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# Knowledge you can build on



CSR is committed to sustainable practices throughout our business and sharing this knowledge with the communities in which we operate.

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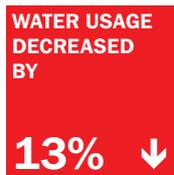
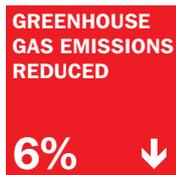
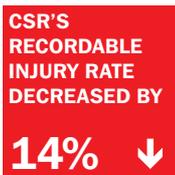
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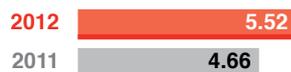
# Sustainability at a glance

CSR continued to progress its sustainability agenda over the past year.

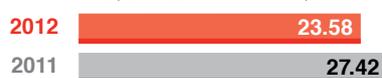


- CSR's safety record continued to improve on previous years with the number of recordable injuries (lost time; restricted work and medical treatment injuries) per million work hours decreasing by 14%
- CSR's total number of recordable injuries reduced by 16%
- CSR conducted 8,192 toolbox talks across its sites
- CSR's total greenhouse gas emissions were 644,959 tonnes of CO<sub>2</sub>-e – a reduction of 6% on the previous year
- CSR consumed 881,732 kilolitres of potable water – a decrease of 13% from the prior year
- CSR produced a total of 37,204 tonnes of solid waste – an increase of 1% on the prior year
- CSR reinforced its commitment to sustainable building with the opening of its own 8-Star energy efficient house in Sydney
- CSR launched Odyssey™ an intelligent, energy efficient, air cooling system that provides ventilation which can lower cooling costs by taking timely advantage of the natural temperature differences between outside and inside homes
- CSR Energy Solutions was launched to provide home owners comprehensive energy assessments and professional installation of CSR's energy efficiency product solutions
- CSR renewed support for the CSR Values Champions recognition scheme to recognise the outstanding performance of our employees
- CSR and its employees donated \$80,870 to a range of charitable organisations through its community support program

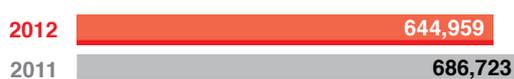
**Lost time injury frequency rate**  
AS AT 30 JUNE (PER MILLION WORK HOURS)



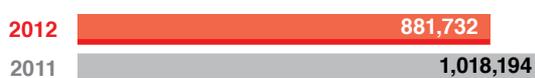
**Total recordable injury frequency rate**  
AS AT 30 JUNE (PER MILLION WORK HOURS)



**Tonnes of CO<sub>2</sub>-e**  
AS AT 30 JUNE



**Total water consumed<sup>^</sup>**  
AS AT 30 JUNE (KILOLITRES)



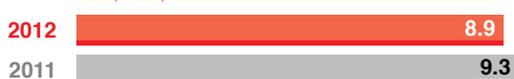
**Total solid waste produced#**  
AS AT 30 JUNE (TONNES)



**Number of CSR employees**  
AS AT 30 JUNE



**Average length of employee service**  
AS AT 30 JUNE (YEARS)



<sup>^</sup> Only metered water data is included  
# Solid waste does not include waste taken off-site for recycling/re-use



# Welcome message

Message from the Chairman of Workplace Health, Safety & Environment Committee and Managing Director

**We are pleased to continue to share our progress on our sustainability agenda.**

CSR is a market leader in the building industry. As one of Australia's oldest manufacturers we recognise our role in sustainability and the way we manage our business. We understand that a sustainable business must ensure that it minimises its impact on the environment and consumption of resources.

We also know that we must ensure we understand our customers and are responsive to their needs. As energy prices continue to rise, energy efficiency is a priority for our customers including home owners and builders and that improving the quality of buildings can deliver numerous advantages including lower power bills as well as superior acoustics, comfort and air quality.

In November 2012, the CSR House, a state-of-the-art building research centre in Schofields, Western Sydney was launched which represents the future of energy efficient housing design for Australia and New Zealand. The CSR House is not only a practical and energy efficient 8-Star product display home but also a working research and development facility.

We will be applying the knowledge gained from this research to develop innovative and pragmatic solutions for the building industry aimed at reducing waste and energy costs and increasing the speed of construction. More importantly CSR employees are committed to sharing this knowledge with our customers to help them add value to the buildings being created with our products.

As part of this process, we have begun life cycle assessments (LCA) of a number of products including Hebel® panels, Gyprock™ plasterboard and Bradford™ insulation. The LCA assessment tool enables us to analyse the "cradle to grave" environmental impact of our products.

Our sustainability agenda goes well beyond the products we create and how we create them. Our primary focus remains on safety and we place the same emphasis and importance on managing workplace health and safety as any other business imperative.

CSR's safety record continued to improve on previous years with the number of recordable injuries (lost time; restricted work and medical treatment injuries) per million work hours decreasing by 14%, with the reduction in the total number of recordable injuries reduced by 16%.

While there has been steady improvement in the last few months across most of CSR's businesses, the challenge is to achieve our goal where we all remain safe and injury free every day. The section on Workplace Health and Safety provides more information on our continued progress towards this goal.

This report also includes information on emissions, water use and waste production across our businesses. We have renewed our commitment to minimise the impact on our environment with specific targets to reduce greenhouse gas emissions and waste production and the consumption of energy and water used in production.

By 2020, CSR is targeting a 20 per cent reduction in the following categories using 2009/10 as the base year:

- Scope 1 and scope 2 greenhouse gas emissions through a reduction in carbon dioxide equivalent per tonne of saleable product
- Energy consumption per tonne of saleable product
- Potable water use per tonne of saleable product
- Waste production disposed at landfill per tonne of saleable product

To achieve these targets, CSR has launched a number of initiatives to improve operational performance and efficiency with over 200 energy reduction initiatives underway across our sites. As part of this process, CSR has received over \$1.6 million in grants from the Australian Government's Clean Technology Fund for six projects which will reduce our carbon emissions and improve energy efficiency.

CSR was selected for these grants because we have innovative projects which will make a substantial reduction in our energy use.

CSR has continued to make progress on sustainability during the past year and we would like to acknowledge and thank colleagues across CSR for their contribution.

We trust you find this report informative and encourage you to provide feedback to us on how we can improve our sustainability reporting via the CSR website ([www.csr.com.au](http://www.csr.com.au)).

**RAY HORSBURGH AM**  
Chairman, Workplace Health,  
Safety & Environment Committee

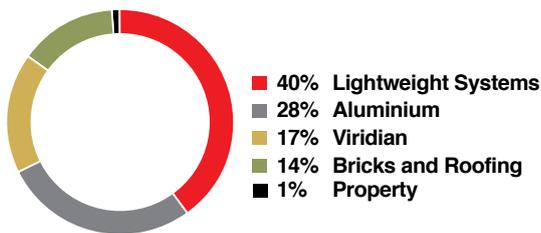
**ROB SINDEL**  
Managing Director



# About CSR

CSR is a leading building products company across Australia and New Zealand with an investment in a globally cost competitive aluminium smelter.

Total revenue  
AS AT 31 MARCH 2012



We are focused on building shareholder value by investing in and growing our businesses while operating in a sustainable manner across the company.

CSR is the name behind some of the market’s most trusted and recognised brand names in providing building products for residential and commercial construction.

Our businesses include some of the industry’s most highly regarded brands such as Gyprock™ plasterboard, Cemintel™ fibre cement, Bradford™ insulation, PGH™ bricks and pavers, Hebel® autoclaved aerated concrete panels, Monier™ rooftiles and Viridian™ glass.

We manufacture and supply a wide range of building products, with a particular focus on energy efficiency and sustainability in the built environment. This range includes energy efficient Viridian™ glass, Bradford™ insulation and lightweight Hebel® concrete panels to make buildings more energy efficient.

Through our innovation centre, we are also developing more innovative products and systems right across our portfolio targeting sustainable buildings of the future.

Through its 70% shareholding in Gove Aluminium Finance Limited, CSR holds an effective 25.2 per cent interest in the Tomago aluminium smelter, located in NSW. Tomago is a globally cost competitive smelter which produces around 528,000 tonnes of aluminium annually, some 25 per cent of Australia’s primary aluminium production.

CSR also generates additional earnings from its Property division which focuses on maximising financial returns by developing surplus former manufacturing sites and industrial land for sale.

CSR employs approximately 3,500 people in Australia and New Zealand.

## Leading building products brands





# Building sustainable and energy efficient solutions

CSR is leading the future of energy efficient housing design for Australia – Knowledge you can build on.

**CSR HOUSE SPECIFICATION**

**8-STAR RATING**

## Highlights

In November 2012, CSR launched the CSR House, a state-of-the-art building research centre in Schofields, Western Sydney. Unique to the industry, CSR House is not only a practical and energy efficient 8-Star product display home but also a working research and development facility, representing a major investment in industry innovation.



The facility was launched by industry luminary Professor The Hon John Thwaites, Professorial Fellow at Monash University, Chair of the Australian Building Codes Board and Chairman of ClimateWorks Australia, and attended by key figures from the Housing Industry Association, CSIRO, UNSW and Green Building Council amongst others.

CSR's many divisions worked together (including the provision of 44 different CSR products) to explore how a cost-effective and energy-efficient Australian home could best be constructed. The goal was to create a home with outstanding build quality, comfort, internal air quality and acoustics – as well as all-important thermal and energy efficiency.

CSR's people from across the business contributed to the success of this project which combines CSR products including Monier SolarTile, PGH Pewter & Glazed Bricks, Cemintel Designer Series, Hebel PowerFloor, Bradford SoundScreen, Viridian ThermoTech Low E Double Glazing and Viridian VLam Hush. Combined these products provide very high levels of energy efficiency which can be achieved affordably, without sacrificing style.

