

## PUBLIC REPORT TEMPLATE

### Controlling Corporation

Stockland Corporation Limited

### Period to which this report relates

Start

1 July 2008

End

30 June 2009

### Part 1 – Information on assessments completed to date

**Table 1.1 – Description of the way in which the Corporate Group (or part of it) has carried out its assessments**

Stockland has continued to undertake energy efficiency opportunity assessments in 2008/09 reporting period in conjunction with its third party energy services consultants Energetics . A total of 15 commercial and retail sites were assessed during 2008/2009. This was in addition to the six sites assessed in the previous period, and additional to the 109 efficiency projects that were approved for implementation in the previous period across 18 retail properties.

As with prior assessments, a comprehensive process was undertaken, addressing Energy Efficiency Opportunity (EEO) requirements. Detailed analysis of energy usage was carried out for each site, with opportunities identified and evaluated. Outcomes of the assessments have been communicated to relevant employees for further action.

Since the commencement of the EEO Program Stockland's energy savings have reached in excess of 21,000 GJ each year. Stockland has now undertaken energy efficiency assessments for more than 42% of its total Commercial Property portfolio.

During 2008/09 Stockland also carried out extensive measurement and verification of initiatives implemented across 18 retail sites. The organisation has updated metrics, including energy savings and paybacks to reflect the results from these initiatives. Stockland has also reviewed those opportunities identified in the 2007/08 assessments, making adjustments to savings and paybacks (as applicable) for sites where energy prices have changed significantly.

During the course of this year a total of eight sites were sold. Energy use by these sites was more than 6,000 MWh per year on an annualised basis.

As part of this reporting process Stockland has also reviewed its progress in relation to meeting the stated actions in its Assessment and Reporting Schedule (approved in 2008). The main highlighted points from this review are noted below.

### **Leadership**

- During FY09 as compared to FY07, Stockland reduced energy consumption in its:
  - existing office portfolio by 24% ; and
  - operating retail centres by 15%.
- Stockland achieved an average 3.4 Star NABERS Energy rating for its office building portfolio (Stockland managed buildings) for calendar year 2008. For those office buildings with sub-metering installed, Stockland achieved an average 3.6 Star NABERS Energy rating.
- Stockland has developed an online carbon management tool to aid climate change planning, reporting and forecasting. The tool now supports our EEO and NGERs reporting obligations.
- Stockland commenced operation of a tri-generation plant at its Sydney head office during 2009.
- Stockland has set a number of targets against FY09 performance, including attaining 4.5 star average NABERS office Energy rating for our office portfolio, and reducing intensity of energy use across our commercial property portfolio by 20% by FY14.

### **People**

- The Stockland Commercial Property Sustainability team has responsibility for coordinating EEO related activities. The team follows up the progress of actions through monthly regional teleconferences, and meetings with facility managers to review opportunities.
- Facilities Managers are actively engaged in energy efficiency opportunities identification workshops, verification and implementation of initiatives.
- Opportunities assessment reports are used to develop action plans. Reports also inform budget and decision making processes.

### **Information & Data Analysis**

- During FY09 Stockland's Retail, and Office and Industrial businesses were combined to form Stockland's Commercial Property business. This has provided the opportunity to streamline data processes and simplify eco-efficiency reporting.
- Stockland continues to benchmark the energy efficiency performance of each office and retail asset individually due to the diverse nature of the portfolio. Stockland also assesses, monitors and discloses the performance of the overall portfolio, using rating tools such as NABERS as part of its annual Corporate Responsibility and Sustainability reporting program.
- Market interest in eco-efficiency performance for office buildings continues to grow. Reflecting this awareness, Stockland is increasingly integrating eco-efficiency targets and metrics into business decision making.
- Sub metering has continued to be implemented across the office portfolio. Two existing buildings have had metering systems installed following EEO assessments. Sub metering is being installed in another two office buildings and three retail centres during FY10. Since FY08, all new office buildings commissioned have had sub metering systems installed.
- The metering component of Stockland's electricity accounts has been separately contracted to a metering provider. This has allowed for improved analysis of load profiles and identification of energy waste.

### **Opportunities Identification and Evaluation**

- Since commencing participation in the EEO Program, Stockland has completed EEO assessments on 21 office and retail assets. Opportunities assessment reports are used to assist in the development of action plans, budgeting and ongoing decision-making processes.
- Opportunities that involve capital expenditure are investigated. Where feasible, these energy efficiency opportunities are considered for inclusion into maintenance capital budgets.
- Recent energy efficiency projects in retail centres have been independently reviewed and verified by a third party energy consultant and found to have met predicted energy savings.

