

# INSPIRING BUILDING FOR LIFE



# CSR'S PRODUCTS BUILD AND **INSPIRE** SMARTER HOMES AND BUILDINGS

CSR's products are a core part of the construction industry that creates homes and buildings where people live, work and play. Our scale and network brings together those in the industry that believe in creating great spaces. We are developing new systems to make it easier and faster to build and inspire smarter, more connected homes and buildings.

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## 07 Innovation

Creating sustainable buildings of the future

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Contributing to an overall positive impact on the environment



## 22 People

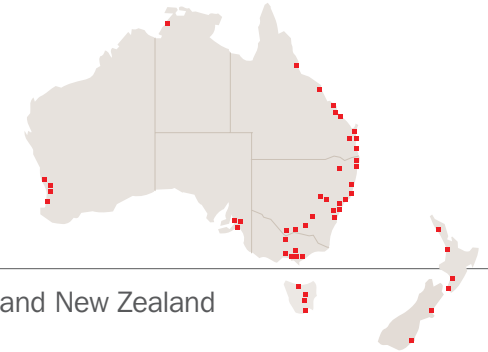
Building a safe and diverse place to work and grow



## 35 Community

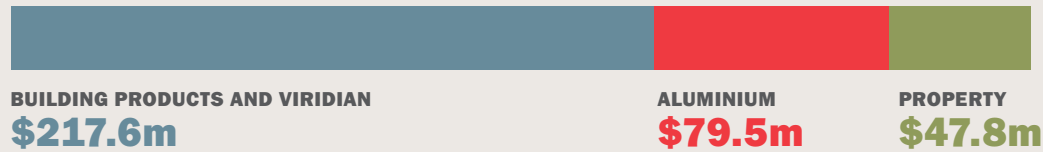
Engaging with local communities

# ABOUT CSR



Formed in 1855, CSR is one of Australia's oldest companies. Today it is a leading building products manufacturer in Australia and New Zealand and is the name behind some of the market's most trusted and recognised brand names.

**EBIT BY BUSINESS** Year ended 31 March 2018 (YEM18) – A\$ million



## BUILDING PRODUCTS AND VIRIDIAN



CSR's building products are used primarily in housing, multi-residential and commercial construction. Through our innovation programs, we are developing new products and systems across our portfolio targeting sustainable buildings of the future.

## ALUMINIUM



Through its 70% shareholding in Gove Aluminium Finance Limited, CSR holds an effective 25.2% interest in the Tomago aluminium smelter, located in NSW. Tomago is a globally competitive smelter which produces around 590,000 tonnes of aluminium annually, 25% of Australia's primary aluminium production and employs 950 people full time as well as 170 contractors.

## PROPERTY



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

## KEY FACTS

(Includes activities in which CSR has a majority equity interest)



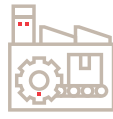
**\$2.6b**

Revenue in YEM18



**4,200**

CSR employees



**195+**

Manufacturing and distribution sites



**12,000+**

Customers across Australia and NZ



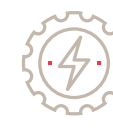
**↓ 33%**

Lost time injuries down 33% from five years ago



**\$3.1m**

Donated to CSR Community Support Program since 2003



**\$20m**

Dedicated Energy Improvement Fund



**↓ 14%**

Reduction in waste production from five years ago



# CSR PRODUCTS

CSR's products and systems reach homes and buildings across Australia and New Zealand.



AFS is a leader in load bearing permanent formwork walling solutions to deliver faster, lower cost construction.



Bradford is Australia's leading supplier of materials designed to make buildings energy efficient, comfortable and healthy for occupants through its range of insulation, wraps and building fabrics as well as ventilation, solar and battery systems as Tesla's preferred supplier into the new home market.



Cemintel provides engineered fibre cement systems and internal lining products.



Gyrock is Australia's leading manufacturer of gypsum based products including plasterboard, cornice and compounds.



Hebel is Australia's only manufacturer of autoclaved, aerated concrete that is used in residential, commercial and infrastructure applications.