The resulting house has a heating and cooling load 45% lower than that of a 6-Star home. In fact, early indications suggest the company's focus on reducing air leakage has resulted in even further reduction.

To ensure the ongoing research facility of CSR House, it has been fitted with 140 data collection points, generating a huge body of knowledge to be shared with the industry. CSR is working with leading Australian institutions in a bid to learn more about achieving lower cost energy efficient homes.

The CSR House was a finalist at the Housing Industry Association GreenSmart awards and the Building Product News Sustainability Awards. The awards highlight environmentally friendly homes featuring energy saving techniques, material selection and innovative building methods.

For further detail on the construction of the CSR House visit <http://www.youtube.com/user/CSRhouseproject>.

## Building sustainable and energy efficient solutions (continued)

### CSR'S portfolio targets sustainable building

CSR's portfolio of building products targets sustainable and energy efficient solutions in residential and commercial construction. To find out more about how our individual businesses manage sustainability and develop energy efficient solutions, please visit each business online below for more information.



### Launch of Odyssey™ intelligent hybrid ventilation

Odyssey™ is an intelligent, energy efficient, air cooling system that provides thorough ventilation of the home to remove odours, allergens and freshen the air. Designed and built in Australia to meet the demands of the harsh Australian climate, Odyssey can lower cooling costs by taking timely advantage of the natural temperature differences

between outside and inside homes. Incorporating highly efficient hybrid technology, the sleek roof mounted ventilator is ducted through the roof space to an attractive ceiling vent in the living area. Internal and external sensors monitor internal and external temperatures and work out how best to maintain comfortable living environment.



Roof Turbine is available in four different colours to blend seamlessly to your home.



Gloss grille for inside your home.

### Launch of CSR Energy Solutions



Some of the lessons learnt during the design and construction process of the CSR House will be employed by CSR in a new business division, CSR Energy Solutions.

Using its knowledge of improving energy efficiency of residential and commercial buildings, CSR is offering home owners comprehensive energy assessments. This includes professional installation of CSR's energy efficiency product solutions including Bradford Solar, Bradford Draught Proofing, Edmonds ventilation, Bradford Lighting, Bradford Insulation and a range of energy efficient accessories.

CSR Energy Solutions ([www.csrenergysolutions.com.au](http://www.csrenergysolutions.com.au)) will also be providing commercial businesses and industrial operations with a range of audit and consulting services to reduce energy costs and carbon emissions.



# Scope of this report

This report provides information on CSR’s sustainability record and also on the opportunities we are pursuing to make our business more sustainable both now and into the future.

Although CSR’s financial year ends on 31 March, this report covers CSR’s activities (including safety performance, emissions and energy data, waste and water use) for the period of 1 July 2011 to 30 June 2012 to be consistent with the National Greenhouse and Energy Reporting (NGER) scheme.

Data for water usage and waste produced by CSR’s businesses has been categorised into the three operating business units of the division:

- Lightweight Systems’ major brands include Bradford™ insulation, Hebel® panels, Edmonds™ ventilation, Gyprock™ plasterboard, Cemintel™ fibre cement and Ceilector™ ceiling systems
- Viridian™ includes the Viridian glass business
- Bricks and Roofing’s major brands include PGH™ bricks and pavers and Monier™ rooftiles

This report covers only activities in which CSR has a majority equity interest. For these activities CSR has reported 100% of emissions.

This report does not include activities where CSR is not the majority shareholder. For example, the activities of Tomago Aluminium Company, in which CSR has an effective 25.2 per cent interest, through its 70 per cent shareholding in Gove Aluminium Finance Limited, are not included in this report. Data from these activities is reported directly by other entities.

All physical measurements in this report are in the metric system. All financial figures are in Australian dollars, unless stated otherwise.

In creating this report we continued to reference a wide range of material including:

- Reviewing CSR’s activities and operations across each business to collect data on energy use and emissions and prepare an inventory of greenhouse gas emissions
- Continuing to reference the Global Reporting Initiative (GRI) G3.1 Sustainability Reporting Guidelines, United Nations Global Compact and Federal Government policy towards sustainability reporting in Australia
- Reviewing best practice sustainability reports both in Australia and globally. We monitored and reviewed feedback from CSR’s previous sustainability reports and continued to gauge feedback from stakeholders including investors, corporate governance advisers, analysts, media and staff



# Governance and Risk Management

CSR recognises that good corporate governance is fundamental to being a sustainable business.

**Our corporate governance is the system by which the company is directed and managed.**

It is the framework of rules, relationships, systems and processes which underpin CSR's long established values and behaviours and the way we do business. It is also the framework within which the CSR board of directors is accountable to shareholders for the operations, profit performance and growth of the company and how the risks of the business are identified and managed.

The directors of CSR are committed to ensuring that the company maintains an effective system of corporate governance and that good corporate governance is an integral part of the culture and business practices of the CSR group.

### Code of business conduct and ethics

The CSR board has endorsed a Code of Business Conduct and Ethics that formalises the longstanding obligation of all CSR people, including directors, to behave ethically, act within the law, avoid conflicts of interest and act honestly in all business activities.

CSR's Code of Business Conduct and Ethics reinforces the company's commitment to giving proper regard to the interests of people and organisations dealing with the company. Each CSR employee is required to respect and abide by the company's obligations to employees, shareholders, customers, suppliers and the communities in which we operate.

In addition, the board has adopted specific policies in key areas, including trade practices; workplace health, safety and the environment; fairness, respect and diversity in employment; capital investment; dealing with price sensitive and other confidential information; trading in CSR shares; privacy; indemnification of employees; and requirements for authorising and entering into business transactions on behalf of CSR.

CSR employees are required to sign a certificate of compliance each year signifying that they have read and complied with the Code of Business Conduct and Ethics and are not aware of any breaches of that policy.

### CSR values

CSR's values reflect the company's commitment to sustainability. They have been developed to ensure CSR acts as a responsible corporate citizen for the benefit of all of stakeholders.

The CSR values are communicated across the company through a variety of formal and informal channels.



#### Workplace Health, Safety & Environment (WHSE)

We care for and protect each other, our business and our environment



#### Working Together

We respect one another and achieve more by working together across CSR



#### Customers

We listen to our customers to understand and meet their needs



#### Innovation

We strive to develop new ideas and continuously improve the way we do business



#### Results

Together we achieve positive and sustainable results for each other and our stakeholders

## Governance and Risk Management (continued)



Annually, CSR employees nominate colleagues for an award as part of the CSR Values Champions Recognition Scheme, which encourages our employees to demonstrate the CSR Values. The nominations are judged by the executive management team, culminating in an awards dinner to acknowledge the achievements of nominated employees.

Over the past few years children of employees are also given the opportunity to draw a picture depicting CSR values which are showcased in CSR's internal newsletter.



CSR'S VALUES DRAWING COMPETITION WINNER, TUMI HUYNH, AGE 11, FATHER VAN CUONG HUYNH, VIRIDIAN, DANDENONG, VIC.

### Risk Management

CSR has a sound system of risk oversight and management and internal control.

There are many risks in the markets in which CSR operates. A range of factors, some of which are beyond CSR's control, can influence performance across CSR's businesses. In many of these businesses, CSR constantly and deliberately assumes certain levels of risk in a calculated and controlled manner. CSR has in place limits and a range of policies and procedures to monitor the risk in its activities and these are periodically reviewed by the board. CSR's Risk Management Policy sets out the framework for risk management, internal compliance and control systems.

There are several layers that assist the board in ensuring the appropriate focus is placed on the risk management framework.

The Risk & Audit Committee reviews and reports to the board in relation to the company's financial reporting, internal control structure, risk management systems and the internal and external audit functions. The Risk & Audit Committee recommends to the board the appointment or dismissal of the internal auditor, who is independent of the external auditor.

The Workplace Health, Safety & Environment (WHSE) Committee reviews and reports to the board on the management of the company's safety, health and environment liabilities and legal responsibilities; and the senior management team manages and reports to the board on business and financial risks and overall compliance.

Risk management is sponsored by the board, and is a top priority for senior managers, starting with the managing director.

It is the policy of the board that a majority of the members of each board committee be independent directors, that all Risk & Audit Committee members be independent directors and that the Remuneration & Human Resources Committee and the WHSE Committee be chaired by independent directors.



# Our people

CSR recognises that a sustainable workplace is one that is both safe and rewarding for our employees.

As at 30 June 2012, CSR had 3,540 full time equivalent (FTE) employees across its operations in Australia and New Zealand. This total is down 5% from the previous period following the sale of the Malaysia AAC panels business in December 2010 and is in line with the deterioration in construction markets which has resulted in less demand for building products.

The average length of service for CSR employees is 8.9 years, slightly lower than the prior year. Employee turnover was 11% – compared to 13% the previous year.

## Performance driven remuneration aligned with shareholder interests

CSR's remuneration framework is based on the following principles:

Performance driven	<p>Remuneration should reward executives based on annual performance against business plans and longer term shareholder returns.</p> <p>A significant proportion of executive remuneration should be 'at risk' and performance dependent.</p> <p>Performance measurement is mainly focused at the organisational level which best reflects the role's influence.</p>
Alignment with shareholder interests	<p>Incentive plans and performance measures are aligned with CSR's short and long term success.</p> <p>Ownership of CSR shares is encouraged through the use of equity as the vehicle for the Long Term Incentive (LTI) plan and the ability to forgo part of fixed remuneration to acquire shares.</p>
Market competitive remuneration	<p>Remuneration, including those elements which can be earned subject to performance, is set at competitive levels that will attract, motivate and retain high quality executives.</p>

We encourage our people to own a stake in CSR to align their interests with those of our shareholders. The Employee Share Acquisition Plan (ESAP) allows employees to forgo up to \$5,000 of their cash remuneration to acquire shares in the company.

