sectors and companies in the food, beverage and tobacco sectors 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 not appear below but will automatically appear in the navigation bar when you save this page. If you want to query your classification, please email [respond@cdp.net](mailto:respond@cdp.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.cdp.net/en-US/Programmes/Pages/More-questionnaires.aspx>.

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## Further Information

**Module: Management**

**Page: CC1. Governance**

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### CC1.1

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

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

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### CC1.1a

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

Sustainability Board Committee

The purpose of the Committee is to ensure that the Group operates its business ethically, responsibly and sustainably and to consider the social, environmental and ethical impact of our business activities; major corporate responsibility and sustainability initiatives and changes in policy; and stakeholder communications about Stockland's sustainability policies and performance.

From 1 July 2012, all Directors of the Board were members of the Sustainability Committee, reflecting the integral role that sustainability plays in Stockland's business operations and brand value. This enables all Directors to be well informed about and engaged in policies and decisions relating to our economic, social, and environmental performance. The Sustainability Committee met three times in FY13.

A sustainability update is submitted to the Executive Committee (ExCo) and to the Board each month, which:

- provides updates relating to our climate change and energy efficiency strategies and initiatives
- tracks monthly progress against our carbon reduction targets
- provides background information to support approval requests for significant strategic changes and/or the implementation of new programs and initiatives relating to energy and climate change.

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**CC1.2**

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

Yes

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**CC1.2a**

**Please provide further details on the incentives provided for the management of climate change issues**

<b>Who is entitled to benefit from these incentives?</b>	<b>The type of incentives</b>	<b>Incentivized performance indicator</b>
Corporate executive team	Monetary reward	The Executive team have performance indicators linked to our greenhouse gas emission targets.
Chief Executive Officer (CEO)	Monetary reward	The CEO (along with other members of the executive team) has a performance indicator linked to greenhouse gas emission targets.
Facility managers	Monetary reward	Facility managers have incentivised performance indicators linked to the greenhouse gas emissions targets for assets and greenhouse gas emissions project level reporting.
Environment/Sustainability managers	Monetary reward	Environment/Sustainability managers have incentivised performance indicators linked to the greenhouse gas emissions targets and climate change mitigation and adaptation actions.
All employees	Monetary reward	All employees have incentivised performance indicators linked to sustainability performance as part of our balanced scorecard performance assessment approach. These differ in accordance with the roles and responsibilities of the individual employee (e.g. consideration of climate change risks/opportunities, achievement of emissions reduction targets, promotion of energy efficiency initiatives with suppliers/customers etc.)

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**Further Information**

For further information please refer to the Strategy and Governance section of our FY13 Sustainability Reporting online at <http://www.stockland.com.au/sustainability/2013/strategic-approach.htm#tab-31689>. This content is equally available in the attached "Strategic Approach\_Final.pdf" file with information about incentives and the Balanced Scorecard on page 8, and the Sustainability Board Committee on pages 9-10. Please also refer to our

Financial Report 2013 - remuneration report, which includes details of our balanced scorecard and remuneration on page 29. Page 15 contains details on the Sustainability Board Charter. <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9MjAzMTk2fENoaWxkSUQ9LTF8VHlwZT0z&t=1>

## Attachments

[https://www.cdp.net/sites/2014/70/17770/Investor CDP 2014/Shared Documents/Attachments/InvestorCDP2014/CC1.Governance/1. Strategic Approach\\_Final.pdf](https://www.cdp.net/sites/2014/70/17770/Investor%20CDP%202014/Shared%20Documents/Attachments/InvestorCDP2014/CC1.Governance/1.Strategic%20Approach_Final.pdf)

## Page: CC2. Strategy

### CC2.1

**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

### CC2.1a

**Please provide further details on your risk management procedures with regard to climate change risks and opportunities**

Frequency of monitoring	To whom are results reported	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Individual/Sub-set of the Board or committee appointed by the Board	Stockland's assets and developments across the entire portfolio (New South Wales, ACT, Victoria, South Australia, Western Australia and Queensland)	> 6 years	FIRST LINE OF DEFENCE: All functions (Business Units & Group, including the Executive Committee) are responsible for the identification, assessment, and treatment of risks. This includes developing, implementing, and following appropriate processes, procedures, checklists & other controls, and monitoring those controls to ensure they are, and remain, effective. ExCo & the Board are provided with monthly updates on progress, challenges, risks and opportunities relating to their business-specific sustainability policy & initiatives. Policies outline performance

Frequency of monitoring	To whom are results reported	Geographical areas considered	How far into the future are risks considered?	Comment
				standards and requirements relating to energy efficiency and climate change adaptation to be considered in the design, construction and operation of projects and assets. Sustainability team provides ExCo and the Board with monthly updates on progress towards emission reduction targets, adaptation and resilience initiatives, and any identified climate change related risks and opportunities identified at asset and/or group level.

**CC2.1b**

**Please describe how your risk and opportunity identification processes are applied at both company and asset level**

**COMPANY LEVEL**

Climate change risks and opportunities (R&O) are considered as part of our risk management approach. At Stockland, risk management is the responsibility of every employee and is assured according to the "Three Lines of Defence".

- First Line of Defence: See CC2.1a

- Second Line of Defence: Stockland's Group Risk functions (Strategy, Operational Risk & Group Compliance) are responsible for the design & implementation of the risk management framework

See "Further Information" for more detail on these functions and how climate change is considered in strategic & operational risk review processes.

- Third Line of Defence: Independent oversight and checking from Board & Board Committees, Internal Audit function and External Audit & Assurance providers.

See "Further Information" for more detail on how climate change R&O are considered within the Audit & Assurance processes.

Risk Review & Investment Review procedures also form a key component of our R&O identification process. See "Further Information" for more detail on how climate change is considered within these procedures.

**ASSET LEVEL**

At asset level, R&O are identified at each stage of the project lifecycle as part of our D-Life process, with requirements set at each of the approval gateways.

For example, Retirement Living (RL) projects must review sea level rise, flooding risk, bushfire & extreme weather risk at acquisition/planning stage; high risk residential projects must conduct a climate adaptation assessment using the "Climate Vulnerability and Resilience Assessment Tool"; Residential & RL projects assess stakeholder & environmental R&O at least 3 times a year through the Project Performance Review (PPR) process; and Commercial Property projects & operations must explore opportunities for innovation (e.g. low-carbon options) at every stage of development.

See "Further Information" for more detail on Climate Change R&O Assessments conducted at asset level.

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**CC2.1c****How do you prioritize the risks and opportunities identified?**

i) To effectively prioritize our climate change risks and opportunities (R&O) we employ evidence-based decision making tools and certification. The process differs across assets and business units based on systems in place to measure and evaluate energy & climate change data and performance.

CCAP Precinct (Resi and RL): a statistical model that compares our base project masterplans against regional benchmarks. The tool is used to establish performance based targets at the planning and design phase to reduce energy and greenhouse gas emissions and inform project transport needs. The CCAP tool is then used to model different design and technology options that can be introduced to improve project performance. The tool provides a marginal cost curve to enable a simple assessment of cost and payback of each design or technology element.

Green Star: (CP, RL and pilot Resi): Minimum standards have been developed to ensure energy efficiency is designed into all new build projects and major refurbishments in our CP and RL portfolios. The Green Star accreditation process (which Stockland has formalised into Green Plans for development and construction) requires assessment and prioritization of climate change R&O with energy modelling completed to assess highest abatement at lowest cost. Targets are set and performance monitored to measure the design outcomes and efficiency gains made from building tuning & systems optimisation.

ii) At asset level, R&O are prioritised based on:  
- their overall potential impact on asset performance,  
- the cost involved in managing/mitigating/utilising them,

Across the portfolio, R&O are prioritised based on:  
- location of the asset/project  
- design attributes of the asset which affect climate risk resilience  
- regional predictions for weather changes over two time horizons (2030/2070)  
- overall impacts on company emissions performance  
- overall risk to portfolio value and revenue (maintenance costs, operational shutdowns)

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**CC2.1d**

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future



Main reason for not having a process	Do you plan to introduce a process?	Comment
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## CC2.2

### Is climate change integrated into your business strategy?

Yes

## CC2.2a

### Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

#### i. How strategy is influenced:

Strategic Risk provides advice to management & the Board Risk Committee on strategic risks. This includes leading Group-wide strategic risk reviews & conducting independent risk assessments on capital investments.

Climate change risks & opportunities (R&O) (particularly those associated with regulatory changes, physical impacts on operating environments, & changing consumer behaviours), and their potential impact on corporate strategy are considered within the review process & throughout the investment decision.

The strategic review process is based on extensive engagement & interaction across the business, and the detailed review of key internal & external documentation including: asset plans, business unit/departmental strategies & analyses, quarterly risk reports provided to Board Risk Committee, industry research publications, market analysis etc.

Our EGM Strategy and Stakeholder relations is responsible for ensuring that the annual Board Strategy Review (BSR) addresses the key R&O for the business and that we're tracking correctly against our risk adjusted framework. While BSR is based on a financial framework, external social and/or environmental drivers (particularly relating to climate change & the resilience of our portfolio) are considered in the respect of associated financial costs & considerations over the short, medium & long term.

The BSR process is designed to highlight the financial, social and environmental R&O for the business to ensure the Board is aware of the strategic context and decisions are made in alignment with the strategy, and to ensure the business is responding accordingly.