Himmel and Potter are leading brands in aesthetic and acoustic interior solutions for commercial buildings.



Martini manufactures high-quality thermal and acoustic polyester fibre products for a variety of industries.



Monier is one of Australia's leading roofing experts, with over 100 years of manufacturing quality roofing products which is underpinned by its commitment to innovation.



PGH is one of Australia's largest manufacturers, innovators and marketers of clay bricks, walling systems and façade solutions for homes and commercial applications.



Viridian is Australia's largest glass supplier and leads the industry for quality and innovation.



THE HEBEL TEAM AT  
HEBEL'S AUTOCLAVED  
AERATED CONCRETE PLANT  
UNDER CONSTRUCTION IN  
SOMERSBY, NSW



# WELCOME

Workplace Health, Safety & Environment (WHSE) Commitment from WHSE Chairman Penny Winn and CEO Rob Sindel

## *Sharing our progress on sustainability at CSR*

In April 2019, CSR will complete the \$75 million development of our new Hebel AAC (autoclaved aerated concrete) panel plant in Somersby on the NSW Central Coast. This plant showcases the latest technology in automation and energy, water and waste management. Planning for this plant began over three years ago with sustainability a key driver of all facets of the development.

This project is a good example of how CSR is evolving our business in line with our sustainability pillars. Investing in new technologies and process improvements to reduce energy consumption and emissions intensity. This is critical as we move toward a low carbon economy to ensure that Australia can reduce emissions in line with our global commitments.

This year we are reviewing our sustainability targets post 2020 which follows on from our four intensity targets set by CSR in 2010. These targets set a 2020 goal of a 20% reduction per tonne of saleable product in energy, greenhouse gas emissions, solid waste and potable water usage using 2009/10 as the base year. To date, we have exceeded our 2020 targets for waste and CO<sub>2</sub>e with further work underway to reduce water consumption and energy use in the year ahead.

This will help frame our new targets to 2030. This process includes consultation with stakeholders to identify key target areas for CSR and is being undertaken with reference to two key frameworks: Task Force on Climate-related Financial Disclosures (TCFD) and the United Nations Sustainable Development Goals (SDG).

These frameworks are aligned to our sustainability goals in three key areas: the environment, our people and the community.

### ENVIRONMENT

Our work on reducing emissions and improving efficiency helped drive a 2.6% reduction in total CO<sub>2</sub>e emissions this year – despite high levels of production in line with strong demand from the construction market.

### PEOPLE

Safety continues to be a top priority for our businesses. While over five years we have made significant improvements in safety with the rate of lost time injuries down over 33%, we have not seen year on year improvements in all of our safety statistics this year.

Many of our sites are performing well, but we have more work to do with new initiatives to focus on key areas of Leadership Behaviour, Risk Management and Healthy Body and Minds.

### COMMUNITY

We continue to partner with a number of organisations to maintain our social licence to operate through positive interactions with the community.

The CSR Community Support Program has operated as a core component of our community involvement where CSR matches employee contributions dollar for dollar to a range of charitable organisations raising over \$3 million since it was launched in 2003. We are also continuing our engagement with local communities located near our sites. As an example, our involvement in the Golden Grove Extractive Industry Zone features in this report. In August, we launched a special program to support the Salvation Army Drought Appeal which raised over \$41,000. CSR has also extended its involvement with our student mentoring program with employees donating 628 hours during the year.

CSR has continued to make good progress on sustainability during the past year and we would like to acknowledge and thank all CSR employees and contractors for their contribution.

We hope you find this report informative and encourage you to provide feedback to us via the CSR website ([www.csr.com.au](http://www.csr.com.au)).

PENNY WINN CHAIRMAN, WORKPLACE  
HEALTH, SAFETY & ENVIRONMENT COMMITTEE

ROB SINDEL MANAGING DIRECTOR



# 2018 SUSTAINABILITY AT A GLANCE

CSR is committed to sustainable practices by contributing to a positive impact on the environment while also improving the energy efficiency, comfort and performance of homes and buildings. This report covers CSR's activities (including safety performance, emissions and energy, waste and water use) for the period of 1 July 2017 to 30 June 2018 to be consistent with the National Greenhouse Reporting (NGER) scheme.