Under the Universal Share Ownership Plan (USOP), eligible staff can buy shares which are then matched one-for-one by the company at no additional cost up to a maximum value of \$1,000. In total, 41% of employees own shares in CSR.

CSR renewed support for its CSR Values Champions and Managing Director Award recognition schemes where employees can be nominated for a CSR award and attend a celebration for outstanding performance in each of the five CSR Values. In addition, the CSR Recognition Awards provide local celebration of achievements made by our people.

## Diversity

CSR strives to ensure diversity within the organisation. CSR's policy on diversity is contained within the Fairness, Respect & Diversity Policy. A summary of this policy is available on CSR's internet site in the "careers" section under "our people". CSR recognises that improving diversity is important to improving and sustaining a workforce capable of generating better relationships and more innovative solutions for its customers. Ultimately, this improves the results of CSR.

CSR has adopted the ASX CGC's revised Principles and Recommendations (including the 2010 amendments) in respect of diversity. CSR recognises that improving diversity requires cultural change driven by the leadership and commitment of the board and senior management. The culture change themes have been used by CSR to structure its measurable objectives.

At board level, two of the six non-executive directors are women. 10% of employees in management positions including the Company Secretary, General Manager Investor Relations & Corporate Communications, Group Treasurer and the Group Financial Controller and 32% of professionals are women. Overall, 15% of the CSR workforce are women.

## Our people (continued)

### Diversity (continued)

While the female participation rate is a low proportion, it is consistent with the industry sectors in which CSR operates. A number of initiatives are underway to attract more females to the company including targeted advertising and flexible work arrangements.

To ensure CSR is identifying issues for employees in the workplace, the following seven consultation approaches were undertaken during the year:

1. **Diversity Project Team** a team led by the General Manager, Human Resources, who compiled base line data which identified issues for women in our workplace, and evaluated some of the issues that were raised from this data. This data has been reviewed by the CSR board and the executive management team and forms the basis of our reportable objectives so that CSR continues to fully comply with the Equal Opportunity for Women in the Workplace Act 1999.
2. **Code of Business Conduct and Ethics (CBC&E)**  
The underlying principle of CSR's CBC&E, endorsed by the CSR board, is that ethical behaviour is required of directors, executives and all other employees, as well as advisers, consultants and contractors and to act within the law, avoid conflicts of interest and act honestly in all business activities.
3. **Performance and Development Review** is a six monthly review which primarily evaluates an employee's performance against key measurable accountabilities. This review also involves a mandatory discussion regarding workplace engagement, which provides a confidential forum for raising issues.
4. **Employee Assistance Program** an external partnership with Access Programs that provide private and confidential counselling services to CSR staff members and their immediate family. A quarterly report containing censored general feedback on appropriate issues raised is provided by Access Programs.
5. **Informal discussions** occur regularly between employees and their managers, HR representative/manager.
6. **Online Security Incident Registry** is an online security incident registry on CSR's intranet, which allows staff members to confidentially report incidents.
7. **Independent Confidential Hotline** allows staff members to confidentially report issues. The Confidential Line is a mobile telephone permanently diverted to message bank. It has been introduced to allow a method of reporting suspect issues or behaviour where the person making the report is uncomfortable with face to face contact. All information relayed will be evaluated and where possible investigated to a satisfactory conclusion.

### Engagement, Leadership and Development



At CSR we maintain a commitment to our employees to ensure a safe and rewarding workplace and one which also encourages their personal development.

This commitment has been reinforced with Project Blueprint, our improvement process to drive our culture for our people and their customers.

Project Blueprint gives CSR employees an opportunity to give feedback about how we work together. Employees were initially surveyed in 2010 using the Organisational Cultural Inventory (OCI) research tool and from this process we received valuable feedback and insights from our employees on how to make CSR a better place to work.

Action plans were put in place to increase workplace safety, product quality and customer service improvement initiatives. Communication has been improved with regular shift-start meetings and the reintroduction of the CSR staff magazine, InFocus.

In August 2012, the second round of measuring our culture with 68% (up from 50% in 2010) of CSR employees completing the Blueprint survey. The new survey confirmed that CSR is making positive progress in improving culture and engagement towards more constructive "blue" behaviours and increased the scores in this area by 16% with a reduction in defensive "red" and "green" behaviours by 9%.

### Training and development

Through CSR's training portal "Trainme" employees have the opportunity to participate in a wide range of training courses covering the following categories: Information technology, customer service, influence (such as business writing skills), leadership & team development, professional development, workplace health, safety & environment, sales, and CSR's core induction program, which covers trade practices, code of conduct, chain of responsibility, fairness, respect & diversity and managing safety.



Following feedback from Project Blueprint, CSR has partnered with Melbourne Business School – Mt Eliza to develop two new leadership programs, CSR Leaders and Emerging Leaders Programs which provide an intensive leadership and development program to high potential employees within CSR.



# Workplace Health, Safety & Environment

CSR places the same emphasis and importance on managing WHSE as any other business imperative. It is one of our business values – that we care for and protect each other, our business and our environment.

## Workplace Health & Safety

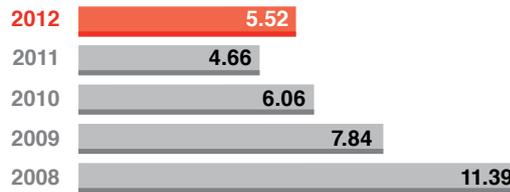
**CSR'S RECORDABLE INJURY RATE HAS IMPROVED**  
**14%** ↓

**CSR'S LOST TIME INJURY SEVERITY RATE HAS IMPROVED**  
**10%** ↓

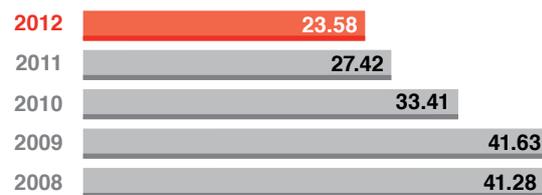
### Highlights

- CSR's safety record continued to improve on previous years with the number of recordable injuries (lost time, restricted work and medical treatment injuries) per million work hours decreasing by 14%, with the reduction in the total number of recordable injuries reduced by 16%
- While the lost time injury frequency rate increased for the period ending 30 June 2012, there was a significant improvement in the last five months when this calculation improved to 4.35 as of 30 November 2012
- This was driven by significant improvement in Viridian Primary Products (44%), Viridian Glass Processing & Services (7%) and Lightweight Systems (7%)
- The lost time injury severity rate (shifts lost per million work hours) improved 10 per cent
- There were no fatalities at CSR during the year – the last fatality at CSR was in 2002

### Lost time injury frequency rate AS AT 30 JUNE (PER MILLION WORK HOURS)



### Total recordable injury frequency rate AS AT 30 JUNE (PER MILLION WORK HOURS)



## Workplace Health, Safety & Environment (continued)

### Managing Safety

While CSR's safety record continues to improve year on year, there is considerable work still required to achieve our ambition of zero harm across all our operations. CSR management is held accountable for safety performance and all employees are expected to take personal responsibility and be involved in setting and complying with our standards and instigating improvement initiatives.

CSR will continue the drive to achieve zero harm and in respect to workplace health, safety, work towards fulfilling our policy objective across all of our operating sites and work locations by:

- Complying with the laws, regulations and CSR operational policies and standards
- Establishing measurable WHSE objectives and targets, recognise and celebrate their achievement
- Identifying, assessing and controlling hazards and impacts, and eliminate or reduce the risk to an acceptable level
- Informing employees, contractors, visitors and the public of these hazards and impacts that may cause potential harm to them; our business and/or our environment
- Identifying, implementing, monitoring and reinforcing the safe behaviours we expect in our business to eliminate unsafe acts and practices
- Providing appropriate workplace health, safety and environmental training to employees and contractors
- Investigating incidents and sharing lessons learned with applicable stakeholders to prevent re-occurrences
- Consulting and communicating with employees and contractors to continually improve the work health, safety and environmental performance in our workplaces

The CSR WHSE System provides the framework for management of workplace health and safety and environment at CSR, by clearly setting out the standards we require our people to meet. Managers and supervisors are required to provide leadership in relation to workplace health and safety by:

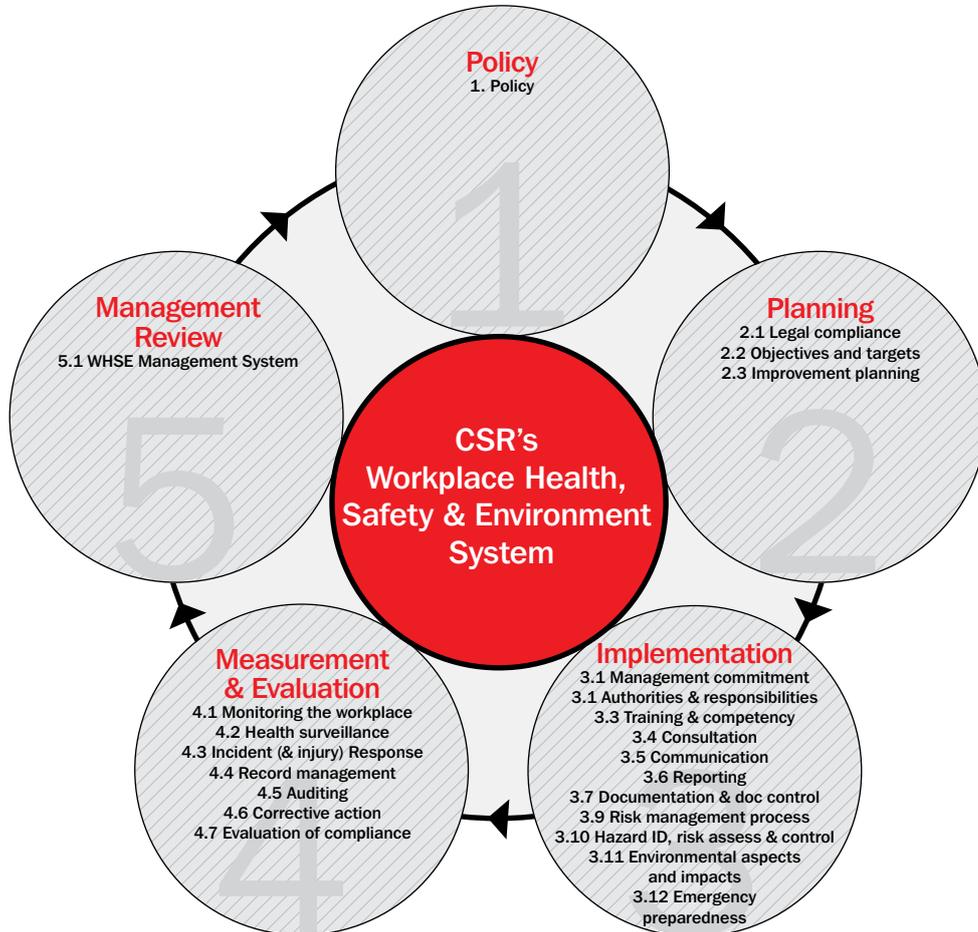
- Effectively implementing the requirements of the standards
- Developing and sustaining a strong culture of working safely and continuous improvement
- Setting stretch improvement goals
- Allocating sufficient resources to achieve the goals