- To improve confidence in setting targets for energy efficiency and emissions reductions, Stockland has commenced work on a carbon abatement cost curve. This means understanding those actions that achieve the biggest emissions cuts at the lowest cost across the Commercial Property portfolio. The cost curve is based on evidence of opportunities identified through EEO assessments and reports. This is enabling Stockland to identify specific abatement opportunities and the costs of implementing these measures. The methodology assesses the projects over a period of four years and demonstrates the average cost of abatement if each action is implemented cumulatively.

**Decision Making**

- Energy efficiency projects are evaluated based on existing simple payback analysis and whether they meet financial hurdle rates. Improvement to NABERS ratings for office buildings is an important criterion for assessing the feasibility of projects.
- Over the past two assessment periods, most opportunities implemented have either involved existing capital commitments to energy efficiency projects, or projects requiring little or no capital expenditure (typically operations-related).
- The evaluation of effectiveness of completed projects to is measured in terms of reduced energy usage on utilities accounts, sub metering data, and improvement to NABERS ratings for office buildings.
- Future decision making will be informed by Stockland’s own carbon abatement cost curve and related target-setting tools. This will enable Stockland to set emissions reduction targets, supported by evidence-based cost analysis. Stockland will be able to quickly model the costs of reducing emissions across the portfolio as well as at the individual asset level.

**Communicating Outcomes**

- Stockland participates in external investor surveys such as the Carbon Disclosure Project and the Dow Jones Sustainability Index. Disclosure of energy usage and carbon emissions is provided in these surveys. Stockland’s Carbon Disclosure Project report submission is made publicly available.
- The annual Stockland Corporate Responsibility and Sustainability (CR&S) Report is the primary communication channel by which the organisation communicates its annual eco-efficiency performance. The content of the CR&S report is reviewed by Stockland’s CR&S Committee and is independently assured to the international sustainability reporting standard, AA1000AS.
- EEO assessment reports are distributed to Facilities Management teams via the Commercial Property Operations Team Site through Stockland’s Intranet. Progress is monitored via monthly regional teleconferences.
- Using the reports as an action plan, and with assistance from the Commercial Property Sustainability team, Facilities Managers identify which opportunities can be addressed immediately and which opportunities will require further investigation.
- Case studies are produced for communicating energy savings successes and lessons learnt, for both internal and external stakeholders.

**Table 1.2 – Energy use assessed**

Group member and/or business unit and/or key activity and/or site that has had an assessment completed by the end of this reporting period.	Period over which assessment was undertaken	Energy use per annum in GJ in the current reporting year
<b>Commercial sites:</b>		
7 Macquarie Pl, Sydney	July 2007 - June 2008	5,884
135 King St, Sydney	July 2007 - June 2008	21,524

52 Martin Pl, Sydney	July 2007 - June 2008	17,323
601 Pacific Hwy, St Leonards	July 2008 - June 2009	5,676
Piccadilly Tower, 133 Castlereagh St, Sydney	July 2008 - June 2009	18,011
68 Northbourne Ave, Canberra	July 2008 - June 2009	6,180
Waterfront Place, 1 Mary St, Brisbane	July 2008 - June 2009	25,620
175 Castlereagh St, Sydney	July 2008 - June 2009	4,570
75 George St, Parramatta	July 2008 - June 2009	4,880
452 Flinders St, Melbourne	July 2008 - June 2009	17,119
Piccadilly Court, 222 Pitt St, Sydney	July 2008 - June 2009	4,977
<b>Retail centres:</b>		
Baulkham Hills	July 2007 - June 2008	6,759
Bay Village	July 2007 - June 2008	9,018
Wetherill Park	July 2007 - June 2008	10,260
Cleveland	July 2008 - June 2009	4,587
Burleigh Heads	July 2008 - June 2009	10,383
Bathurst	July 2008 - June 2009	4,548
Cairns	July 2008 - June 2009	23,944
Forster	July 2008 - June 2009	1,478
Jesmond	July 2008 - June 2009	7,633
Glendale	July 2008 - June 2009	3,305
<b>Total energy assessed</b>		<b>213,677</b>
<b>Total energy use of the group in the current reporting year</b>		<b>770,203</b>
<b>Total energy assessed expressed as a percentage of total current energy use</b>		<b>28%</b>

## Part 1 – Information on assessments completed to date (continued)

**Table 1.3 – Accuracy of energy use data**

Entity	% achieved	Reasons for not achieving data accuracy to within $\pm 5\%$
Energy use data is within $\pm 5\%$ accuracy		

## Part 2 - Energy Efficiency Opportunities that have been identified and evaluated

### Part 2A - New Assessments completed during the reporting period

Name of Group member or business unit or key activity or site: **Commercial Property** (includes office, industrial and retail)

A total of 15 sites were assessed during the FY09 period, comprising eight office buildings and seven retail centres.