## ENVIRONMENT

CSR is committed to contributing to an overall positive impact on the environment and reducing reliance on non-renewable resources



**↓ 2.6%**  
decrease in CO<sub>2</sub>e



**2020 target**  
exceeded target to minimise waste production and CO<sub>2</sub>e emissions



**↑ 0.8%**  
increase in potable water



**↓ 0.1%**  
reduction in waste sent to landfill.  
A **14%** improvement over last five years

## PEOPLE

CSR recognises that a sustainable workplace is one that provides a safe, rewarding and diverse environment for our employees



**8%**  
improvement in safety TRIFR from **14.2** in June 2017 (per million hours worked). A **23%** improvement over last five years



**41%**  
of internal promotions in YEM18 were women, up from **34%** in YEM17



**3.0**  
LTIFR increased from **2.7** in June 2017 (per million hours worked). A **33%** improvement over last five years



**43%**  
Severity rate improved to 30.5 in June 2018 (days lost per million hours worked)

## COMMUNITY

CSR maintains ongoing dialogue with our key stakeholders and the community to ensure we are meeting our social licence to operate



**5 years**  
CSR volunteers have donated their time for Business Clean Up Day over the last five years



**\$108,279**  
donated to CSR Community Support Program in 2018



**628 hours**  
volunteered with ABCN Student Mentor Program



**438 students**  
mentored by CSR employees

# INNOVATION

Creating sustainable buildings of the future





## SUSTAINABLE BUILDINGS OF THE FUTURE



### *AFS awarded Silver Status for the PVC Stewardship Program*

AFS Rediwall® recently achieved Silver Status for the PVC Stewardship Program which is administered by the Vinyl Council of Australia. The program is an ongoing long-term voluntary undertaking by the Australian PVC industry to recognise and progressively address, relevant environmental, health and safety issues along with the PVC product life-cycle within deliverable timeframes.

Silver status focuses on five key themes associated with the PVC lifecycle:

- Best Practice Manufacturing
- Safe and Sustainable Use of Additives
- Energy & Greenhouse Gas Management
- Resource Efficiency
- Transparency & Engagement



### *Gyprock brings better acoustics and design to new buildings*

Gyprock has recently extended its perforated plasterboard range with the launch of two new Gyptone profiles for curved ceilings – Gyptone Flexible 12mm Square and Gyptone Flexible Slotted Minigrid.

The Gyprock range of perforated plasterboard allows architects and designers to create ceilings and walls with a balance of aesthetics and functionality.

Manufactured for design versatility, both Gyptone Flexible boards allow architects, specifiers and design professionals the ability to create spaces with curved ceilings - all whilst achieving a comfortable environment with excellent acoustic performance.



### *Monier InlineSOLAR provides the benefits of a solar system integrated into the roofline*

Monier InlineSOLAR is a first to market in Australia and meets a consumer insight which is that 20% of Australian's will not put solar on their home because of the aesthetic look.

Compatible with all Monier concrete and terracotta roofing tiles, InlineSOLAR provides the flexibility to integrate solar panels with battery systems to take the power of the solar roof further.

InlineSOLAR's integrated panels create a low profile look blending with the roofline, which means that they are less prone to wind or debris damage than standard panels.



## SUSTAINABLE BUILDINGS OF THE FUTURE



### *Bradford Energy bringing solar and battery storage to new homes*

Solar and battery storage is rapidly becoming a standard feature of off-the-plan homes. Bradford Energy has established a number of partnerships with housing developers in Australia to enable homeowners to enjoy secure, reliable electricity supplies and significantly reduce energy bills.

As a founding signatory of the Clean Energy Council's Approved Retailer Code of Conduct, Bradford Energy has a long standing industry reputation for working with the highest quality materials and the best suppliers.