The CSR WHSE Management Standards are divided into the sections shown below to incorporate the continuous improvement cycle common to management standards for Safety (AS/NZ 4801 & OHSAS 18001), Quality (ISO 9001) and Environment (ISO 14001).

## Workplace Health, Safety & Environment (continued)

There are three primary drivers behind CSR's WHSE Management System;

1. Protect the health and safety of people by providing a safe place of work and safe systems of work and protect the environment
2. Operate within the law and meet corporate objectives
3. Ensure people know their WHSE responsibilities and how they are to be met



### The five sections of the CSR WHSE Management System are:

#### 1. Commitment and Policy

CSR's WHSE Policy Commitments demonstrate the commitment to improving the workplace, health, safety and environmental performance at CSR. These policy commitments form the basis of our personal responsibilities and accountabilities at each level of the organisation.

#### 2. Planning

To ensure that it is effective, the planning process at each level of the business takes into consideration:

- Identification, access and communication of legal and company requirements
- Setting challenging improvement targets and objectives, developing and maintaining WHSE improvement plans with clearly defined actions, allocation of responsibilities and completion dates

Plans are developed annually in line with the five year strategy of the business, including agreed objectives and targets. These objectives and targets are reviewed quarterly and tracked in monthly reports.

#### 3. Implementation

Effective implementation will ensure that health, safety, and environment focus is maintained on critical activities ensuring:

- Responsibilities and accountabilities are in place and understood at each level of the business, in line with our WHSE Policy statement commitments
- Our people are training to complete the tasks associated with their jobs competently
- Effective communication and consultation mechanisms are in place
- Reporting of business activities is in place including the tracking of key indicators and initiatives
- Effective identification, assessment and control of workplace health, safety and environmental hazards and their associated risk
- Control of documentation to maintain its relevance and regular review
- Emergency situations are identified and controlled appropriately

## Workplace Health, Safety & Environment (continued)

For the year ending 30 June 2012, CSR conducted the following:



### 3. Implementation (continued)

A suite of leading indicators are tracked on a monthly basis at all levels of the business to continually review and focus in on this implementation. These include:

- Number of monthly meetings conducted (actual v planned) – communication/consultation
- Number of toolbox sessions undertaken (actual v planned) – communication/consultation
- Safety walks conducted in the workplace (actual v planned) – behavioural intervention
- Task observations (review of tasks in line with work instructions) – behavioural intervention
- Workplace inspections (actual v planned) – hazard identification
- Tracking of hazards reported and closed out – risk management
- Tracking of corrective actions from incidents – incident management

Safety performance is one of the key criteria in determining short term incentives of management across business units. Managers are responsible for leading safety in the workplace and actively demonstrating commitment as safety role models, by undertaking a series of activities on a regular basis.

### 4. Monitor and Measure

By measuring, monitoring and evaluating WHSE performance, business units are able to take preventative or corrective action to improve performance, including:

- Health assessment and management of appropriate records. CSR is increasingly focusing on the fitness and wellbeing of its workforce. As part of this commitment, CSR sponsored its employees to participate in the Global Corporate Challenge – the world's largest corporate health and wellbeing initiative that combines exercise, fun and virtual interactive experiences. In 2012, CSR entered 89 teams in the challenge representing 623 employees across the company for the third consecutive year
- Auditing of our systems and tracking of actions to address non compliance identified. External auditors inspect CSR operations on a cyclic basis to ensure compliance with the WHSE Standards, to identify any systemic deficiencies and compliance issues, with 51 site based audits conducted in the past year. Recommendations from these audits are reviewed, actions developed, assigned to applicable personnel, time framed and monitored to completion
- Injury/incident reporting, recording, investigation and corrective actions – to find out what caused the incident and provide an insight to what trends are commonly occurring and need to be addressed

## Workplace Health, Safety & Environment (continued)

### 5. Management Review

All parts of CSR are required to undertake regular reviews of performance to improve the WHSE management system as part of continuously improving WHSE performance.

CSR constantly reviews its health and safety performance to ensure it continues to improve across the business, including performance against leading and lagging indicators. Additionally, reviews of management system audit outcomes to ensure compliance standards are maintained.

CSR safety and environment performance is afforded the highest priority through formal reporting to the board WHSE committee. It is the policy of the board that a majority of the members of this committee be independent directors, and that the committee is chaired by an independent director. The committee receives regular reports from management and regularly visits and inspects sites.

The committee reviews the adequacy of management systems and performance, ensures that appropriate improvement targets and benchmarks are in operation and monitors potential liabilities, changes in legislation, community expectations, research findings and technological changes.

Performance is measured in line with both lead and lag indicators and monthly data is then consolidated quarterly to form the basis of reporting to the board WHSE committee. Remedial actions are instigated to ensure targets are kept on track when performance to target falls below the expected requirement. This ensures we continually improve our processes and systems.

Monthly reviews of business performance are conducted, with actual performance measured against the agreed annual targets. Reports are reviewed monthly by the senior leadership team of the business, as well as by the divisional, business unit and site leadership teams.



### Viridian sharing safety knowledge with local students

Viridian's glass site at Jandakot, WA is sharing its knowledge on workplace safety with local students through a program with Edith Cowan University. Occupational health and safety (OHS) students from the university participated in an extensive site tour and safety analysis of the site. As part of the tour, the students were able to meet with site managers to discuss safety initiatives and implementing OSH practices in the workplace. This program provides students practical examples of safety procedures in the workplace to apply to their OHS university studies.



# Environment

At CSR, our policy is to act responsibly, ensuring that our people follow appropriate procedures to minimise the company's impact on the environment, and where possible contribute to its improvement.

## Environment

We are continuing to make investments to ensure our businesses remain compliant with their operating licences and reduce their impact on neighbouring communities.

CSR has an active program to reduce its impact on the environment which is overseen by the board and the Workplace Health, Safety & Environment Committee. Each business in CSR is committed to a plan which commits site management to:

- Comply with government environmental regulations
- Identify and address key environmental risks
- Improve environmental awareness of employees and contractors
- Reduce greenhouse gas emissions and use of resources

We have renewed our commitment to minimise the impact on our environment with specific targets to reduce greenhouse gas emissions and waste production and the consumption of energy and water used in production.

By 2020, CSR is targeting a 20 per cent reduction in the following categories using 2009/10 as the base year:

- Scope 1 and scope 2 greenhouse gas emissions through a reduction in carbon dioxide equivalent per tonne of saleable product
- Energy consumption per tonne of saleable product
- Potable water use per tonne of saleable product
- Waste production disposed at landfill per tonne of saleable product

Each CSR business sets goals to reduce their indicators over time and these are regularly reviewed by senior management and the WHSE board committee.

We continue to comply with the requirements of the various regulatory programs and jurisdictions where we operate. We remain committed to providing transparent and accurate reporting on how our operating activities impact the environment.

We provide information through a number of channels:

- Annual reporting as part of site licensing activities
- Emissions data to the National Pollutant Inventory
- Reports to various state Government departments' programs on energy and water savings
- Continuing our voluntary participation in the Carbon Disclosure Project

CSR also continues its involvement with the Federal Government's National Greenhouse and Energy Reporting scheme and the Energy Efficiency Opportunities program.

In addition, CSR has begun life cycle assessments (LCA) of a number of products including Hebel panels, Gyprock plasterboard and Bradford insulation. The LCA assessment tool enables us to analyse the "cradle to grave" environmental impact of our products.

## Environment (continued)

### Environmental Incidents

CSR's goal remains zero environmental incidents.

We report environmental incidents based on five levels of breaches of compliance with regulatory and CSR requirements.

Level 1 – Minor

Level 2 – Significant

Level 3 – Serious

Level 4 – Severe

Level 5 – Extreme/catastrophic.

For the year ending 30 June 2012, CSR incurred 92 environmental incidents (compared to 71 incidents in the previous year).

The environmental incidents were categorised as follows:

- Level 1: 70
- Level 2: 17
- Level 3: 5

There were no level 4 or 5.

The increase in environmental incidents is partly linked to improved reporting standards across all of CSR's businesses following the implementation of its updated Environmental Management System (EMS) last year. This system forms the basis for management processes and their implementation throughout the CSR business.

The EMS reflects the structure adopted by Australian/New Zealand and international standards for environmental management and incorporate the continuous improvement cycle advocated by these standards.