#### ii. What CC aspects have influenced strategy:

Climate change has been recognised as a strategic sustainability priority for the business.

Our recent BSR sought to define a strategy that would optimise returns within an acceptable level of risk, and deliver innovative products to meet customer needs & expectations. Risks relating to a changing climate, and the opportunity to create assets & developments which address both the social & environmental implications of these changes, were considered within that context.

The newly defined strategic approach included the active divestment of those assets which do not meet the risk-adjusted hurdle rates of return, and a renewed focus on the company's core competencies in property/asset management & development (including sustainability management) to drive value creation.

The key climate change R&O areas identified through our strategic review process were:

- Physical risks: ensuring our assets are resilient to the pressures of changing climate & extreme weather conditions now and in the future (e.g. climate vulnerability & resilience assessments)
- Supply chain risks: ensuring climate change R&O are considered and factored into the activities of our key suppliers and contractors;
- Financial risks: increased costs associated with mounting regulation, more frequent asset repair/maintenance etc.
- Cost reductions: focus on operational efficiency (linked to emission reduction targets), as well as the upfront design and build of efficient and resilient assets (e.g. Green Star standards)
- Energy abatement & alternate energy: capitalising on voluntary emissions trading opportunities through abatement opportunities and also on alternative energy sources to transition from operational cost to revenue generation (e.g. solar installations)
- Social benefit: the focus on energy efficiency and shift to low carbon future makes our goods/services more affordable for our customers, which not only provides competitive advantage, but also increases customer satisfaction thus driving retention and referrals

iii. Short-term strategy influence:

The short term strategy components influenced by climate change include:

- Operational efficiency: the approval and adoption of energy efficiency targets across all business units and assets, and potential increased spend on environmental major works
- Customer satisfaction: enhance affordability through improved energy efficiency in the design and operation of assets and guarantee business continuity for our tenants through the provision of resilient assets.
- Sustainable development: Make our communities and assets stronger, healthier, more connected and more resilient through environmental and social initiatives, including Green Star activities and the approval of alternate energy installations across our assets.

iv. Long term strategy influence

Long term strategy components influenced by climate change include:

- Monitoring & changing our portfolio to meet changing social & environmental realities through the strategic acquisition, divestment & development of resilient assets.
- Adoption of new business types, models, & geographies that are more resilient to climate change & associated risks
- Delivering a better product for our customers which meets their needs now and for the future.
- Ensuring we are minimising our liability – we limit our exposure to legal risk through the delivery of physical product that is in alignment with building code standards or better.

v. Strategic advantage gained:

Maintaining a focus on increased energy efficiency across our portfolio of assets places us at a competitive advantage as it enhances affordability for our customers, reinforces our brand & reputation as an environmentally responsible property manager & developer, reduces our cost base enabling funds to be more productively invested in value creation initiatives for our customers & communities, and makes us a more attractive to investors as it enables us to clearly demonstrate the value & return on investment of our energy efficiency initiatives.

Our focus on climate resilience & adaptation places us at a competitive advantage as it ensures & demonstrates our preparedness for a changing climate. By implementing initiatives that improve the resilience of our assets we not only reduce the risk of business disruption to our customers and residents (property manager & developer of choice) we also mitigate potential future costs associated with maintenance, upgrade and emergency response initiatives across our

assets, ensuring our ability to deliver greater returns in the medium to long-term.

vi. Decisions in reporting period affected by climate change:

- Climate vulnerability and resilience assessments conducted across all business units; action plans developed and actions implemented
- Green Star pilot opportunities in Residential & Retirement Living
  - Tailored the Green Star assessment methodology from Commercial Property to Retirement Living and successfully implemented this pilot with Green Building Council of Australia.
  - Piloted the Green Star Communities tool, the adaptation element of which was the direct result of prior work done by Stockland. Credits for climate resilience are now being incorporated into other Green Star tools.

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### CC2.2b

Please explain why climate change is not integrated into your business strategy

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### CC2.3

**Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)**

Direct engagement with policy makers  
Trade associations  
Funding research organizations

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### CC2.3a

**On what issues have you been engaging directly with policy makers?**

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Energy	Support	Stockland has discussed the involvement of the	The property sector could contribute to Australia's emissions reduction by

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
efficiency		property sector in the Federal Government's Emissions Reduction Fund to increase energy efficiency and innovation in the sector and contribute to a reduction in Australia's greenhouse gas emissions.	using already established and functioning energy efficiency rating systems to model potential abatement opportunities in future retrofits and redevelopments and commit to collaborative reduction targets through the Emissions Reduction Fund.
Adaptation resiliency	Support	Stockland has discussed opportunities to increase the resilience of the built environment with the National Climate Change Adaptation Research Facility and the Federal Government.	In collaboration with industry and the Australian Sustainable Built Environment Council a proposal has been put forward to the Federal Government for an Adaptation Policy Framework to improve the resilience of the built environment in the face of climate change. This Framework aims to: - protect the wellbeing of communities through targeted policy initiatives and better urban and building design; - ensure appropriate institutional arrangements to facilitate adaptation; - realise economic benefits from early adaptation through effective strategic planning and risk minimisation; - advance sustainability through better resource and risk management strategies; and - increase community education and awareness about climate change risks and adaptation. It outlines ten ways government can work with industry to deliver effective adaptation strategies.

### CC2.3b

Are you on the Board of any trade associations or provide funding beyond membership?

Yes

### CC2.3c

Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
Property Council of Australia	Consistent	"The property sector is intrinsically linked to efforts to adapt to the impacts of climate change. It is the places created by our built environment, and the people they house that much of our adaptation effort will be focused on". The Property Council also focuses "on eco-efficient - less in, more out - assets and effective strategic planning of our cities"	We support the Property Council's position on climate change, their focus on eco-efficiency and the need to establish an Adaptation Policy Framework. We provide case studies to provide support for their submissions. We sit on the Board of the Property Council of Australia as well as the National Sustainability Roundtable to both promote innovative climate change action and make recommendations of effective government climate change policy for the property sector.
Green Building Council of Australia	Consistent	The Green Building Council of Australia (GBCA) is supportive of raising awareness and taking action on climate change adaptation.	We support the GBCA's position on climate change and work in partnership with the GBCA to develop tools and initiatives to promote more efficient and resilient assets and communities across Australia. We sit on the Board and on the technical and advocacy committees at the GBCA to promote innovation, best practice and advocate for a more sustainable built environment through voluntary rating tools and their use to meet policy and access government incentives.

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**CC2.3d**

**Do you publically disclose a list of all the research organizations that you fund?**

Yes

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**CC2.3e**

**Do you fund any research organizations to produce or disseminate public work on climate change?**

Yes

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**CC2.3f**

**Please describe the work and how it aligns with your own strategy on climate change**

Green Cross Australia has launched the Business Adaptation Network as a place where best adaptation practice can be shared to mainstream responses and improve Australia's resilience to the impacts of climate change.

To kick-start development of the Business Adaptation Network, Green Cross Australia used an entrepreneurial shared interest model by reaching out to Governments and business adaptation leaders to offer a financial and expert contribution towards network development, supported by the adaptation research community.

With a portfolio of assets and operations in major regional areas around the country, we are becoming increasingly focussed on the vulnerability and resilience of buildings in a changing future climate. Our involvement in the Business Adaptation network allows us to stay in touch with the latest thinking around adaptation and to share our experiences with like-minded organisations

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**CC2.3g**

Please provide details of the other engagement activities that you undertake

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**CC2.3h**

**What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

Stockland's climate change strategy is supported by both a Group Climate Change Position Statement, our Environment Policy, and business unit sustainability policies. Stockland's Stakeholder Relations team leads and supports engagement with Government and Industry to ensure that good practice is followed and that our direct and indirect activities are consistent with our policies and strategy.

We sit on the Board and on the technical and advocacy committees at the GBCA to promote innovation, best practice and advocate for a more sustainable built environment through voluntary rating tools and their use to meet policy and access government incentives. We sit on the Board of the Property Council of Australia as well as the National Sustainability Roundtable to both promote innovative climate change action and make recommendations of effective government climate change policy for the property sector.

Our engagement is governed by a Board-endorsed government and stakeholder engagement policy that applies to all our people and covers donations, the role of consultants, access to our properties, gifts and personal political participation. The policy is updated annually and communicated to our people through our Executive Committee. It is also published on our website.

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**CC2.3i**

Please explain why you do not engage with policy makers

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**Further Information**

Please refer to attached "CDP - Risk Management" document, which describes in greater depth how our risk and opportunity identification processes are applied at both company and asset level. For more detail on how climate change is integrated into our business strategy please refer to the "CDP Strategy" document attached.