Bradford has collaborated with Tesla Energy to bring its global leading Powerwall battery technology into Australian homes, transforming the way in which Australians consume and store energy.



### *SpacerX improves speed of construction*

The Building Code of Australia (BCA) requires insulation to be installed so it maintains its position, thickness and high performance. To comply with this requirement, Bradford supplies roof spacers to provide enough space between the roof sheet and the safety mesh to create an air cavity for the insulation. Over the last two years, Bradford has invested in the development of an innovative design for a new roof spacer system known as SpacerX to improve the impact of insulation.

This patented roof spacer system manufactured in Australia is designed for concealed fixed metal roofs. SpacerX improves speed of construction by allowing the spacer and the concealed fixed roof clip to be assembled with fewer fasteners with a faster installation time.



### *Corium brings brick look to high rise buildings*

Corium from PGH Bricks & Pavers offers a genuine brick finish for projects where a lightweight cladding system is required.

The look of brick can now be used in mid to high-rise buildings, new construction and re-cladding projects, through the Corium cladding system.

The Corium system comprises brick tiles specially manufactured to fix mechanically to a galvanised steel backing section.

Corium can be used with a wide range of substructures, including concrete, timber frame, structural steel, lightweight steel frames, masonry and structurally insulated panels.

## SUSTAINABLE BUILDINGS OF THE FUTURE

### *Inclose breaks new ground with first pre-fabricated rainscreen façade student accommodation project*



#### **An exciting first for the Australian building industry is now taking shape in Canberra.**

Installation is underway of the new unitised rainscreen façade panel system from CSR Inclose on two student accommodation buildings in Canberra. This will be the first project of its kind in Australia and comprises almost 400 façade panels, engineered, designed and fabricated by Inclose, a new business within CSR's Building Products business.

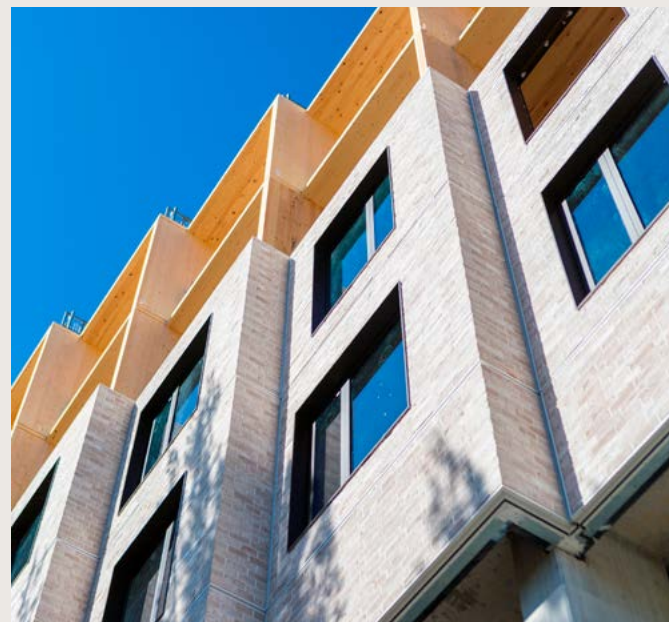
Inclose provides complete façade systems, suitable for commercial or multi-residential projects, designed and pre-fabricated offsite at our factory in Port Kembla, NSW. It also has a number of sustainability benefits as the system minimises construction waste and improves productivity on site.

The Inclose system is quick to install – an average of 200 square metres of completed façade can be installed per day; it does away with traditional scaffolding; and provides versatility of design with designers free to nominate their preferred façade cladding for use with the system – benefits that enabled BVN Architecture and Lendlease to use the system for the Canberra project.

Inclose is supplying 6,500 square metres of façade, using a brick slip cladding and factory installed windows, for the nine level north building and seven level south building, both are being constructed using cross laminated timber.

Installation commenced in June 2018 and with the extremely fast construction process the buildings will be ready for occupation at the start of the 2019 academic year.

The Inclose façade system is high-performing, high-quality, quick to install, compliant with Australian standards and has passed testing to both AS5113 and AS4284 standards.