There are three primary drivers behind the establishment and implementation of CSR's Environmental Management System:

#### 1. Protect the environment

– Environmental impacts are avoided or minimised

– A structured approach is provided to manage environmental issues, ensuring they are well understood and mitigated effectively

#### 2. Operate within the law and meet corporate objectives

To be clear about the legislative requirements in the jurisdictions in which it operates, CSR has arranged for all Acts, Regulations, Codes of Practice, Standards and Guidance notes and publications to be reviewed and the requirements imposed by governments and regulators to be drawn together and summarised in over 140 issue based guides. CSR corporate objectives provide direction and intent of the company. If corporate objectives are set, they must be met by all sites.

#### 3. Ensure CSR people know their responsibilities and how they are to be met

To establish confidence that CSR people have implemented and/or are working to specified requirements, CSR conducts internal and external audits of CSR operations/sites. External audits are independent and undertaken on a rolling three year cycle. Internal audits are undertaken by CSR staff (in general) and specifically to examine compliance with legal responsibilities.



# Environment – Energy

CSR seeks to minimise the impact of greenhouse gas emissions by improving energy efficiency across its network of manufacturing facilities.

## Energy

**GREENHOUSE GAS EMISSIONS REDUCED**

**6%** ↓

For the period 1 July 2011 to 30 June 2012, total greenhouse gas emissions from CSR's majority owned businesses were 644,959 tonnes of CO<sub>2</sub>-e – a reduction of 6% on the previous year.

The reduction reflected deteriorating market conditions in construction markets and CSR's associated reduced levels of production to align production with demand.

However, the reduction also reflects CSR's continued focus on introducing initiatives to reduce energy consumption and GHG emissions across its various manufacturing facilities.

Scope 1 (direct) tonnes of CO<sub>2</sub>-e in Australia for the period were 361,805 tonnes, a reduction of 5% on the prior year. For the same period, the scope 1 (direct) greenhouse gas emissions of CSR's majority-owned businesses operating in New Zealand were 8,203 – down from 12,150 tonnes last year.

Direct or scope 1 emissions are emitted from sources within the plant or factory boundary.

Scope 2 (indirect) tonnes of CO<sub>2</sub>-e emitted in Australia were 273,915 tonnes – a reduction of 5%.

For the same period, the scope 2 (indirect) greenhouse gas emissions of CSR's majority-owned businesses operating in New Zealand were 1,036 tonnes compared to 4,087 tonnes in the prior year.

Indirect or scope 2 emissions are associated with the consumption of imported electricity, heat or steam.

CSR engaged Deloitte Touche Tohmatsu to provide reasonable assurance over CSR Limited's total scope 1 and 2 greenhouse gas emissions, energy consumed and energy produced for Australia prepared in accordance with the National Greenhouse and Energy Reporting (NGER) Act 2007.

A copy of the unqualified assurance statement is available to download in the Reasonable Assurance Report.

CSR also discloses its greenhouse gas emissions to the Carbon Disclosure Project, which also requires CSR to report on the management of risks and opportunities of climate change impact our businesses.

### Scope 1 direct emissions ^ AS AT 30 JUNE (TONNES OF CO<sub>2</sub>-e)

Australia	
2012	361,805
2011	382,248
2010	435,759

Outside Australia	
2012	8,203
2011	12,150
2010	8,896

### Scope 2 indirect emissions ^ AS AT 30 JUNE (TONNES OF CO<sub>2</sub>-e)

Australia	
2012	273,915
2011	288,239
2010	295,052

Outside Australia	
2012	1,036
2011	4,087
2010	4,069

^ Data excludes contractor emissions

## Environment – Energy (continued)

### Energy Efficiency Opportunities

CSR continues to be a participant in the Federal Government’s Energy Efficiency Opportunities Program and is required to report on assessments undertaken under the program. In CSR’s case, one assessment was undertaken within the 2011-2012 reporting period. CSR’s Energy Efficient Opportunities public report template can be found at the end of this report.

CSR has launched a number of initiatives to improve operational performance and efficiency with over 200 energy reduction initiatives underway across our sites.



#### Viridian reducing energy use

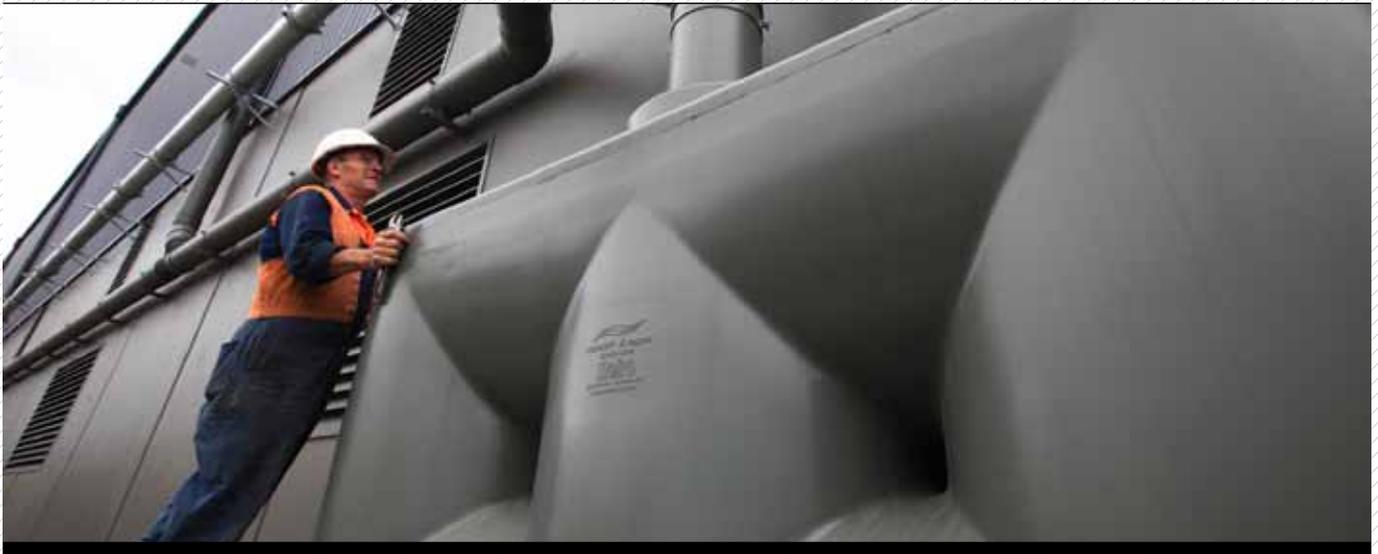
The Viridian glass manufacturing facility at Ingleburn, NSW has installed a control system to regulate the use of fans which control humidity and temperature during glass production. The project received \$23,500 in certificates from the NSW Energy Savings Scheme (ESS) and is saving 340 megawatt hours of electricity per year which reduces carbon emissions by 363 tonnes annually.



#### CSR received \$1.6 million from the Clean Technology Investment Program for energy reduction initiatives

CSR has received over \$1.6 million in grants from the Government’s Clean Technology Investment Program for three projects which will reduce carbon emissions and improve energy efficiency.

- **Bradford insulation at Ingleburn, NSW** currently uses a gas-fired stack burner to heat moist process gases in the exhaust stack. With the \$1.0 million grant, CSR will install a gas-fired cogeneration system to generate electricity for the glass furnace from which exhaust gases to heat process gases in the exhaust stack and waste heat will be used to pre-heat the curing oven. This will reduce gas consumption for the stack burner and curing oven. This project will reduce CSR’s carbon emissions intensity by an estimated 18% over the life of the conservation measure
- **Monier roof tile plant at Vermont, Victoria** has received \$250,000 to install a high temperature off-take on the kiln and utilise the waste heat to feed the tunnel dryer. This will eliminate the need for some of the burners on the tunnel dryer and reduce gas consumption of the company’s roof tile manufacturing facility reducing emissions by an estimated 20%
- **Gyprock plasterboard factory at Coopers Plains, Queensland** has received a grant of \$67,000 for a lighting project to replace existing 400W metal halide lights with new energy efficient 250W induction lights. Lighting generally accounts for about 6-8% of the energy bill from a warehouse or factory and by installing high-efficiency lighting can save between 30-60% of lighting costs. At Coopers Plains, CSR is matching the grant with an additional \$130,000 in funding for the lighting project which will reduce the carbon emissions and energy intensity of its lighting systems by an estimated 36%
- **Gyprock plasterboard factory at Wetherill Park, NSW** has received a grant of \$67,000 for a lighting project to replace 635 new energy efficient 250W induction lights which will reduce the carbon emissions and energy intensity of its lighting systems by an estimated 21.5% and result in savings of \$125,000 in energy costs per year
- **Gyprock plasterboard factory at Wetherill Park, NSW** has received \$37,940 to upgrade the dryer end seals and install gas metering equipment in the plasterboard dryer which will reduce gas consumption by 2%
- **Cemintel factory at Wetherill Park, NSW** has received a grant of \$64,299 for a lighting project to replace 265 new energy efficient 250W induction lights which will reduce the carbon emissions intensity of the manufacturing process by an estimated 2.8% and result in savings of \$36,000 in energy costs per year



# Environment – Water

CSR recognises the requirement to use water efficiently. Our storm water and groundwater management, together with the treatment and disposal of water used at our manufacturing facilities, is central to our on-site environmental plans.

## Water

**CSR WATER CONSUMPTION DECREASED BY 13%** ↓

CSR consumed 881,732 kilolitres of potable water during the year ended 30 June 2012 – a decrease of 13% from the prior year.

The bulk of water consumption continues to be in the Lightweight Systems division which comprised 71% of the total.

Bricks and Roofing accounted for 11% and Viridian comprised 18%.