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**Attachments**

[https://www.cdp.net/sites/2014/70/17770/Investor CDP 2014/Shared Documents/Attachments/InvestorCDP2014/CC2.Strategy/CDP - Risk Management.docx](https://www.cdp.net/sites/2014/70/17770/Investor%20CDP%202014/Shared%20Documents/Attachments/InvestorCDP2014/CC2.Strategy/CDP%20-%20Risk%20Management.docx)  
[https://www.cdp.net/sites/2014/70/17770/Investor CDP 2014/Shared Documents/Attachments/InvestorCDP2014/CC2.Strategy/CDP Strategy.docx](https://www.cdp.net/sites/2014/70/17770/Investor%20CDP%202014/Shared%20Documents/Attachments/InvestorCDP2014/CC2.Strategy/CDP%20Strategy.docx)

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**Page: CC3. Targets and Initiatives**

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**CC3.1**

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

Absolute and intensity targets

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**CC3.1a**

**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
Abs1	Scope 1+2	27%	70%	2006	24679	2030	As part of the Better Buildings Partnership with City of Sydney, we are committed to reducing the emissions of our Sydney CBD office assets by 70% by 2030 using a 2006 base year. Emissions across our Sydney CBD office assets totalled 24,679 tonnes CO2e in 2006. This equates to an absolute reduction of 17,275 tCO2e by 2030.
Abs1	Scope 1+2	22%	66%	2009	64246	2014	We are targeting an average 4.5 Star NABERS rating across our office portfolio by FY14, based on a FY09 base year average of 3.4 stars. This results in absolute reductions across our entire portfolio. While we track these absolute emissions reductions annually, we continue to frame our target in terms of improvement to NABERS (rather than % emissions reduction) as it is easier to normalise across our diverse office assets. The % reduction target provided here is based on a .9 improvement in rating performance to date equating to a 54% reduction - an additional .2 improvement has been calculated at the same rate.

### CC3.1b

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
Int1	Scope 1+2	66%	20%	Other: kgCO2-e per square meter	2009	87	2014	We are committed to reducing our Commercial Property (retail and office) portfolio's emissions intensity by 20 per cent by FY14, based on FY09 figures. We are at 23% improvement in FY13 and are on track to exceed 20% in FY14.



CC3.1c

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	Comment
Int1	Decrease	20	Decrease	20	On a like-for-like basis this would represent a 20% absolute reduction. The Scope 3 decrease represents the reduction in transmission losses as a result of the absolute reduction in electricity use.

CC3.1d

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
Abs1	33%	96%	We are on track to achieve this target well ahead of schedule with a reduction of 67% in FY13.
Abs2	80%	96%	Our office portfolio achieved a 4.3 star average NABERS rating in FY13, which equates to a 54% reduction on FY09 levels. We continue to aspire towards a target of 4.5 Star NABERS average for office in FY14.
Int1	80%	100%	We are at 23% improvement in FY13 and are on track to exceed 20% in FY14.

CC3.1e

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

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**CC3.2**

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

Yes

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**CC3.2a**

**Please provide details of how the use of your goods and/or services directly enable GHG emissions to be avoided by a third party**

We sell communities, retirement living homes and commercial property assets that can all help reduce emissions through increased energy efficiency. By building efficient products and centres we are able to reduce the overall energy bills and emissions for our tenants and customers.

We achieve this through:

Improving NABERS ratings; Green Star ratings across our portfolio of assets with a focus on emissions improvements; solar incentives; sub metering; LED lighting; passive design in master plan communities; energy efficient HVAC in Commercial and Retirement Living (RL); increasing operational efficiencies through building management; requiring all our RL homes to achieve 5% better thermal comfort performance than regulation as rated by NatHERS (National Home Energy Rating Scheme).

Case Study: Avoiding emissions at Selandra Rise Retirement Village

i) How Scope 1 and/or 2 emissions were avoided

Emissions were avoided at our Selandra Rise Retirement Village by developing a 4 Star Green Star rated retirement village using the "Retirement Living custom tool" which represents 'Australian Excellence' in environmentally sustainable design. Selandra Rise Retirement Village is the first retirement living village to achieve a Green Star retirement village rating in Australia.

Initiatives contributing to avoidance of third party emissions included efficient lighting, shut-down switches, natural gas installations, natural light and cross ventilation, above regulation thermal performance of all homes (i.e. average > 7 star), efficient HVAC systems, performance glazing, education, highly efficient appliances, provision of clothes lines.

ii) An estimate of the amount of the emissions that were avoided over the time

Residents living in our 7 star energy rated villas and apartments at Selandra Rise will generate approximately 608 tCO<sub>2</sub>-e, compared to benchmark residential

figures of 1,323 tCO<sub>2</sub>-e which equates to approximately 715 tCO<sub>2</sub>-e (or 54%) of avoided emissions per year. This also means our residents save an average of over \$700 a year on daily living expenses.

iii) Methodology, assumptions, emission factors and GWS used for the estimations

The methodology for these calculations is based on the application of the Green Star Modelling Tool, which determines a standard benchmark for residential buildings and awards points for performance beyond that standard. The final Green Star rating for the design and build of residential buildings enables direct comparison of building performance to the benchmark standard.

Under the Green Star tool the Selandra Rise Retirement Village residences achieved 21 out of the 25 points available in the Green Star 'Energy' category, with 17 points awarded for greenhouse gas emissions reduction strategies, and the maximum of two points awarded for peak energy demand reduction.

iv) Whether considering originating CERs or ERUs within the CDM or JI (UNFCCC) (or other credit scheme?)

There currently isn't a program that will recognise energy savings for this project.

(NB - while Selandra Rise is the first "whole of village" rating for retirement living, Affinity Village in WA (featured in our FY12 CDP Response) was the first retirement living development to have any type of Green Star rating with its clubhouse rated under the community buildings pilot tool in FY13, equally resulting in avoided emissions and reduced costs for our residents.)

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### CC3.3

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

Yes

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### CC3.3a

**Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO<sub>2</sub>e savings**

Stage of development	Number of projects	Total estimated annual CO <sub>2</sub> e savings in metric tonnes CO <sub>2</sub> e (only for rows marked *)
Under investigation	90	

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
To be implemented*	13	248.4
Implementation commenced*	10	916.9
Implemented*	36	2353.3
Not to be implemented	51	

### CC3.3b

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

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative, years	Comment
Energy efficiency: Building services	Lighting upgrade	723.7	150297	1440500	4-10 years	5	Assessed the use of LED lighting at 23 Stockland centres, with installation completed or underway on six assets and LEDs to be specified on new developments. This was a voluntary initiative implemented to reduce Scope 2 emissions across our retail portfolio and ensure progress towards our FY14 reduction targets.
Energy efficiency: Building services	Smart energy monitoring systems	1665.2	313571	1425200	4-10 years	10	Extended our commitment to sub metering by delivering two new sites and expanding our partnership with our sub metering provider to trial a new platform for three additional sites. This was a voluntary initiative implemented to reduce Scope 2 emissions across our

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative, years	Comment
							retail portfolio and ensure progress towards our FY14 reduction targets.
Energy efficiency: Building services	HVAC upgrades	109.6	23396	518200	21-25 years	20	We have undertaken major mechanical and HVAC system upgrades across our retail portfolio. This was a voluntary initiative implemented to reduce Scope 2 emissions across our retail portfolio and ensure progress towards our FY14 reduction targets.
Energy efficiency: Building services	Solar	125.6	26460	359600	11-15 years	25	Delivered two alternative energy projects within our retail portfolio with the installation of solar at Stockland Green Hills and Jimboomba. This was a voluntary initiative implemented to reduce Scope 2 emissions across our retail portfolio and ensure progress towards our FY14 reduction targets.

### CC3.3c

**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. MACC are also used within our development masterplanning process to identify key infrastructure and programs to reduce emissions.

Method	Comment
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	Development standards/ratings: Green Star as minimum development standard: Embedding minimum standards for energy efficiency is driving investment in emissions reduction activities across our organisation. Our Commercial Property business has minimum Green Star rating performance standards, and in FY13 our Retirement Living and Residential businesses have also piloted and implemented green star standards for design and build of public buildings and communities respectively. There are minimum energy efficiency requirements for all Resi and RL 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. Our Retirement Living business committed to delivering all new villages with a 5 per cent improvement on building code energy efficiency performance requirements.
Other	Operational standards/ratings: 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 systems, lighting controls and variable speed drives.
Dedicated budget for energy efficiency	CAPEX budget. If an energy efficiency project meets our investment hurdle rate and can deliver a return on investment then it is given approval to proceed to implementation. This can be achieved at an individual site level or at a portfolio level.
Dedicated budget for low carbon product R&D	New technology is trialled and if successful then it's rolled out across the portfolio e.g. LED lighting
Dedicated budget for other emissions reduction activities	Budget is set aside for building tuning and maintenance activities that result in good GHG performance
Employee engagement	Greenovation initiative to promote staff sustainability awareness, seek innovative ideas from staff and drive energy efficiency across corporate and site offices.
Internal incentives/recognition programs	KPIs for emissions reduction targets for key development and operations staff. Acknowledging best practice and rewarding through internal promotion and recognition (e.g. intranet stories and values awards)

CC3.3d

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

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**Further Information****Page: CC4. Communication**