*“What truly sets Inclose apart is the services provided from start to finish, providing customised system designs, full-shop drawings and panel layouts.”*

INCLOSE INSTALLATION  
IN CANBERRA



## SUSTAINABLE FACTORIES OF THE FUTURE

### Hebel's new manufacturing facility in Somersby, NSW

#### Hebel's new \$75 million manufacturing facility in Somersby, NSW is due for completion in April 2019.

CSR is investing in new capacity to meet the growing demand of the Australian and New Zealand housing market for Hebel's innovative and quality autoclaved aerated concrete (AAC) products. This new facility is utilising the best technology from around the world combined with decades of local manufacturing expertise. The plant will showcase the best practices in automation and environmental and waste management.

Throughout the design process, Hebel liaised with a number of stakeholders including the NSW Central Coast Council and the NSW Office of Environment and Heritage which included consultation with neighbouring properties.

The design and construction of the plant is focused on a number of key themes:

#### SAFETY

- Increased automation across the factory including fabrication and packaging areas to reduce manual handling

#### ENERGY

- Utilising a 10MW unmanned boiler system to maximise steam production
- Connectivity between autoclaves enables up to 30% of steam to be transferred between autoclaves with remaining steam diverted back into the boiler system
- Production processes can be timed to minimise operation during peak electricity load periods

#### WATER

- Aiming to have zero water waste from the plant by utilising a number of water sources including storm water captured on site
- Water and steam reuse is maximised in the production process

#### LOCAL SOURCING

- Collaboration with local manufacturers for major equipment including the autoclaves and raw material storage silos to ensure quality and longevity

#### RAW MATERIAL STORAGE AND PRODUCTION

- Underground storage of raw materials to minimise manual handling and dust emissions

#### WASTE

- Dust captured and recycled back into the manufacturing process

#### CSR PRODUCT EXPERTISE

A number of CSR products were utilised in the construction including:

- AFS Rediwall incorporated in below ground raw material storage bays
- Bradford glasswool used for 200mm industrial grade insulation for autoclaves
- Hebel external panels with new designs and coatings



HEBEL'S NEW MANUFACTURING FACILITY IN SOMERSBY

*"Hebel has seen significant growth across all key construction segments and this new plant enables us to improve efficiency, minimise use of resources and increase production as the only manufacturer of AAC panels in Australia and New Zealand."*



# ENVIRONMENT

Contributing to an overall positive impact on the environment





# ENVIRONMENT OVERVIEW

We have continued to improve the sustainability of our operations this year.

## CSR's three sustainability pillars



### Resilience and resource self-sufficiency



### Positive environmental impact



### Social licence to operate

## Our environmental commitment is based on three sustainability pillars

- Strengthening organisational resilience and resource self-sufficiency
- Contributing to an overall positive impact on the environment
- Proactively maintain our social licence to operate

This year we have enhanced our first pillar to reinforce a number of opportunities for CSR to reduce its reliance on non-renewable inputs. This includes energy self-sufficiency – that is we produce and consume our own energy; eliminating waste; incorporating closed loop water systems; reducing or eliminating packaging where possible and most importantly encouraging innovation and resource efficiency – re-imagining how we do things.

Our sustainability pillars are overseen by the Board and the Workplace Health, Safety & Environment Committee.

Each business in CSR has 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
- Continued focus on improving the energy efficiency of our operations



## ENVIRONMENTAL PERFORMANCE OF JOINT VENTURES

This report covers all activities in which CSR has a majority equity interest. For these activities, CSR has reported 100% of all data regarding the environment including emissions, energy and water use and waste production.

CSR also holds a minority position in a number of entities including an effective 25.2% interest in the Tomago Aluminium Company, through its 70% shareholding in Gove Aluminium Finance Limited. Data from these investments is reported directly by other entities.