The decrease in water consumption in Lightweight Systems is largely due to the sale of the Malaysian autoclaved aerated concrete (AAC) business in December 2010. The data reported for the 2011 period has been restated following a review of data reporting to ensure consistency with the 2012 period.

CSR businesses have continued to implement water saving measures across manufacturing sites to reduce consumption.



### Viridian using monitoring systems to reduce water use

Viridian’s glass facility at Clayton in Victoria has dramatically reduced its water use through installation of the Hydroshare water monitoring systems. The online system gives operators visibility of water usage throughout the day from individual machinery from incoming meters. In late 2010, South East Water

in Victoria provided a \$5,000 grant to assist with installation of the new meters. The improved monitoring system identified a number of areas of water leakage, faulty valves and necessary equipment maintenance which resulted in weekly water usage reduced from 1 million litres per week to less than 300,000 litres – a reduction of over 70%.

## Water consumed by business

### Lightweight Systems AS AT 30 JUNE (KILOLITRES)

2012	630,176
2011	705,739
2010	693,376

### Viridian AS AT 30 JUNE (KILOLITRES)

2012	155,717
2011	209,243
2010	233,178

### Bricks and Roofing AS AT 30 JUNE (KILOLITRES)

2012	95,839
2011	103,362
2010	99,834

### Total water consumed<sup>^</sup> AS AT 30 JUNE (KILOLITRES)

2012	881,732
2011	1,018,194
2010	1,016,388

<sup>^</sup> Only metered water data is included



# Environment – Waste

Reducing waste remains a key priority across all of our businesses.

## Waste

**CSR WASTE PRODUCTION INCREASED BY**

**1%**



CSR produced a total of 37,204 tonnes of solid waste in the year ended 30 June 2012 – an increase of 1% on the prior year.

The majority of waste is produced by Bricks and Roofing with 43%, Lightweight Systems 37% and 21% by Viridian.

The increase in waste in Bricks and Roofing was due mostly to a programme to rationalise inventory which resulted in a one-off material increase in waste being sent to landfill.

The decrease in waste production in Lightweight Systems is largely due to the sale of the Malaysian autoclaved aerated concrete (AAC) business in December 2010.

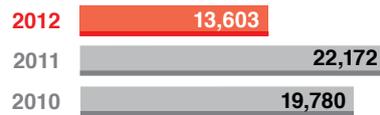


### Monier reducing waste

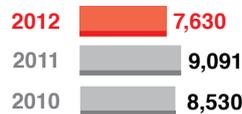
The Monier concrete rooftile site at Rosehill, NSW launched a project to improve controls to measure raw material usage and improve product consistency. Raw materials comprise over 40% of the production cost of rooftiles. By improving control measures and using statistical tools to assess the production process, product quality and consistency has improved while reducing the amount of waste material. As a result raw material usage is expected to reduce by up to 5% with the new monitoring system.

## Waste produced by business

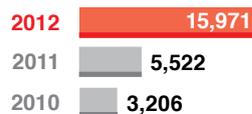
### Lightweight Systems AS AT 30 JUNE (TONNES)



### Viridian AS AT 30 JUNE (TONNES)



### Bricks and Roofing AS AT 30 JUNE (TONNES)



### Total solid waste produced# AS AT 30 JUNE (TONNES)



^ Solid waste does not include waste taken off-site for recycling/re-use

### Gyprock reducing waste delivered to landfill

Gyprock plasterboard across New South Wales has launched an innovative project to reduce waste going into landfill. A number of suppliers deliver to CSR's sites in non standard pallets which are not reusable and therefore are disposed as waste in local landfills. CSR developed a partnership with its pallet supplier to recycle the waste pallets into woodchip material which is used as a soil conditioner by landscaping companies. This new system of recycling has significantly reduced Gyprock's waste disposal at landfill.



# Community

CSR continues to engage with the local communities in which we operate.

## Our partnerships

**OVER NINE YEARS, CSR AND EMPLOYEES HAVE DONATED \$2.4m**

We continue to partner with a number of organisations in line with our commitment to operate in a sustainable manner to gain the confidence of the communities in which we operate. A core component of our community involvement is the CSR Community Support program, under which CSR matches employee contributions dollar for dollar to a range of charitable organisations.

CSR launched the Community Support Program nine years ago and during that time CSR and its employees have donated \$2.4 million to charity. In the year to 30 June 2012, CSR and its employees donated \$80,870 to a range of charitable organisations. The following three charities are members of CSR's Community Support Program.



**The Salvation Army** is a national charity, offering caring support for every problem "from the cradle to the grave." Their services are as wide-ranging and diverse as the areas of need in the community. They offer services to aged care, crisis accommodation, suicide

prevention, youth and families at risk, telephone counselling, to name just a few.



**Youth Off The Streets** is a youth-specific charity, assisting young people dealing with issues of substance and other abuse, alienation from family and community and homelessness. Youth Off The Streets offers a continuum of care from assistance

on the streets; crisis and short term accommodation to long term residential care, treatment and secondary schooling.



**Assistance Dogs Australia** is a national charity which trains Labradors and Golden Retrievers to help people with physical disabilities. They currently have over 90 dogs around Australia, with over 50 dogs currently in training. The charity requires significant

funding to achieve its goal of placing at least 30 dogs per year with recipients.

## Working in the community

CSR works with the Australian Business and Community Network (ABCN), a partnership of highly committed national business leaders and companies working on mentoring and coaching programs in schools in high needs areas. For the year up to 30 June 2012, 108 employees have volunteered 621 hours.

With the assistance of CSR mentors, reading programs were launched at a number of primary schools close to CSR's operating manufacturing facilities in New South Wales, Queensland and Victoria. CSR volunteers partner with the school students weekly for one or two terms to offer one-on-one reading and support at school.

### The 'Spark' program

The Spark program is designed to address literacy challenges faced by students in primary school. Whilst the focus of the program is on reading and comprehension, there is a critical element of socialisation whereby reading mentors act as positive role models to students. The weekly one-to-one sessions offer an opportunity to introduce sustained adult conversations in English, encourage the student personally and offer an additional role model in their lives.



## Community (continued)



In New South Wales and Victoria, CSR hosts site visits and career choice days for school students from a range of high schools. A number of our employees in New South Wales, Victoria, Queensland and Western Australia have also volunteered their time to mentor year 9, 10 and 11 students through ABCN's facilitated sessions. One program

focuses on career paths for year 11 students, which assists students in determining their pathways beyond high school. The other program focuses on year 9 and 10 students offering them opportunities to meet people working outside their immediate community and to consider wider vocational and education options, a channel which would not normally be open to them due to their limited social networks and financial restrictions.



Over the past 12 months CSR employees have also volunteered their time at two schools in New South Wales to help build a vegetable garden and mulch beds.



CSR supports the Asbestos Diseases Research Institute's tissue biobank study. The building of a comprehensive nationwide tissue biobank of considerable size incorporating serum, plasma, DNA, RNA and tumour tissue will permit the construction of a comprehensive catalogue of genomic abnormalities associated with mesothelioma in both tumour and control tissue, which will help researchers better understand the biology of the disease in an effort to try and achieve better clinical outcomes. Information on the tissue bank (which will be very high quality and quite rare) will be made available to the international research community.

The resources needed to establish the tissue bank are considerable and include the initial equipment, as well as access to trained nursing staff on site around the country to be ready to collect samples from mesothelioma sufferers.



# Glossary

AccuRate	Residential energy rating software
ASX	Australian Securities Exchange
CGC	Corporate Governance Council
Bricks and Roofing	Bricks and Roofing – includes CSR’s building product brands – PGH™ bricks and pavers Monier™ and Wunderlich™ rooftiles
Carbon dioxide equivalent (CO <sub>2</sub> -e)	Unit for comparing the radiative forcing of a greenhouse gas to carbon dioxide. It is calculated using the mass of a given greenhouse gas multiplied by its global warming potential
CSIRO	Commonwealth Scientific and Industrial Research Organisation
ESAP	Employee Share Acquisition Plan
FTE	Full Time Equivalent
GAF	Gove Aluminium Finance
GRI	Global Reporting Initiative – guidelines for sustainability reporting
ISO 9000	International Organisation for Standardisation. ISO 9000 family of standards that address quality management systems
ISO 14001	International Organisation for Standardisation. Standard which outlines Environment Management Systems requirements with guidance for use
Lightweight Systems	Lightweight Systems’ – includes CSR’s building product brands – Bradford™ insulation, Hebel® panels, Edmonds™ ventilation, Gyprock™ plasterboard, Cemintel™ fibre cement
LTI	Long Term Incentive
LTIFR	Lost Time Injury Frequency Rate – per million hours worked
NatHERS	The Nationwide House Energy Rating Scheme
NGER	National Greenhouse and Energy Reporting scheme
STI	Short Term Incentive
Viridian™	Viridian glass business
WHSE	Workplace Health, Safety and Environment
USOP	Universal Share Ownership Plan
TRIFR	Total Recordable Injury Frequency Rate – per million hours worked



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The Directors  
 CSR Limited  
 Triniti 3, 39 Delhi Road  
 North Ryde, NSW 2113

26 October 2012

Dear Directors,

**Re: Reasonable assurance engagement report on CSR Limited ('CSR')'s compliance with Section 19 of the National Greenhouse and Energy Reporting Act 2007 ('NGER Act') for the financial year ended 30 June 2012 to the Directors of CSR Limited**

Please find herewith our reasonable assurance report and detailed findings in respect of CSR Limited ('CSR') as reported in the 2012 NGER Report in accordance with the NGER Audit Determination 2009 and the guidance contained in the NGER Audit Determination Handbook.