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**CC4.1**

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

Publication	Page/Section reference	Attach the document
In mainstream financial reports (complete)	Financial Report 2013 pp. 29	<a href="https://www.cdp.net/sites/2014/70/17770/Investor_CDP_2014/Shared_Documents/Attachments/CC4.1/Stockland_Financial_Report_2013.pdf">https://www.cdp.net/sites/2014/70/17770/Investor_CDP_2014/Shared Documents/Attachments/CC4.1/Stockland_Financial_Report_2013.pdf</a>
In voluntary communications (complete)	Annual Review 2013 pp. 7,31, 46, 48-49	<a href="https://www.cdp.net/sites/2014/70/17770/Investor_CDP_2014/Shared_Documents/Attachments/CC4.1/Stockland_Annual_Review_2013.pdf">https://www.cdp.net/sites/2014/70/17770/Investor_CDP_2014/Shared Documents/Attachments/CC4.1/Stockland_Annual_Review_2013.pdf</a>
In voluntary communications (complete)	Sustainability Report 2013 (Energy and Climate Change Section)	<a href="https://www.cdp.net/sites/2014/70/17770/Investor_CDP_2014/Shared_Documents/Attachments/CC4.1/6_Energy_and_Climate_Change_Final.pdf">https://www.cdp.net/sites/2014/70/17770/Investor_CDP_2014/Shared Documents/Attachments/CC4.1/6_Energy_and_Climate_Change_Final.pdf</a>

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**Further Information****Module: Risks and Opportunities****Page: CC5. Climate Change Risks**

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**CC5.1**

Have you identified any climate change risks that have the 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

CC5.1a

Please describe your risks driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
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. This reduces the amount of developable land, and creates the risk of either the project not being approved or the project approval being delayed due to inability to demonstrate level of due diligence/management required	Increased capital cost	1 to 3 years	Direct	Likely	Low-medium	The figure could be significant but varies based on project type and size. It would invariably increase if climate change risks were not considered in acquisition and/or planning stage.	Climate Change Assessments are an integral part of our planning and acquisition process. Our ability to meet the required conditions for approvals is strong given demonstrated climate change adaptation management and performance.	Climate Change Assessments on new developments cost approximately \$8000 for a full scale assessment. This cost is factored into development budgets, and is a minor investment given the financial risk it enables us to offset.



Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Product efficiency regulations and standards	Another potential risk relates to emerging regulation and the additional costs and resources required to manage compliance. There is no regulation at present that expressly addresses the full range of climate risks in terms of built form. The current National Construction Code (NCC) requires buildings to be designed and constructed to withstand climate related hazards such as cyclones and extreme winds, intense rain, bushfire, snow and flood, as appropriate to their location. However, the NCC does not cover hail, storm tide or have specific requirements relating to heat stress, aside from prescribed requirements for energy efficiency which moderate the impacts of extreme heat within buildings. The Australian Building Codes Board (ABCB)	Increased operational cost	1 to 3 years	Direct	About as likely as not	Low-medium	New costs and requirements for additional resources in the built environment to meet new regulation and requirements under a revised NCC.	We have worked on identifying potential vulnerabilities in our portfolio through the climate resilience assessments and taking early action aims to anticipate emerging regulation and build awareness into the organisation so as to prepare for potential future regulatory requirements. We are working closely with industry bodies to develop our adaptation and resilience work into standards for industry-wide performance in	The cost of management is associated with undertaking and developing the climate vulnerability and resilience assessments - a process which has now been integrated into the capabilities of key staff across our commercial property business, and is being increasingly developed in our other businesses.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	released a draft discussion paper in April 2014 which aims to engage stakeholders on the resilience of buildings to extreme weather events. The purpose of the paper is to inform stakeholders of the ABCB's preliminary views on resilience to extreme weather events, to seek feedback and obtain responses to a number of questions to help inform the ABCB on the appropriate way forward. This may lead to greater regulation around climate resilience in construction and impose new costs and requirements for additional resources in the built environment.							this space.	
Uncertainty surrounding new regulation	The Australian government has repealed certain environmental regulation, including the price on carbon, creating a great deal of uncertainty in the	Reduced demand for goods/services	Up to 1 year	Direct	About as likely as not	Low	Costs associated with training resources and re-aligning initiatives to meet new	Maintain a close watch on, and work with industry bodies to influence where possible,	No additional cost - this is a core responsibility of our Stakeholder Relations team.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	market. It is unclear how/when the Direct Action Plan proposed by the new government will come into force, and whether or not the carbon price will be reinstated at a later stage due to international pressures.						government policy and approach to achieve national emission reduction targets.	emerging policy and regulation which may impact our operations.	

**CC5.1b**

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

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Sea level rise	Based on a risk analysis conducted in 2011 across our portfolio of assets, sea level rise presents the risk to which our portfolio has the	Reduction/disruption in production capacity	>6 years	Direct	Likely	Low-medium	Financial loss relating to loss of entire tracts of development land and loss/impact on existing assets. Value would vary depending on size and nature of the land/asset.	All projects are required to review sea level rise and flooding risk in acquisition/planning stage. High risk projects must conduct a climate adaptation assessment using the "Climate	These measures are integrated into our standard approach to project development (i.e. to meet D-Life approval gateways) so costs are

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>greatest exposure. The risk analysis investigated impact from sea level rise, wave run-up and flooding risk. While NSW coastline is predicted to have the greatest increase, the report indicates that Queensland coastal areas will also be significantly exposed to predicted rise in sea levels and floods. Sea level risk in these areas is likely to give rise to indirect impacts on communities and infrastructures surrounding Stockland assets.</p>							<p>Vulnerability and Resilience Assessment Tool” Where specific risks are identified, suitable mitigation or correctional measures must be included in asset-specific action plan with actions implemented and tracked.</p>	<p>incorporated into project budgets and requirements. In Commercial Property, the expertise to conduct climate vulnerability and resilience assessments has been developed internally and assessments are now conducted at no additional cost to the business (excluding cost of travel) as it is incorporated into the roles and responsibilities of our existing resources.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average) temperature	2011 risk analysis indicated that higher mean temperatures was another climate change effect to which our portfolio had significant exposure . More frequent warmer/hotter days will increase demand for ventilation and air conditioning, leading to higher operating costs due to increased maintenance and energy consumption. Change in mean average temperature will also impact the health and wellbeing of our residents.	Increased operational cost	1 to 3 years	Direct	Likely	Low	Increased operating and maintenance costs associated with increased demand on HVAC systems	Potential at risk projects must conduct a climate adaptation assessment using the “Climate Vulnerability and Resilience Assessment Tool” Where specific risks are identified, suitable mitigation or correctional measures must be included in asset-specific action plan with actions implemented and tracked.	These measures are integrated into our standard approach to project development (i.e. to meet D-Life approval gateways) so costs are incorporated into project budgets and requirements. Health and Wellbeing initiatives are also a requirement in all asset and development plans with budget assigned accordingly. Current initiatives across our retail portfolio include detailed assessment of optimal operating conditions for

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
									our HVAC units (i.e. using minimal energy to maintain optimum temperature)
Change in temperature extremes	Higher maximum daily temperatures were identified in our 2011 risk analysis as another climate change effect to which our portfolio had significant exposure. Heat waves in Australia are virtually certain to increase in frequency and intensity. This will seriously impact our residents, particularly our more vulnerable Retirement	Wider social disadvantages	1 to 3 years	Indirect (Client)	Likely	Medium	The increased demand for air conditioning will lead to increased cost of living for retirement living residents. If measures are not taken to ensure low cost alternatives for cooling and managing extreme temperatures, this will not only negatively impact our residents, it will also impact our ability to attract and retain residents in our villages.	Potential at risk projects must conduct a climate adaptation assessment using the "Climate Vulnerability and Resilience Assessment Tool" Where specific risks are identified, suitable mitigation or correctional measures must be included in asset-specific action plan with actions implemented and tracked. We also ensure energy efficiency and natural ventilation of Retirement Living villages using the Green Star standards for design and construction of retirement living	These measures are integrated into our standard approach to project development (i.e. to meet D-Life approval gateways) so costs are incorporated into project budgets and requirements. Health and Wellbeing initiatives are also a requirement in all asset and development plans with budget assigned accordingly.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Living residents, and increase the demand for air conditioning and overall energy consumption. Heat waves can also lead to bushfires destroying large numbers of homes and causing fatalities.							assets.	
Tropical cyclones (hurricanes and typhoons)	The most significant risk identified in our 2011 climate risk assessment was an increase in frequency and severity of storms. Intense tropical cyclone activity increases the incidence of flood and high winds.	Reduction/disruption in production capacity	1 to 3 years	Direct	Likely	Medium	Costs associated with project delays and/or significant structural damage to development sites, construction activities or existing assets.	Ensuring resilience of assets through resilience assessment - building retuning etc. Systematic assessment of suppliers/contractors to ensure climate change related effects considered in project planning and delivery.	Costs associated with asset level assessments building retuning/repair . No additional cost involved in screening suppliers as integrated into current contractor management system.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>Increased frequency and impact of extreme weather may also 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 structural damage of our assets and the disruption of our operations during and immediately following an event. It also presents a significant indirect risk via the impact on development activities</p>								



Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	managed by our supply chain in high risk areas.								
Change in precipitation extremes and droughts	<p>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 occurrence 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</p>	Reduction/disruption in production capacity	1 to 3 years	Direct	Likely	Low	<p>Drought would affect us directly (increased cost of water to develop/service our assets) and indirectly (visual amenity issues linked to drought may affect the customer appeal of our assets, increased cost of water could place additional stress on customers/tenants) as would flood, due to structural damage to our assets and business continuity impacts for our tenants.</p>	<p>Water sensitive urban design is considered in design and build of our assets, with water consumption addressed across our Commercial Property portfolio to ensure effective management and minimal use of the resource. All projects are required to review sea level rise and flooding risk in acquisition/planning stage. High risk projects must conduct a climate adaptation assessment using the "Climate Vulnerability and Resilience Assessment Tool" Where specific risks are identified, suitable mitigation or correctional</p>	<p>Costs are integrated into our design and development budgets.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	becomes a more serious issue for Australia. Large scale flooding will impact the operation of our business and lead to potential disruption of our services.							measures must be included in asset-specific action plan with actions implemented and tracked.	
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	Increased operational cost	1 to 3 years	Direct	Likely	Low-medium	Increased cost of resources across developments and operations	Constantly improving our development and operational activities to minimise natural resource consumption.	Costs associated with efficiency improvement initiatives across our assets.