Energy use of the entity during the current reporting period (FY09, this includes electricity and natural gas consumption for Commercial Property facilities).

507,738	GJ
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**Table 2.1 – Opportunities assessed to an accuracy of ±30% or better**

Status of opportunities identified		Number of opportunities	Estimated energy savings per annum by payback period (GJ)			Total estimated energy savings per annum (GJ)
			0 – < 2 years	2 – ≤ 4 years	> 4 years	
Outcomes of assessment*	Total Identified	189	10,283	5,563	7,578	23,424
Business Response*	Under Investigation	163	8,963	4,139	6,111	19,212
	To be Implemented	6	109	552	1,203	1,864
	Implementation Commenced	0	0	0	0	0
	Implemented	8	524	873	0	1,397
	Not to be Implemented	12	687	0	264	951

Name of Group member or business unit or key activity or site: **Commercial Property** (includes Office/Industrial and Retail)

A total of 15 sites were assessed during the FY09 period comprising eight office buildings and seven retail centres.

Energy use of the entity during the current reporting period  
(FY09)

507,738	GJ
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**Table 2.2 - Opportunities assessed to an accuracy of less than  $\pm 30\%$**

Status of opportunities identified		Number of opportunities	Estimated energy savings per annum by payback period (GJ)			Total estimated energy savings per annum (GJ)
			0 – < 2 years	2 – $\leq$ 4 years	> 4 years	
Outcomes of assessment	Total Identified	108	N/A	N/A	N/A	N/A
Business Response	Under Investigation	81	N/A	N/A	N/A	N/A
	To be Implemented	8	N/A	N/A	N/A	N/A
	Implementation Commenced	2	N/A	N/A	N/A	N/A
	Implemented	4	N/A	N/A	N/A	N/A
	Not to be Implemented	13	N/A	N/A	N/A	N/A

**N/A:** Data not available as energy savings associated with these opportunities have not been quantified at this stage. Stockland anticipates reporting energy savings associated with these opportunities in a future report.

## Part 2 - Energy Efficiency Opportunities that have been identified and evaluated

### Part 2B - Update of assessments originally reported in previous reporting periods

Name of Group member or business unit or key activity or site: **Commercial Property** (includes Office/Industrial and Retail)

A total of six sites were assessed during FY08..

Sites assessed during the FY08 period comprised three commercial buildings: 52 Martin PI Sydney, 7 Macquarie PI Sydney and 135 King St Sydney; and three retail centres: Bay Village NSW, Baulkham Hills NSW and Wetherill Park NSW. In addition opportunities identified from walk through audits of 18 retail centres have been reported on.

Energy use of the entity during the current reporting period (FY09)

507,738	GJ
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**Table 2.3 - Opportunities assessed to an accuracy of  $\pm 30\%$  or better**

Status of opportunities identified		Number of opportunities	Estimated energy savings per annum by payback period (GJ)			Total estimated energy savings per annum (GJ)
			0 – < 2 years	2 – $\leq$ 4 years	> 4 years	
Outcomes of assessment*	Total Identified	64	4,653	5,098	14,429	24,179
Business Response*	Under Investigation	8	1,549	648	583	2,781
	To be Implemented	4	130	350	92	571
	Implementation Commenced	1	0	0	256	256
	Implemented	41	2,611	3,695	13,453	19,759
	Not to be Implemented	10	363	405	45	813

**Note:** Stockland's FY08 EEO report showed 133 opportunities, with 24 under investigation at three office buildings and 109 either implemented or in the process of being implemented at 18 retail centres.

The 109 projects have been aggregated into 18 projects for this and future reporting, following the conduct of independent measurement and verification of savings at each of the 18 retail centres.

For those 24 opportunities under investigation at three office buildings, many of these have been implemented, and further opportunities have been progressed at these three sites and are reported above.

Name of Group member or business unit or key activity or site: **Commercial Property** (includes office, industrial and retail)

Sites assessed during the FY08 period comprised three commercial buildings: 52 Martin PI Sydney, 7 Macquarie PI Sydney and 135 King St Sydney; and three retail centres: Bay Village NSW, Baulkham Hills NSW and Wetherill Park NSW.