**Audited Body**

<i>Name of audited body:</i>	CSR Limited	
<i>Audited body contact details:</i>	<i>Audited body contact</i>	Ms Linden Birch, Group Sustainability Manager
	<i>Phone number</i>	(02) 9235 8358
	<i>Address</i>	Triniti 3, 39 Delhi Road North Ryde, NSW 2113

**Audit description**

<i>Kind of Audit:</i>	Reasonable assurance
<i>Audit Objective:</i>	To provide reasonable assurance on CSR Limited's 2012 NGER Report
<i>Time period audited:</i>	1 July 2011 to 30 June 2012
<i>Date terms of engagement signed:</i>	19 June 2012
<i>Date Audit report Signed:</i>	26 October 2012

**Auditor details**

<i>Auditor Details</i>	<i>Name of Auditor:</i>	B J Pollock
	<i>Organisation:</i>	Deloitte Touche Tohmatsu
	<i>Phone number:</i>	(02) 9322 7458
	<i>Address:</i>	Grosvenor Place 225 George Street Sydney NSW 2000
<i>Names and contact details</i>	Paul Dobson (02) 9322 7000	

Liability limited by a scheme approved under Professional Standards Legislation.

Member of Deloitte Touche Tohmatsu Limited.



<i>of audit team and other persons working with the audit team leader</i>	Shailesh Tyagi (02) 9322 7000 Gloria Karaiskos (03) 9671 7000 Jennifer Foo (02) 9322 7000 Rochel Hoffman (02) 9322 7000
<i>Details of exemptions under section 6.71 of the NGER Regulations for the audit team leader or professional member of the audit team and, if so, details of the procedures for managing conflict of interest</i>	
Not applicable.	

Should you have any questions with the above please contact me on (02) 9322 7458 or at [bpollock@deloitte.com.au](mailto:bpollock@deloitte.com.au)

Yours sincerely

B J Pollock  
Partner



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**Reasonable assurance engagement report on CSR Limited's compliance with Section 19 of the National Greenhouse and Energy Reporting Act 2007 for the financial year ended 30 June 2012 to the Directors of CSR Limited**

**Part A – Auditor's conclusion**

We have conducted an audit to provide reasonable assurance regarding the compliance of CSR Limited ('CSR') as reported in the CSR Limited 2012 NGER Report with Section 19 of the National Greenhouse and Energy Reporting Act 2007 ('NGER Report' or 'matter being audited'). The NGER Report consists of the following:

- greenhouse gas emissions (tonnes of CO<sub>2</sub>-e)
- energy production
- energy consumption

For the period 1 July 2011 to 30 June 2012

**Management's responsibility**

Management of CSR are responsible for preparation of the NGER Report in accordance with Section 19 of the NGER Act in all material respects. CSR has developed basis of preparation documentation which details how CSR has interpreted and applied the requirements of the NGER Act, which for the purposes of our engagement represents the criteria.

**Auditor's responsibility**

Our responsibility is to express a reasonable assurance opinion on CSR's compliance with Section 19 of the NGER Act for the period 1 July 2011 to 30 June 2012, in all material respects. The procedures selected depend on our judgment, including an assessment of the risks of material misstatement or material non-compliance of the matter being audited. We conducted our engagement in accordance with the National Greenhouse and Energy Reporting (Audit) Determination 2009 (the 'Audit Determination').

We read other information included within the NGER Report and considered whether it was consistent with the knowledge obtained through our procedures. We considered the implications for our report if we became aware of any apparent material inconsistencies with the matter being audited. Our responsibilities did not extend to any other information.

An assurance engagement involves performing procedures to obtain assurance evidence about the matter being audited. The procedures selected depend on the audit team leader's judgement, including the assessment of the risks of material misstatement or material non-compliance of the matter being audited, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to CSR's compliance with the NGER Act in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of CSR's internal control. An assurance engagement also includes evaluating the reasonableness of emissions estimates made by management of the company, as well as evaluating the overall presentation of the NGER Report.

Reasonable assurance means a high but not absolute level of assurance. Absolute assurance is very rarely attainable as a result of factors such as the following: the use of selective testing, the inherent limitations of internal control, the fact that much of the evidence available to us is persuasive rather than conclusive and the use of judgement in gathering and evaluating evidence and forming conclusions based on that evidence.

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Member of Deloitte Touche Tohmatsu Limited.



We believe that the assurance evidence we have obtained is sufficient and appropriate to provide a basis for our assurance conclusion.

As audit team leader, I attest that the assurance engagement was carried out in accordance with the assurance engagement terms, the requirements of the NGER Regulations and the Audit Determination.

#### **Use of our reasonable assurance engagement report**

This report has been prepared for the Directors of CSR Limited for the sole purpose of reporting on the matter being audited in accordance with the NGER Act. We understand that a copy will be provided to the Clean Energy Regulator ('CER') for the purpose of reviewing CSR's NGER compliance. We agree that a copy of the report may be provided to the CER for this purpose.

We disclaim any assumption of responsibility for any reliance on this report to any persons or users other than the Directors of CSR Limited, or for any purpose other than that for which it was prepared.

#### **Inherent limitations**

There are inherent limitations in performing assurance - for example, assurance engagements are based on selective testing of the information being examined - it is possible that fraud, error or non-compliance may occur and not be detected. An assurance engagement is not designed to detect all instances of non-compliance with the NGER Act, as an assurance engagement is not performed continuously throughout the year and the procedures performed in respect of compliance with the NGER Act are undertaken on a test basis. The conclusion expressed in this report has been formed on the above basis.

Additionally, non-financial data may be subject to more inherent limitations than financial data, given both its nature and the methods used for determining, calculating and sampling or estimating such data. We specifically note that CSR has used estimates or extrapolated underlying information to calculate certain amounts included within the greenhouse and energy information.

#### **Summary of procedures undertaken**

A reasonable assurance engagement involves performing assurance procedures to obtain evidence about the greenhouse gas emissions, energy production and energy consumption disclosures in the NGER Report. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the NGER Report, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the NGER Report in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control as it relates to the NGER Report.

#### **Our unqualified opinion**

In our opinion, CSR has reported greenhouse gas emissions, energy production and energy consumption in accordance with Section 19 of the NGER Act, in all material respects, for the period 1 July 2011 to 30 June 2012.

*Deloitte Touche Tohmatsu*

DELOITTE TOUCHE TOHMATSU

*BJ Pollock*

BJ Pollock  
Partner  
Sydney, 26 October 2012



**Re: Reasonable assurance engagement report on CSR Limited’s compliance with Section 19 of the National Greenhouse and Energy Reporting Act 2007 for the financial year ended 30 June 2012 to the Directors of CSR Limited**

**Part B – Detailed Findings**

In accordance with the NGER Audit Determination we report our key findings from our reasonable assurance engagement over CSR Limited’s NGER Report.

**Audit Findings and Conclusions Table**

The results that are provided in the table below should not be construed as providing an opinion on the matter being audited as a whole, instead they should be read in the context of providing evidence to support the conclusion.

<b>Issue/Risk area investigated</b>	<b>Testing conducted</b>	<b>Findings</b>	<b>Conclusion</b>	<b>Recommendations</b>
<p><i>Operational control/ corporate boundaries</i></p> <p>CSR is required to apply the NGER Act definition of operational control in order to determine which facilities, operations and activities should be reported in the 2012 NGER Report.</p>	<p>We reviewed the key judgements made by management and considered them in light of the NGER Act requirements.</p>	<p>From our assessment of CSR’s documented operational control judgments no material issues were identified.</p>	<p>Risk area has been appropriately addressed as part of our NGER assurance engagement.</p>	<p>Not applicable.</p>
<p><i>Industrial process emissions</i></p> <p>The nature of CSR’s operations means that for a number of facilities divisions, complex technical methodologies are required to calculate GHG emissions and energy sources from industrial process emissions at large facilities, including:</p>	<p>Our team, comprising assurance experts and greenhouse and energy technical experts assessed the technical measurement and calculation methodologies and calculations within the CSR NGER Report focusing on the most complex areas.</p>	<p>We have not identified any material errors or omissions in the CSR NGER report relating to industrial process emissions.</p> <p>During the course of the assurance engagement CSR Bricks business implemented a new approach for determining quantities of coal stone and coal slurry consumed based on purchases on opening and closing</p>	<p>Risk area has been appropriately addressed as part of the NGER assurance engagement.</p>	<p>CSR Bricks plant at Oxley should implement a monthly process for calculating coal stone and coal slurry consumption data for NGER purposes consistent using purchases and stock pile data.</p> <p>In addition CSR should enhance the robustness of the sampling and</p>



Issue/Risk area investigated	Testing conducted	Findings	Conclusion	Recommendations
<ul style="list-style-type: none"> <li>• Glass production</li> <li>• Brick manufacturing</li> <li>• Gyprock manufacturing, and</li> <li>• Insulation manufacturing</li> </ul>	<p>Our procedures included:</p> <ul style="list-style-type: none"> <li>• site visits to a sample of facilities to assess the completeness of emission and energy sources and the data capture and reporting processes</li> <li>• sample testing of material data streams to source documentation</li> <li>• assessment of technical methodologies and calculations at major facilities.</li> </ul>	<p>inventory which was performed at year end. In conducting our assurance procedures we also identified areas where the sampling and analysis of coal stone and coal slurry can be enhanced as set out in the Recommendations column.</p>		<p>analysis for coal stone and coal slurry by increasing sample frequency and ensuring analysis is performed on an as received basis.</p>
<p><i>Natural gas – completeness and accuracy of material emission stream</i></p> <p>Natural gas is CSR’s largest emission and energy source and is used across all divisions. Therefore it is important that the natural gas consumption data is complete and accurate and that emissions are calculated correctly.</p>	<p>Our team, comprising assurance experts and greenhouse and energy technical experts conducted site visits and walk through testing of managements’ identification of natural gas use at large facilities across CSR. We reviewed emission calculations and performed detailed testing of reported data back to underlying source data including invoices on a sample basis.</p>	<p>We did not identify any material errors relating to natural gas emissions.</p>	<p>Risk area has been appropriately addressed as part of our NGER assurance engagement.</p>	<p>Not applicable.</p>
<p><i>Completeness of emission and energy sources</i></p> <p>Given the complexity</p>	<p>Our team, comprising assurance experts and greenhouse and energy technical experts conducted site visits</p>	<p>We did not identify any material omissions of GHG emission and energy sources.</p>	<p>Risk area has been appropriately addressed as part of our</p>	<p>Not applicable.</p>