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	utility costs) through exploring alternative solutions such as decentralised low carbon energy and alternate water supply.								

CC5.1c

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

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated Financial Implications	Management method	Cost of management
Reputation	Reputational risk grows, as awareness of the impacts of climate change grows. Stakeholders are increasingly looking to	Reduced stock price (market valuation)	1 to 3 years	Direct	Likely	Low	Impacts access to capital as no longer considered investment of choice, and also financial implications of missed opportunity as not considered developer/operator/partner of choice	Stockland has an active Stakeholder Relations team which ensures climate change issues remain on the radar and that the	Part of the mandate of the Stakeholder Relations team therefore no additional/specific cost associated with management.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated Financial Implications	Management method	Cost of management
	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.							company responds to any concerns quickly and effectively to minimise potential reputational damage.	
Changing consumer behaviour	In some facets of Stockland's business, customers are increasingly engaged on sustainability, with growing	Reduced demand for goods/services		Direct	Likely	Low	Financial implications associated with inability to attract tenants/customers to our assets. This risk will increase over time as new buildings are developed with modern and efficient fixtures,	Ensure that all our assets have a minimal level of sustainability performance which ensures maximum	Costs involved in design and development of assets in accordance with Green Star, and also costs involved in upgrading and refurbishing

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated Financial Implications	Management method	Cost of management
	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.							benefit to our customers in terms of reduced operating cost/living costs and improved environmental performance. Continuous improvements and upgrades across our assets to ensure they maintain high level performance.	existing assets to ensure their enhanced sustainability performance.
Other drivers	Greater push to identify, measure and monitor Scope 3 emissions which will require increased resources to be invested in the initial set up of data collection systems and in the ongoing	Increased operational cost	1 to 3 years	Direct	Very likely	Low-medium	Increase CapEx to set up data collection and management systems and OpEx as additional resources required to collect, collate and manage data.	Closer focus on emissions performance of our suppliers and customers. Ensuring systems are in place to capture information in the most effective and efficient way possible to minimise strain on	Minimal cost to manage as management methods can be easily integrated into existing approaches to project management and customer engagement.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated Financial Implications	Management method	Cost of management
	measurement and management of emissions data from across the company's value chain.							resources.	

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CC5.1d

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

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CC5.1e

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

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CC5.1f

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

**Further Information**

**Page: CC6. Climate Change Opportunities**

**CC6.1**

**Have you identified any climate change opportunities 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

**CC6.1a**

**Please describe your opportunities that are driven by changes in regulation**

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Product labelling regulations and standards	Commercial Building Disclosure: The introduction of mandatory disclosure of commercial building energy	Other: Competitive advantage	1 to 3 years	Direct	Virtually certain	Low	By being prepared and pre-empting more stringent reporting regulation, Stockland will be ahead of its peers in terms of meeting the	Maintaining NABERS Energy and Water ratings across its portfolio of office assets, and targeting an	All costs are integrated into current operational costs, with maintenance of NABERS ratings costing an average of \$3,500 to maintain

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	(and potentially soon also water) efficiency. Stockland has obtained NABERS Energy and Water ratings for a majority of its office assets so is well placed to respond to this regulation						regulatory requirements should they be enforced.	improvement in portfolio-wide average of 4.5.	annually (excluding costs associated with asset upgrades to enhance asset rating performance)
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.	Reduced operational costs	1 to 3 years	Direct	Likely	Low	The cost savings generated across the business as a result of energy/operational efficiency opportunities identified.	Reports prepared annually with opportunities assessed and prioritized internally to determine those which will be implemented.	Resources dedicated to identifying opportunities, collecting/collating supporting data and preparing annual reports.
General	Planning	Wider	1 to 3	Direct	Likely	Low	All the financial	Projects are	Managing the



Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
environmental regulations, including 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.	social benefits	years				benefits associated with streamlined approval processes, being partner of choice, and performance improvements and cost efficiencies achieved through collaboration and opportunity identification across the value chain.	required to conduct a climate adaptation assessment using the "Climate Vulnerability and Resilience Assessment Tool". This tool has since been drawn on to inform standard setting with regard to Green star resilience ratings, and informs engagement with government with regard to policy and regulation.	approval process and relationships with all levels of government is integrated into roles and responsibilities of development and regional managers across assets and also key government relations and environmental management personnel at corporate level. There is no additional cost of management.
Other regulatory drivers	Streamlining environmental regulation - enquiry to reduce "green	Reduced operational costs	1 to 3 years	Direct	More likely than not	Low-medium	Financial benefits generated when resources (no longer required to undertake	Ensure the company maintains leading practice	No additional cost.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Tape". Property Council of Australia prepared a submission to government enquiry supporting: the fast-tracked implementation of EPBC bilaterals, the repeal of the Energy Efficiency Opportunities, the refinement of NGERs and the refinement or repeal of CBD.						statutory reporting) are able to focus on targeted performance improvement initiatives.	performance and remains ahead of regulatory requirements so that any changes present an opportunity rather than a risk.	
Other regulatory drivers	Emissions Reduction Fund will make funding available for emissions reduction projects and enable the expansion of certain types of abatement projects. The ERF has 3	Increase in capital availability	1 to 3 years	Direct	More likely than not	Low-medium	Will minimise the direct investment impost on the business for implementing large emission reduction initiatives.	Maintain visibility of developments with regard to the ERF and Direct Action and identify opportunities to draw on ERF funding if/as they arise.	Costs associated with resourcing to qualify and manage any emissions reduction initiatives through the ERF.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	elements: crediting, purchasing, and safeguarding. Crediting presents an opportunity for Stockland to finance future emissions reduction initiatives.								
Cap and trade schemes	Energy Savings Scheme has enabled Stockland to accrue credits annually, creating a potential revenue generator for the company.	Other: Revenue generation	1 to 3 years	Direct	Very likely	Low-medium	In FY13 Stockland was able to sell its 2010 and 2011 Energy Savings Certificates (5665 in total) for \$29 each, equating to a revenue generation of \$180,713.50 (inc GST)	As an Accredited Certificate Provider under the ESS, we must ensure we manage all our data/reporting in accordance with the requirements set by the Scheme. As such, the requirements are integrated into our management system and responsibility is assigned to	Minimal cost, managed as part of business as usual activities. Costs associated with the upgrade of assets to generate credits, however these would be undertaken in any case to meet internal energy targets.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								a member of the sustainability team to monitor and maintain the systems and associated processes.	

**CC6.1b**

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in mean (average) temperature	Higher mean temperatures in our areas of operation will drive greater traffic to our retail centres as people seek cool, public areas in which to spend their time.	Increased demand for existing products/services	1 to 3 years	Indirect (Client)	Likely	Low	Increased revenues to our retail tenants.	Ensuring that our retail centres remain attractive and enjoyable areas in which the community choose to spend time, and that they are able to operate effectively at high capacity (car parks, lifts etc.).	Part of our operational management processes.
Induced changes in	As natural resources	Increased demand for	1 to 3 years	Direct	Likely	Low-medium	Positive financial	Continuous improvement	Costs associated with

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
natural resources	become more scarce and more costly, those companies with more efficient operations will best placed in the market. As such, having highly efficient assets will increase our competitive advantage and respond to market demand.	existing products/services					implications from increased market demand and cost savings due to ongoing efficiency initiatives.	across our assets to ensure that efficiency is constantly enhanced at every opportunity. In addition to lighting and physical upgrades, this also includes assessing the optimal load at which our AC plant/equipment operates to ensure minimal energy use, assessing the frequency and quantity of our waste disposal, and monitoring water use across our assets.	individual efficiency improvement initiatives, however overall management cost minimal as integrated into the roles and responsibility of our operational staff.
Change in temperature extremes	Market demand for more efficient design as potential tenants seek highly efficient (lower energy cost) premises.	Increased demand for existing products/services	1 to 3 years	Direct	Likely	Low-medium	Positive financial implications of maintaining minimal vacancy rates across our portfolio by having highly efficient and therefore attractive assets.	Ensure that our assets are continuously assessed and upgraded to ensure energy efficiency is optimised and in line with best practice.	Costs associated with energy efficiency initiatives, building returning, upgrades etc. These are factored into annual asset plans and if they meet required ROI

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
									criteria they are integrated into the operational budget.
Other physical climate opportunities	Our retail centres provide a place of refuge in extreme weather events such as cyclones. We are able to provide a critical service to our communities and ensuring their health and safety is critical to our success as a business and a corporate citizen.	Wider social benefits	Up to 1 year	Direct	Likely	Low-medium	Positive financial implications associated with brand value and product /service quality.	Ensuring that our retail centres are designed, constructed and continually upgraded with this particular use in mind. Emergency procedures are constantly developed, tested and reviewed to ensure our ability to respond to a crisis situation.	Integrated into our standard management processes for the design, construction and operation of our retail assets.