Energy use of the entity during the current reporting period (FY09)

507,738	GJ
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**Table 2.4 - Opportunities assessed to an accuracy of less than ±30%**

Status of opportunities identified		Number of opportunities	Estimated energy savings per annum by payback period (GJ)			Total estimated energy savings per annum (GJ)
			0 – < 2 years	2 – ≤ 4 years	> 4 years	
Outcomes of assessment*	Total Identified	74	N/A	N/A	N/A	N/A
Business Response*	Under Investigation	22	N/A	N/A	N/A	N/A
	To be Implemented	11	N/A	N/A	N/A	N/A
	Implementation Commenced	1	N/A	N/A	N/A	N/A
	Implemented	30	N/A	N/A	N/A	N/A
	Not to be Implemented	10	N/A	N/A	N/A	N/A

**N/A:** Data not available as energy savings associated with these opportunities have not been quantified at this stage. Stockland anticipates reporting energy savings associated with these opportunities in future reporting.

## Part 2 - Energy Efficiency Opportunities that have been identified and evaluated

### Part 2C - Details of at least three significant opportunities found through EEO assessments

**Table 2.5 – Description of 3 significant opportunities**

**Opportunity 1 – 52 Martin Pl, Sydney – Colonial Centre**

Various energy opportunities were identified in an initial opportunities assessment in FY08. Many of these opportunities were implemented during FY09. Those projects that achieved the most significant direct energy saving are listed below:

1. HVAC - Operating hours: Air conditioning operating hours were reduced from 0700-1900 to 0700 – 1730 Monday to Friday (excluding Public Holidays).

This has resulted in annual savings of:

- 114,000 kWhrs
- 123.12 tonnes CO<sub>2</sub>-e
- \$17,100

Cost to implement opportunity: \$0

2. HVAC – Air conditioning face wash air handling units (AHUs): AHUs are now manually switched off during after hours air conditioning operation, and are cycled in response to outside air ambient temperatures and solar load.

This has resulted in annual savings of:

- 140,000 kWhrs
- 151.2 tonnes CO<sub>2</sub>-e
- \$21,000

Cost to implement opportunity: \$0

### **Opportunity 2 - 18 Retail centres efficiency program**

An energy and water efficiency implementation program was rolled out across 18 Stockland owned retail centres across Australia during FY08. Energy efficiency initiatives implemented involved heating, ventilation, air conditioning and lighting systems. Water conservation mechanisms including flow control devices were installed, and taps and shower heads were replaced with more efficient alternatives to reduce unnecessary water consumption.

A total investment cost of around \$3M was spent on this program. Energy and water savings have been independently verified.

This has resulted in annual savings of:

- 16,600 GJ
- 4,100 tonnes of CO<sub>2</sub>-e
- 64,800 kL (equivalent to filling 50 Olympic size swimming pools)
- \$690,000 (energy and water cost savings)

### **Opportunity 3 – Sub-metering at 52 Martin Pl Sydney**

As a part of Stockland's energy efficiency program in FY09, a sub-metering system was installed at 52 Martin Pl, Sydney (a building joint-owned by Stockland). The metering system comprises electricity meters on all main switchboards. This system enables a comprehensive understanding of the building's operational consumption, including identification of energy and water efficiency opportunities, as well as benchmarking and performance tracking. The installation cost for the meters was \$53,000.

Similar sub-metering systems have been previously installed in other Stockland buildings. These systems are also useful in identifying further building operations efficiency opportunities, such as improvement to time scheduling of building air conditioning, ventilation and lighting systems.

### **Opportunity 4 – 135 King St Sydney**

Various energy opportunities were identified in an initial opportunities assessment in FY08. Several of these opportunities have been progressed in FY09, with the assistance of 21 electricity sub-meters, nine water sub-meters and one gas sub-meter. Two projects that achieved significant direct energy saving are listed below:



1. HVAC – optimise air conditioning time schedules for tenancies.

This has resulted in annual savings of:

- 199,700 kWhrs
- 202.2 tonnes CO<sub>2</sub>-e

Cost to implement opportunity: \$18,500

2. Lighting – optimise car park lighting time schedules.

This has resulted in annual savings of:

- 17,300 kWhrs
- 17.52 tonnes CO<sub>2</sub>-e

Cost to implement opportunity: \$1,650

### Part 3 - Voluntary Contextual Information

### Part 4 - Declaration

**Table 4.1 - Declaration of accuracy and compliance (mandatory information)**

The information included in this report has been reviewed and noted by the board of directors and is to the best of my knowledge, correct and in accordance with the *Energy Efficiency Opportunities Act 2006* and *Energy Efficiency Opportunities Regulations 2006*.

Managing Director