Issue/Risk area investigated	Testing conducted	Findings	Conclusion	Recommendations
<p>of the NGER requirements and the diversity of CSR's operations it is critical to ensure that all material emission and energy sources are identified and appropriate measurement methodologies applied in calculating the emissions for the 2012 NGER Report.</p>	<p>and walk through testing of managements' mapping of GHG emission and energy sources at a sample of significant sites across the CSR Group. We also performed detailed testing of reported data back to underlying source data on a sample basis.</p>		<p>NGER assurance engagement.</p>	
<p><i>Submitting the final 2012 NGER Report</i></p> <p>Given the number of facilities and NGER reports involved in the process the risk is that data is not uploaded completely or accurately into OSCAR.</p>	<p>We assessed the process in place to ensure that data is entered accurately including testing that underlying data system agreed to the OSCAR report and understanding the corporate review and sign-off process.</p>	<p>No material issues were identified.</p>	<p>Risk area has been appropriately addressed as part of our NGER assurance engagement.</p>	<p>None noted.</p>



**Other matters to be reported**

Nil.
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**Peer reviewer conclusion**

Name of the peer reviewer	Peter Rupp
Peer reviewer contact details	Deloitte Touche Tohmatsu (08) 9365 7000
Outcome of the evaluation undertaken by the peer reviewer	I concur with the assurance conclusion contained in the reasonable assurance report above.

## PUBLIC REPORT TEMPLATE 2012

### Part 1 - Corporation Details Controlling Corporation

CSR Limited

#### Table 1.1 - Major Changes to Corporate Group Structure or Operations

**Table 1.1 – Major Changes to Corporate Group Structure or Operations in the last 12 months**

There were no major changes to the Corporate Structure during the reporting period.

Market conditions for CSR’s products declined further in the year to June 2012. Dwelling starts declined by over 10% in the year, and commercial activity declined by 5%. The strength of the Australian dollar continues to impact adversely the competitiveness of Australian manufactured product. As a result, CSR continues to realign its manufacturing operations via site closures, mothballing and consolidation, to reflect this reduced level of activity.

#### Declaration

**Declaration of accuracy and compliance**

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*.

  
 Insert Name and Title of Signatory here *A.R.H. Sinden*  
 (~~Chair of the Board~~, CEO for Managing Director)  
 Date *20th December 2012*

## Part 2 - Assessment Outcomes

**Table 2.1 – Assessment Details**

**Name of entity** | Bricks and Roofing Schofields

7,204,833	GJ
4	%

**Total energy use in the last financial year**

**Total percentage of energy use assessed**

**Description of the way in which the entity carried out its assessment**

CSR Limited (CSR) has continued to undertake the planned assessments over the reporting period and endeavoured to prepare reports, in accordance with the assessment framework and relevant regulations. CSR's second cycle Assessment Plan has not yet been approved by the Department.

Only one assessment was undertaken during the 2011/12 reporting period, that of the Schofields Brick factory. The results are reported in Table 2.2.

The period of energy use to which the assessment relates is 1<sup>st</sup> July 2011 to 30<sup>th</sup> June 2012 commensurate with the second reporting cycle of the energy efficiency opportunities program. The total energy use of the assessed site being 4% of CSR's total energy use. CSR's Energy Improvement Manager continues to drive energy improvements across the company.

The outcomes of the new assessment and an update on previous assessments in relation to transitioning to the second cycle have been reported to the CSR Board Committee on Workplace Safety, Health and Environment.

CSR has prepared this report and undertaken its assessments in accordance with the Energy Efficiency Opportunities legislation.

**Energy Efficiency Opportunities**

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**Table 2.2 - Energy efficiency opportunities identified in the assessment**

**Bricks and Roofing Schofields**

Status of opportunities identified to an accuracy of better than or equal to ±30%	Total 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		
		No of Opps	GJ	No of Opps	GJ	No of Opps	GJ	
Business Response								
Implemented	Nil	Nil	Nil	Nil	Nil	Nil	115	
Implementation Commenced	Nil	Nil	Nil	Nil	Nil	Nil	Nil	
To be Implemented	3	1	173	Nil	115	1	8,000	
Under Investigation	4	2	24,933	Nil	Nil	2	15,793	
Not to be Implemented	2	1	0	Nil	Nil	1	29	
Outcomes of assessment	9	4	25,106	1	115	4	23,822	
							49,043	

**Notes:**

1. Opportunity implementation is subject to CSR's normal capital approval process.
2. Opportunities are not implemented for a number of reasons including those identified may have already been addressed through other opportunities or operational/process constraints.

**Table 2.3 - Details of significant opportunities identified in the assessment**

Description of Opportunity No 1		Voluntary Information	
<b>Natural Gas:</b> Increase the void of the brick allowing the amount of raw material used in the brick and the amount of energy used to produce the brick, to be reduced.	Equipment Type		
	Business Response		
	Energy saved (GJ)		Approx. 15,400 GJ
	Greenhouse gas abated (CO2-e)		
	\$\$ saved		
	Payback period		
Description of Opportunity No 2		Voluntary Information	
<b>Natural Gas:</b> Improve the control loop between the kiln and pre-heater. This would eliminate the need for the use of make-up burners which consume gas.	Equipment Type		
	Business Response		
	Energy saved (GJ)		Approx. 15,400GJ
	Greenhouse gas abated (CO2-e)		
	\$\$ saved		
	Payback period		
Description of Opportunity No 3		Voluntary Information	
<b>Natural Gas:</b> Circulate air within the kiln allowing the cooling of kiln cars within the kiln itself rather than outside the kiln.	Equipment Type		
	Business Response		
	Energy saved (GJ)		Approx. 14,350 GJ
	Greenhouse gas abated (CO2-e)		
	\$\$ saved		
	Payback period		

**Part 3 – Transition to Second Cycle**

**Viridian - Ingleburn**

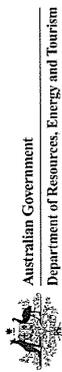
Status of opportunities identified to an accuracy of better than or equal to ±30%	Total Number of opportunities	Estimated energy savings per annum by payback period (GJ)						Total estimated energy savings per annum (GJ)
		0 – 2 years		2 – 4 years		> 4 years		
		No of Opps	GJ	No of Opps	GJ	No of Opps	GJ	
As reported in December 2011	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Business Response as at 30 June 2012								
Under Investigation	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Implemented	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Not to be Implemented	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
To be evaluated/reported in the second cycle	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

Note:

No opportunities are transitioning to the second cycle. This site will be subject to an assessment within the second cycle.

**Energy Efficiency Opportunities**

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**Viridian - Dandenong**

Status of opportunities identified to an accuracy of better than or equal to ±30%	Total 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		
		No of Opps	GJ	No of Opps	GJ	No of Opps	GJ	
As reported in December 2011	Nil	Nil	Nil	Nil	Nil	Nil	Nil	
Business Response as at 30 June 2012	Nil	Nil	Nil	Nil	Nil	Nil	Nil	
Under Investigation	Nil	Nil	Nil	Nil	Nil	Nil	Nil	
Implemented	Nil	Nil	Nil	Nil	Nil	Nil	Nil	
Not to be implemented	Nil	Nil	Nil	Nil	Nil	Nil	Nil	
To be evaluated/reported in the second cycle	Nil	Nil	Nil	Nil	Nil	Nil	Nil	

Note:

No opportunities are transitioning to the second cycle. This site will be subject to an assessment within the second cycle.

**Energy Efficiency Opportunities**

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**Lightweight Systems - Wetherill Park**

Status of opportunities identified to an accuracy of better than or equal to ±30%	Total 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		
		No of Opps	GJ	No of Opps	GJ	No of Opps	GJ	
As reported in December 2011	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Business Response as at 30 June 2012	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Not to be implemented	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
To be evaluated/reported in the second cycle	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

Note:

No opportunities are transitioning to the second cycle. This site will be subject to an assessment within the second cycle.

**Energy Efficiency Opportunities**

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**Bricks and Roofing - Cecil Park**

Status of opportunities identified to an accuracy of better than or equal to ±30%	Total 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		
		No of Opps	GJ	No of Opps	GJ	No of Opps	GJ	
As reported in December 2011	6	Nil	Nil	Nil	Nil	6	4,122	4,122
Business Response as at 30 June 2012	0	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	5	Nil	Nil	Nil	Nil	5	4,112	4,112
	1	Nil	Nil	Nil	Nil	1	10	10

Note:

For the opportunity to be evaluated in the second cycle, savings cannot be estimated until major operational works undertaken.

**Energy Efficiency Opportunities**

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Australian Government  
Department of Resources, Energy and Tourism

**Lightweight Systems - Yarraville**

Status of opportunities identified to an accuracy of better than or equal to ±30%	Total 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		
		No of Opps	GJ	No of Opps	GJ	No of Opps	GJ	
As reported in December 2011	1	Nil	Nil	1	0	Nil	Nil	0
Under Investigation								
Business Response as at 30 June 2012	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Implemented								
Not to be Implemented	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
To be evaluated/reported in the second cycle	1	Nil	Nil	1	0	Nil	Nil	0

Note:

The opportunity to be evaluated in the second cycle is related to demand management which does not have any direct energy savings.

# Contact us



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