**CC6.1c**

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

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	Ensuring the legacy of our developments so that they continue to be great places to live now and into the future. This safeguards our brand, demonstrates the value of our assets, promotes trust and customer satisfaction which drive referrals and ongoing sales and revenue.	Increased demand for existing products/services	>6 years	Direct	Likely	Low-medium	Positive financial implications associated with long term brand value and product /service quality.	Energy efficiency and climate change resilience considered, assessed and managed across all our assets as part of our development process (D-Life) and operating procedures, including Sustainability policies and toolkits for our different business units, assets and developments.	Integrated into the way we do business - cost of management associated with undertaking resilience assessments (external only - rare now as capability has been internalised) and ongoing asset upgrades.
Reputation	Supporting the communities in which we operate to become more resilient to changing climate.	Wider social benefits	>6 years	Indirect (Client)	Likely	Low-medium	Positive financial implications associated with long term brand value and product /service quality.	Energy efficiency and climate change resilience considered, assessed and managed across all our assets as part of our development process (D-Life) and operating procedures, including Sustainability policies and toolkits for our	Integrated into the way we do business - social elements factored into the capital and operational budgets of developments and assets.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								different business units, assets and developments. Social initiatives are also run across all our assets and developments to enhance those elements which contribute to resilient, liveable communities, including: Health and Wellbeing, Lifelong Learning and Prosperity, and Sense of Belonging and Vitality.	

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CC6.1d

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

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CC6.1e

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



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CC6.1f

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

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**Further Information**

**Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading**

**Page: CC7. Emissions Methodology**

---

CC7.1

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

<b>Base year</b>	<b>Scope 1 Base year emissions (metric tonnes CO2e)</b>	<b>Scope 2 Base year emissions (metric tonnes CO2e)</b>
Tue 01 Jul 2008 - Tue 30 Jun 2009	3016	120001

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**CC7.2**

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

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**CC7.2a**

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

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**CC7.3**

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

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**CC7.4**

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

Fuel/Material/Energy	Emission Factor	Unit	Reference
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**Further Information**

See attached Excel spreadsheet outlining GHG factors applied.

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**Attachments**

[https://www.cdp.net/sites/2014/70/17770/Investor CDP 2014/Shared Documents/Attachments/InvestorCDP2014/CC7.EmissionsMethodology/GHG factors.xlsx](https://www.cdp.net/sites/2014/70/17770/Investor%20CDP%202014/Shared%20Documents/Attachments/InvestorCDP2014/CC7.EmissionsMethodology/GHG%20factors.xlsx)

**Page: CC8. Emissions Data - (1 Jul 2012 - 30 Jun 2013)**

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**CC8.1**

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

Operational control

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**CC8.2**

Please provide your gross global Scope 1 emissions figures in metric tonnes CO<sub>2</sub>e

18468

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**CC8.3**

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

100936

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**CC8.4**

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

No

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**CC8.4a**

**Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure**

Source	Relevance of Scope 1 emissions from this source	Relevance of Scope 2 emissions excluded from this source	Explain why the source is excluded

---

**CC8.5**

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions 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%	Assumptions Metering/ Measurement Constraints	Assumptions: The data boundary ignores extremely small emissions that are part of property management, such as fire extinguishers. These small emissions account for less than 0.5% Measurement Constraints: Our Residential and Retirement Living businesses face a number of challenges reporting on the activities of their contractors and place reliance on third part data.	Less than or equal to 2%	Extrapolation	We apply a comprehensive estimations methodology across any data that may be missing at the time of reporting.

**CC8.6**

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

Third party verification or assurance complete

**CC8.6a**

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Reasonable assurance	<a href="https://www.cdp.net/sites/2014/70/17770/Investor%20CDP%202014/Shared%20Documents/Attachments/CC8.6a/PwC%20Assurance%20Report%20to%20Stockland%20-%20Sustainability%20Report.pdf">https://www.cdp.net/sites/2014/70/17770/Investor CDP 2014/Shared Documents/Attachments/CC8.6a/PwC Assurance Report to Stockland - Sustainability Report.pdf</a>	Page 1 of statement states Reasonable Assurance for Scope 1 and 2 data and Limited Assurance of Scope 3.	ISAE 3410	100
High assurance	<a href="https://www.cdp.net/sites/2014/70/17770/Investor%20CDP%202014/Shared%20Documents/Attachments/CC8.6a/SGP_MSR_AssuranceStatement_20130924_v11_FinalIssued.pdf">https://www.cdp.net/sites/2014/70/17770/Investor CDP 2014/Shared Documents/Attachments/CC8.6a/SGP_MSR_AssuranceStatement_20130924_v11_FinalIssued.pdf</a>	Page 1 of statement states High Assurance against AccountAbility Principles (2008) and Moderate Assurance of the accuracy and quality of the sustainability information	AA1000AS	100

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission
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**CC8.7**

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

Third party verification or assurance complete

**CC8.7a**

Please provide further details of the verification/assurance undertaken for your Scope 2 emissions, and attach the relevant statements

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of Scope 2 emissions verified (%)
Reasonable assurance	<a href="https://www.cdp.net/sites/2014/70/17770/Investor_CDP_2014/Shared_Documents/Attachments/CC8.7a/PwC_Assurance_Report_to_Stockland_-_Sustainability_Report.pdf">https://www.cdp.net/sites/2014/70/17770/Investor CDP 2014/Shared Documents/Attachments/CC8.7a/PwC Assurance Report to Stockland - Sustainability Report.pdf</a>	Page 1 of statement states Reasonable Assurance for Scope 1 and 2 data and Limited Assurance of	ISAE 3410	

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of Scope 2 emissions verified (%)
		Scope 3.		
High assurance	<a href="https://www.cdp.net/sites/2014/70/17770/Investor%20CDP%202014/Shared%20Documents/Attachments/CC8.7a/SGP_MSR_AssuranceStatement_20130924_v11_FinalIssued.pdf">https://www.cdp.net/sites/2014/70/17770/Investor CDP 2014/Shared Documents/Attachments/CC8.7a/SGP_MSR_AssuranceStatement_20130924_v11_FinalIssued.pdf</a>	Page 1 of statement states High Assurance against AccountAbility Principles (2008) and Moderate Assurance of the accuracy and quality of the sustainability information	AA1000AS	100

### CC8.8

Please identify if any data points other than emissions figures have been verified as part of the third party verification work undertaken

Additional data points verified	Comment
Year on year emissions intensity figure	Assured by Net Balance as part of AA1000AS Sustainability Assurance process.
Year on year change in emissions (Scope 1 and 2)	Assured by Net Balance as part of AA1000AS Sustainability Assurance process.



Additional data points verified	Comment
Progress against emission reduction target	Assured by Net Balance as part of AA1000AS Sustainability Assurance process.
Emissions reduction activities	Assured by Net Balance as part of AA1000AS Sustainability Assurance process.

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### CC8.9

**Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?**

No

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### CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

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### Further Information

Minor variance between emissions figures reported in our Sustainability Report and those provided in our NGRS Report are due the time of disclosure. Our Sustainability Report uses some estimated data for end of financial year not available at the time the Corporate Reporting Suite is released. Our NGRS report is released later in the year and uses a more complete emissions data set. This explains the minor variance in our emissions breakdown figures. Data in both NGRS and the Sustainability Report are assured by an external assurance provider at the time of disclosure. NGRS TOTALS FOR SCOPE 1 & 2 Scope1: 19,490 tCO2-e Scope 2: 102,030 tCO2-e

**Page: CC9. Scope 1 Emissions Breakdown - (1 Jul 2012 - 30 Jun 2013)**

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### CC9.1

**Do you have Scope 1 emissions sources in more than one country?**

No

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**CC9.1a**

Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e
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**CC9.2**

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

By business division  
By facility

---

**CC9.2a**

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

Business division	Scope 1 emissions (metric tonnes CO2e)
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Business division	Scope 1 emissions (metric tonnes CO2e)
Commercial Property	3730.5
Retirement Living	576
Residential	14105.2
Corporate	0

**CC9.2b**

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

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Corporate - Melbourne Head Office	0		
Corporate - Sydney Head Office	0		
Corporate - Brisbane Head Office	0		
Corporate - Perth Head Office	0		
Residential Developments (Aggregate) - VIC	1188		
Residential Developments (Aggregate) - NSW	820		
Residential Developments (Aggregate) - QLD	5087		
Residential Developments (Aggregate) - WA	6938		
Retirement Living Operations (Aggregate) - VIC	159		
Retirement Living Operations (Aggregate) - NSW	20		
Retirement Living Operations - Care Services (Aggregate) - NSW	1		
Retirement Living Operations (Aggregate) - QLD	24		
Retirement Living Operations (Aggregate) - WA	0		
Retirement Living Operations (Aggregate) - SA	0		
Retirement Living Operations (Aggregate) - ACT	0		

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Retirement Living Developments (Aggregate) - National	283		
Commercial Property Operations (Aggregate) - VIC	143		
Commercial Property Operations (Aggregate) - NSW	2720		
Commercial Property Operations (Aggregate) - QLD	662		
Commercial Property Operations (Aggregate) - WA	4		
Commercial Property Operations (Aggregate) - SA	0		
Commercial Property Operations (Aggregate) - ACT	108		