## TOMAGO ENVIRONMENTAL COMMITMENT

Tomago Aluminium has a team of environmental specialists who are dedicated to improving environmental standards. The company is committed to a rigorous monitoring program to help constantly improve environmental performance and is accredited with ISO 14001 Certification. Further information is available via the Tomago website [www.tomago.com.au](http://www.tomago.com.au).

# DEVELOPING OUR 2030 TARGETS

CSR recognises it has a role in ensuring that it mitigates its climate impacts through the use of the most efficient and renewable energy mix; emission management within its manufacturing and supply chain; and its products and services.

## We have outlined our position on climate change with the following key principles. CSR:

- Accepts that the future is moving towards a low carbon economy. Many elements of the existing supply chain will change.
- Understands the requirement to address climate change by managing, reducing and, where possible, eliminating our own greenhouse gas emissions and encouraging our supply chain to do the same.
- Supports research, development and commercial application of advanced manufacturing and services to contribute to lowering emissions in the built environment.
- Favours policies which support the lowest cost pathways to transition the economy to a low carbon environment.
- Will not support an unnecessary loss of competitiveness with regard to its particular trading partners in moving to a low carbon economy.
- Maintains that social equity is important. Loss of competitiveness in one economic sector arising from overarching policy can lead to manufacturing plant closures, creating significant sectoral employment disruption and social consequences.

As part of mitigating the impacts of climate change from our operations, in 2010 CSR set four intensity targets with a 2020 goal of a 20% reduction per tonne of saleable product in energy consumption, greenhouse gas production, solid waste to landfill and potable water usage using 2009/10 as the base year.

As we approach 2020, we are developing our new targets to 2030. This process includes consultation with stakeholders to identify key target areas for CSR and is being undertaken with reference to two key frameworks: Task Force on Climate-related Financial Disclosures (TCFD) and the United Nations Sustainable Development Goals (SDG).

### TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD)

CSR is using the TCFD framework to increase its disclosure of governance, risk-management and material climate-related risks. A key part of the TCFD includes metrics and targets.



**2020 target**  
exceeded target to minimise  
waste production and CO<sub>2</sub>e  
emissions

## United Nations Sustainable Development Goals (SDGs)

There are 17 sustainable development goals with a targeted implementation by 2030.

The UN Goals are being used to frame the development of CSR's post 2020 targets. A working group in CSR has assessed the SDGs against our strategy and sustainability pillars and identified four key goals against which CSR's 2030 targets will be set.

### These four goals will be underpinned by Goal 17 – Partnerships for the Goals

where CSR will continue to work with our various stakeholders on sustainability including customers, suppliers, property developers, councils, government and various agencies and associations.



**THE GLOBAL GOALS**  
For Sustainable Development



# APPROACH TO CLIMATE RISK AND OPPORTUNITIES

CSR supports the Task Force on Climate-related Financial Disclosures (TCFD) framework to assess and disclose climate-related risks and opportunities. We have developed a staged approach to assess these risks and opportunities and integrate them into our risk assessment approach. This plan has been endorsed by the CSR Board WHSE Committee which has ultimate responsibility for CSR's approach to climate-risk management.