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**CC9.2c**

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

GHG type	Scope 1 emissions (metric tonnes CO2e)

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**CC9.2d**

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

Activity	Scope 1 emissions (metric tonnes CO2e)
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**CC9.2e**

Please break down your total gross global Scope 1 emissions by legal structure

Legal structure	Scope 1 emissions (metric tonnes CO2e)
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**Further Information**

Minor variance between emissions figures reported in our Sustainability Report and those provided in our NGRS Report are due the time of disclosure. Our Sustainability Report uses some estimated data for end of financial year not available at the time the Corporate Reporting Suite is released. Our NGRS report is released later in the year and uses a more complete emissions data set. This explains the minor variance in our emissions breakdown figures. Data in both NGRS and the Sustainability Report are assured by an external assurance provider at the time of disclosure. NGRS TOTALS FOR BUSINESS DIVISIONS: Commercial Property - 3,637 tCO2-e Retirement Living - 487 tCO2-e Residential - 14,033 tCO2-e

**Page: CC10. Scope 2 Emissions Breakdown - (1 Jul 2012 - 30 Jun 2013)**

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**CC10.1**

**Do you have Scope 2 emissions sources in more than one country?**

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**CC10.1a**

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2 metric tonnes CO2e	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted for CC8.3 (MWh)
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**CC10.2**

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

- By business division
- By facility

**CC10.2a**

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

Business division	Scope 2 emissions (metric tonnes CO2e)
Commercial Property	90419.6
Retirement Living	6313.5
Residential	2719.2
Corporate	1483.8

**CC10.2b**

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

Facility	Scope 2 emissions (metric tonnes CO2e)
Corporate - Melbourne Head Office	325
Corporate - Sydney Head Office	935
Corporate - Brisbane Head Office	165
Corporate - Perth Head Office	64
Residential Developments (Aggregate) - VIC	1188
Residential Developments (Aggregate) - NSW	504
Residential Developments (Aggregate) - QLD	850
Residential Developments (Aggregate) - WA	492
Retirement Living Operations (Aggregate) - VIC	4731
Retirement Living Operations (Aggregate) - NSW	440
Retirement Living Operations - Care Services (Aggregate) - NSW	1116
Retirement Living Operations (Aggregate) - QLD	50
Retirement Living Operations (Aggregate) - WA	2
Retirement Living Operations (Aggregate) - SA	45
Retirement Living Operations (Aggregate) - ACT	28
Retirement Living Developments (Aggregate) - National	302
Commercial Property Operations (Aggregate) - VIC	13759
Commercial Property Operations (Aggregate) - NSW	41472
Commercial Property Operations (Aggregate) - QLD	31090
Commercial Property Operations (Aggregate) - WA	3256
Commercial Property Operations (Aggregate) - SA	2
Commercial Property Operations (Aggregate) - ACT	1214

CC10.2c

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

Activity	Scope 2 emissions (metric tonnes CO2e)
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**CC10.2d**

Please break down your total gross global Scope 2 emissions by legal structure

Legal structure	Scope 2 emissions (metric tonnes CO2e)
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**Further Information**

Minor variance between emissions figures reported in our Sustainability Report and those provided in our NGRS Report are due the time of disclosure. Our Sustainability Report uses some estimated data for end of financial year not available at the time the Corporate Reporting Suite is released. Our NGRS report is released later in the year and uses a more complete emissions data set. This explains the minor variance in our emissions breakdown figures. Data in both NGRS and the Sustainability Report are assured by an external assurance provider at the time of disclosure. NGRS TOTALS FOR BUSINESS DIVISIONS: Commercial Property - 90,793 tCO2-e Retirement Living - 6,412 tCO2-e Residential - 3,034 tCO2-e Corporate - 1,489 tCO2-e

**Page: CC11. Energy**

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**CC11.1**

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

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

---

**CC11.2**

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



Energy type	MWh
Fuel	8983.2
Electricity	110367
Heat	74.7
Steam	0
Cooling	524.2

---

**CC11.3**

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

Fuels	MWh
Diesel/Gas oil	1457.1
Biodiesels	79.2
Motor gasoline	32.3
Ethane	0.6
Liquefied petroleum gas (LPG)	0.1
Natural gas	7396.3
Lubricants	5.7
Other: Fuel oil	11.9

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**CC11.4**

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the Scope 2 figure reported in CC8.3

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity, heat, steam or cooling	Comment
Non-grid connected low carbon heat, steam or cooling, generation owned by company	1840.23	A Trigenation Plant is installed in Stockland head office building in Sydney which provides low carbon energy to the base building and Stockland tenancy. The operation of the plant is controlled by a third party supplier and Stockland buys thermal and electrical energy from that supplier.

#### Further Information

#### Page: CC12. Emissions Performance

#### CC12.1

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

Decreased

#### CC12.1a

Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (percentage)	Direction of change	Comment
Emissions reduction activities	8	Decrease	8% reduction in emissions from targeted energy efficiency initiatives. 69% of our Scope 2 emission reductions were due to improved energy efficiency across our retail and office assets. This equates to 46% of our Total Scope 1 and 2 emissions reduction.
Divestment	3	Decrease	3% reduction due to divestment of our office assets. Approximately 22% of our Scope 2 emissions reduction was due to the divestment of our office assets. We reduced the assets in our office portfolio from 21 in FY12 to 16 in FY13. This equates to approximately 15% of our Total Scope 1 and 2 emissions reduction.
Acquisitions			

Reason	Emissions value (percentage)	Direction of change	Comment
Mergers			
Change in output			
Change in methodology			
Change in boundary			
Change in physical operating conditions	5	Decrease	5% reduction due to reduced development activity. Reduced civil works activity in FY13 due to the sell-down of existing lot profiles constituted at least 91% of our reduction in Scope 1 emissions, which equates to approximately 30% of our Total Scope 1 and 2 emissions reduction.
Unidentified			
Other			

#### CC12.2

Please describe your gross global 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
0.000069	metric tonnes CO2e	unit total revenue	3	Decrease	Our intensity figure based on total revenue dropped from 0.000071 in FY12 (NB - incorrectly stated in our last CDP submission) to 0.000069 in FY13 Improved energy efficiency across our Commercial Property assets, and a reduction in civil works in our Residential and Retirement Living businesses generated significant emissions reductions in FY13. Our total revenue in FY13 was 15% less than in FY12 therefore the intensity reduction was by no means aided by an increase in the metric denominator.

CC12.3

Please describe your gross global 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
94.6	metric tonnes CO2e	FTE employee	7.9	Decrease	Our intensity figure based on FTE dropped from 102.7 in FY12 (NB - incorrectly stated in our last CDP submission) to 94.6 in FY13. Improved energy efficiency across our Commercial Property assets, and a reduction in civil works in our Residential and Retirement Living businesses generated significant emissions reductions in FY13. Our FTE in FY13 was 10% less than in FY12 therefore the intensity reduction was by no means aided by an increase in the metric denominator.

CC12.4

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
.062	metric tonnes CO2e	square meter	10	Decrease	Energy efficiency initiatives across our retail portfolio generated a significant reduction in emissions (19% of Total Scope 1 and 2 emissions reductions). The Gross Lettable Area of our retail portfolio also increased which contributed to the reduced intensity metric.

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
.0721		square meter	7	Decrease	Energy efficiency initiatives across our office portfolio generated a significant reduction in emissions (27% of Total Scope 1 and 2 emissions reductions). The Net Lettable Area across our office portfolio decreased by 22% so the reduced intensity metric was not aided by a larger metric denominator, and is testament to the significant emissions achieved in FY13.

#### Further Information

All our emissions data is reported in our FY13 Sustainability Reporting <http://www.stockland.com.au/sustainability/2013/energy-and-climate-change.htm#tab-31716>. The content and data regarding our energy and emissions performance is equally available in the attached "Energy and Climate Change\_Final.pdf"

#### Attachments

[https://www.cdp.net/sites/2014/70/17770/Investor CDP 2014/Shared Documents/Attachments/InvestorCDP2014/CC12.EmissionsPerformance/6. Energy and Climate Change\\_Final.pdf](https://www.cdp.net/sites/2014/70/17770/Investor%20CDP%202014/Shared%20Documents/Attachments/InvestorCDP2014/CC12.EmissionsPerformance/6.%20Energy%20and%20Climate%20Change_Final.pdf)

### Page: CC13. Emissions Trading

#### CC13.1

**Do you participate in any emissions trading schemes?**

Yes

#### CC13.1a

**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
Other: Energy Savings Scheme	Sun 01 Jan 2012 - Mon 31 Dec 2012	4191	0	4191	Facilities we own and operate

### CC13.1b

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

The Energy Savings Scheme (ESS) establishes legislated annual energy savings targets that must be met through the creation and surrender of Energy Savings Certificates (ESCs).

Stockland is an Accredited Certificate Provider (ACP) and creates ESCs by carrying out Recognised Energy Savings Activities (RESA) as defined in the Energy Savings Scheme Rule of 2009. These activities include: the replacement and installation of common electrical appliances, high efficiency lighting and other energy saving devices; the NABERS rating of buildings; changes in electricity consumption measured against an established baseline etc.

Stockland's RESA is "Building Energy Consumption Data" and ESCs are calculated using the Metered Baseline Method (NABERS)

As an ACP, Stockland is obligated to keep records of its accredited energy savings project, including: the location in which the energy savings activity occurred; the energy savings (calculated in accordance with the ESS Rule) arising from that activity; and the methodology, data and assumptions used to calculate those energy savings.

To conform with requirements, Stockland is also required to provide a document register that identifies and lists all relevant records of the energy savings project; a record keeping policy, process map, documented procedures, and arrangements that are operational (not just planned); and evidence that the records will be kept for at least 6 years.

Our strategy for complying with the scheme is to ensure these requirements are integrated into our management system and that responsibility is assigned to a member of the sustainability team to monitor and maintain the system and associated processes.

### CC13.2

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

Yes

CC13.2a

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

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 cancelled	Purpose, e.g. compliance
Credit Origination	Energy efficiency: industry	The MBM - NABERS Baseline calculation sub-method is used to establish an electricity consumption baseline and calculate Energy Savings. The buildings in our portfolio eligible to use the NABERS baseline approach are our offices and shopping centres. In 2009, Stockland obtained approved NABERS Ratings for a selection of our Commercial Property assets, and as long as our performance demonstrates an improvement against this baseline rating each year we are able to generate Energy Savings Certificates annually.	Other: Energy Savings Certificates	4191		Not relevant	Other: Opportunity

Further Information

Page: CC14. Scope 3 Emissions

CC14.1

Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
Purchased goods and services	Not relevant, explanation provided				Emissions data from contractors and suppliers involved in our Residential and Retirement Living developments is captured within our Scope 1 + 2 emissions data, as their activities fall within our operational control boundary. The contractors and suppliers working on our Commercial Property developments do not fall within our operational control boundary and so we do not collect or report data on their emissions - this is managed by the principal contractor/operator on site.
Capital goods	Not relevant, explanation provided				Embodied carbon is negligible as percentage of total emissions.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, calculated	15604	Total transmission losses from electricity, gas and fleet fuel. Calculated using National Greenhouse Accounts Scope 3 emission factors.	100.00%	Relevant as it is information requested under NGRS, and reductions are directly related to our reduction in purchased electricity consumption.
Upstream transportation and distribution	Not relevant, explanation provided				Not considered material to our overall emissions - however we do implement specifications to ensure transportation of waste and materials on site is minimised to improve efficiencies and avoid unnecessary fuel consumption.
Waste generated in operations	Relevant, calculated	14218	Calculated using the National Greenhouse Accounts Scope 3 emissions factors, based on waste data collected, reported and assured in Sustainability Report.	100.00%	The reduction of waste to landfill is an ongoing focus for both our development and operational activities. We are currently tracking at 90% diversion from landfill in our development construction waste, 97% diversion from landfill for our Residential and Retirement Living contractor waste, and in operations) 30% diversion from landfill across our Retail assets and 70% across our office assets.
Business travel	Relevant, calculated	1709	These emissions include Car hire and Air travel. Car hire was calculated using emission factors contained within the <a href="http://www.greenvehicleguide.gov.au">www.greenvehicleguide.gov.au</a> . Air travel was calculated using the	100.00%	Given the geographical spread of our assets, business travel is considered a material source of Scope 3 emissions for our business.



Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
			following emission factors per km travelled for short, medium and long haul respectively: 0.00057, 0.00029 and 0.00031 tCO2/km		
Employee commuting	Not relevant, explanation provided				As a proportion of our overall emissions this is insignificant.
Upstream leased assets	Not relevant, explanation provided				Not applicable to our business
Downstream transportation and distribution	Not relevant, explanation provided				Not applicable to our business as we do not "transport or distribute" our assets. Any transportation or distribution associated with our tenants activities is beyond our scope of control.
Processing of sold products	Not relevant, explanation provided				Not applicable to our business
Use of sold products	Not relevant, explanation provided				While this is not relevant to our overall emissions performance, as a responsible property developer we work to minimise the emissions generated by our Retirement Living and Residential customers. We have processes in place to ensure optimal energy efficiency in lot design and orientation, to maximise energy efficiency of the built environment in retirement living, and to influence the choices of our residential customers with regard to energy efficient home design. We have initiatives in place to encourage energy efficiency and emissions reduction in our residential communities ( <a href="http://www.stockland.com.au/sustainability/2013/32255.htm">http://www.stockland.com.au/sustainability/2013/32255.htm</a> ), and the emissions generated by our retirement living residents are captured as part of our recorded Scope 2 emissions.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
End of life treatment of sold products	Not relevant, explanation provided				Our products are designed for longevity and ongoing upgrade and refurbishment in response to changing climate, operating conditions and/or trends, therefore "end of life" is not a point of focus for our business.
Downstream leased assets	Not relevant, explanation provided				The energy consumption of our retail or industrial tenants is outside our scope of control, however we do work to positive influence tenant behaviour. The emissions of our office tenants are captured to inform NABERS ratings across our portfolio of office assets.
Franchises	Not relevant, explanation provided				Not applicable to our business
Investments	Not relevant, explanation provided				Not applicable to our business
Other (upstream)					
Other (downstream)					

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**CC14.2**

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

Third party verification or assurance complete

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**CC14.2a**

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

Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of Scope 3 emissions verified (%)
Limited assurance	<a href="https://www.cdp.net/sites/2014/70/17770/Investor%20CDP%202014/Shared%20Documents/Attachments/CC14.2a/PwC%20Assurance%20Report%20to%20Stockland%20-%20Sustainability%20Report.pdf">https://www.cdp.net/sites/2014/70/17770/Investor CDP 2014/Shared Documents/Attachments/CC14.2a/PwC Assurance Report to Stockland - Sustainability Report.pdf</a>	Page 1 of statement states Limited Assurance of Scope 3 emissions.	ISAE 3410	100

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#### CC14.3

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

Yes

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#### CC14.3a

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Business travel	Other: Increased employee mobility	15	Increase	While our emissions from car hire dropped significantly in the reporting period due to new policies implemented regarding car hire selection, our emissions from air travel increased due to increased mobility of employees across our assets.
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Emissions reduction activities	30	Decrease	This refers to total transmission and production losses from purchased electricity, gas and fleet fuel. The decrease is a direct reflection of the reduction in our Scope 2 emissions due to energy reduction initiatives across our portfolio.

#### CC14.4

**Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)**

- Yes, our suppliers
- Yes, our customers
- Yes, other partners in the value chain

#### CC14.4a

**Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success**

We engage with our suppliers in different ways at various stages of project delivery:

- 1) As part of the tender process we engage with potential suppliers and request detailed outlines of activities underpinning their scope of work. This enables us to identify those contractors who will complete the work with the least amount of material/waste relocation/transportation, ensuring that we are immediately selecting less emission-intensive contractors in terms of fuel consumption. We also review Environmental management credentials of potential contractors (CP, Resi and RL)
- 2) As part of the design phase, we engage with suppliers to ensure they understand the technical and environmental requirements of the project, outline the specifications and standards with regard to energy efficiency elements etc. and work with them to meet these standards. This engagement is critical as our Green Star ratings depend on their ability to deliver on the required specifications. (CP, Resi, and RL)
- 3) Throughout construction we collect and monitor emissions data from our contractors (Resi and RL only -contractor emissions in CP do not fall within our

operational control boundary) We have also started to engage more closely with our larger contractors to identify opportunities for performance improvements (e.g. Energy Efficiencies Opportunities Workshops).

We prioritize this more detailed engagement with larger contractors given that they generally have the greatest impact, deliver the most significant stages of project work, and have the most mature systems and processes.

We systematically review the effectiveness of our engagement with suppliers, and in FY12 several areas were identified for improvement. As a result, while engagement with suppliers in our Resi and RL businesses had formerly been handled by our Development Managers, in FY13 we transitioned to a new model (consistent with our approach in Commercial Property) in which this engagement is managed by specific Project Managers with responsibility for promoting greater engagement and supporting contractor performance improvements across our development projects.

**CC14.4b**

**To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent**

Number of suppliers	% of total spend	Comment
340	30%	While we engage with critical suppliers across all business units on issues of environmental performance (e.g. general environmental performance and capabilities, project-specific Environmental Management Plans, and minimum standards for environmental performance), we only request and capture emissions data from those contractors involved in our Residential and Retirement Living Developments as these are the only contractors whose activities fall within our operational control boundary. As such, the figures shown are based on our FY13 spend analysis, and refer to the Construction Contractors on our Residential and Retirement Living Developments exclusively (not Commercial Property where a principal contractor will have operational control of the site and have responsibility for Environmental management and Health and Safety policies and procedures). The percentage provided is that of Total Group Spend, but these suppliers constitute 60% of Stockland's Total Spend for Building Construction and Maintenance.

**CC14.4c**

**If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data**

How you make use of the data	Please give details
Identifying GHG sources to prioritize for reduction actions	Given that we capture and report contractor emissions as part of our Scope 1+2 emissions, and we have identified Energy and Emissions as a key focus area for our business, we use the data collected to identify opportunities to engage with critical suppliers (e.g. development contractors) across our Residential and Retirement Living business to identify opportunities for emissions reductions.

**CC14.4d**

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

**Further Information**

**Module: Sign Off**

**Page: CC15. Sign Off**

**CC15.1**

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category

**Further Information**

**CDP**