	2018/2019	2019/2020	2020/2021
<b>Governance</b>	<ul style="list-style-type: none"> <li>Established TCFD Working Group and terms of reference</li> <li>WHSE approval of TCFD approach to identify and manage material climate risks/opportunities</li> </ul>	<ul style="list-style-type: none"> <li>WHSE oversight of climate-related risks/opportunities</li> <li>RAC review of material climate risks</li> </ul>	<ul style="list-style-type: none"> <li>WHSE oversight of climate-related risks/opportunities</li> <li>RAC review of material climate risks/opportunities</li> </ul>
<b>Strategy</b>	<ul style="list-style-type: none"> <li>Develop briefing materials for company wide sessions on climate risk/opportunities</li> <li>Assess data requirements and process changes for scenario analysis</li> <li>Integrate climate risk into annual strategic planning, capital and business planning</li> </ul>	<ul style="list-style-type: none"> <li>Workshops to assess rationale, variables and assumptions of scenarios</li> <li>Undertake scenario analysis</li> </ul>	<ul style="list-style-type: none"> <li>Calculate and use metrics for assessing risks and opportunities</li> <li>Integrate scenario analysis into strategic planning</li> </ul>
<b>Risk Management</b>	<ul style="list-style-type: none"> <li>Climate risk incorporated into company wide risk assessments<sup>1</sup></li> <li>Completed external assessment of climate-related physical risks to major defined assets in CSR's operations out to 2050</li> </ul>	<ul style="list-style-type: none"> <li>Transition risk assessment of climate-related risks/opportunities</li> <li>Continue climate-risk assessments across business units</li> </ul>	<ul style="list-style-type: none"> <li>Integration of climate-related risks/opportunities into CSR business processes</li> </ul>
<b>Metrics and targets</b>	<ul style="list-style-type: none"> <li>2020 emissions reduction intensity target achieved</li> <li>Review of post 2020 targets to align with the United Nations Sustainable Development Goals</li> <li>Evaluation of metrics for assessing climate related risks and opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Finalisation of post 2020 targets</li> <li>Identify metrics and scenarios for assessing climate-related risks and opportunities</li> <li>Determine extent of scenarios and adjust data collection to support metrics</li> </ul>	<ul style="list-style-type: none"> <li>Disclosure of resilience to different climate-related scenarios</li> <li>Post 2020 target data published</li> </ul>

<sup>1</sup> Review of CSR's risk management framework and assessments is included on page 42 of the 2018 Sustainability Report.



Resilience and resource self-sufficiency

# PROGRESS TOWARDS 2020 GOAL

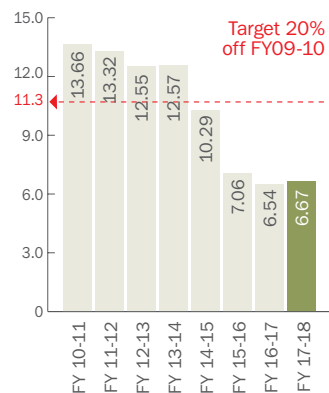
We have previously articulated our commitment to contribute to an overall positive impact on the environment with specific targets to reduce greenhouse gas emissions and waste production and the consumption of energy and water used in production.

Each CSR business unit sets goals to improve performance and reduce environmental impact and these are regularly reviewed by senior management and the WHSE Committee.

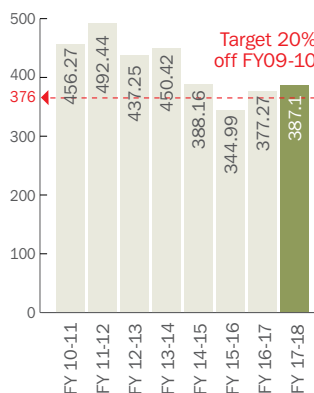
CSR's operations are making good progress towards our 2020 goal of a 20% reduction per tonne of saleable product in energy consumption, in CO<sub>2</sub>e emissions, solid waste to landfill and potable water usage using 2009/10 as the base year.

To date we have exceeded our targets for waste and CO<sub>2</sub>e with further work underway to reduce water consumption and energy use in the year ahead.

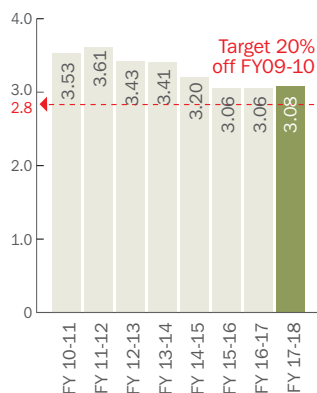
**WASTE PRODUCTION TO LANDFILL**  
Kg/Tonne of Product



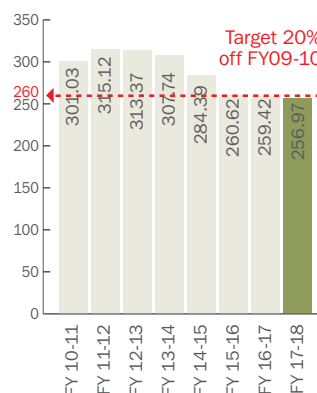
**POTABLE WATER CONSUMPTION**  
Ltr/Tonne of Product



**ENERGY CONSUMPTION**  
GJ/Tonne of Product



**TOTAL SCOPE CO<sub>2</sub>e**  
Kg/Tonne of Product



GOLDEN GROVE INSTALLATION OF 3,700 PV PANELS ON 6,000m<sup>2</sup> OF LAND

## \$3 million invested in renewable energy projects

In the last year CSR has completed three major renewable energy projects to reduce reliance on external energy sources with an investment of \$3 million.

Completed projects include:

- 367kW solar project at Bradford Insulation – Ingleburn, NSW
- Heat exchange project at Monier Roofing – Darra, QLD
- 1MW solar project at PGH Bricks – Golden Grove, SA

Additional solar projects are under review at other sites in the CSR network as well as a biomass project to utilise alternative waste resources as fuel.





Positive environmental impact

# ENERGY

CSR seeks to reduce greenhouse gas emissions by improving energy efficiency across its network of manufacturing facilities and through the roll-out of renewable energy solutions to its industrial sites.

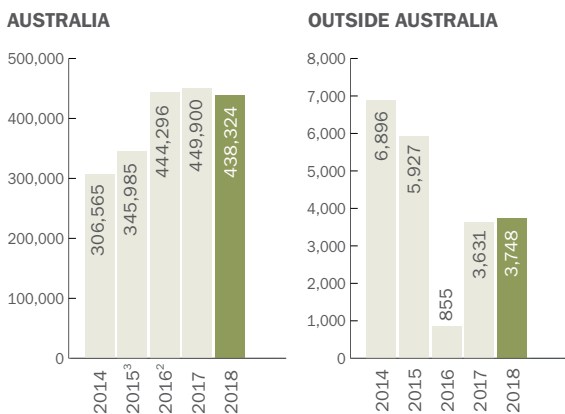
For the period on 1 July 2017 to 30 June 2018, total greenhouse gas emissions from CSR's majority owned businesses were 700,472 tonnes of CO<sub>2</sub>e which was 2.6% lower than the previous year despite continued high levels of production in line with construction market activity.

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

A copy of the unqualified limited assurance statement is found on pages 45-48.

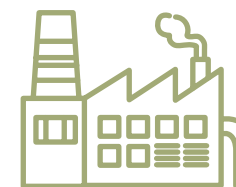
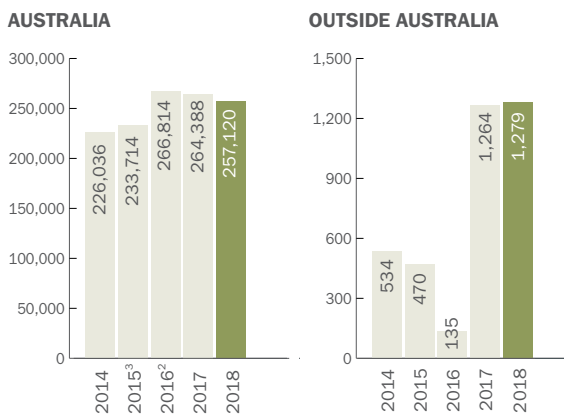
## SCOPE 1 DIRECT EMISSIONS<sup>1</sup>

As at 30 June (Tonnes of CO<sub>2</sub>e)



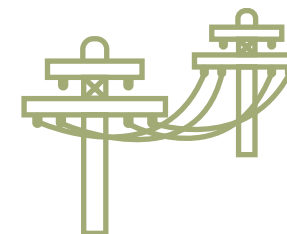
## SCOPE 2 INDIRECT EMISSIONS<sup>1</sup>

As at 30 June (Tonnes of CO<sub>2</sub>e)



### SCOPE 1 OR DIRECT

Emissions emitted from sources within the plant or factory boundary.



### SCOPE 2 OR INDIRECT

Emissions associated with the consumption of imported electricity, heat or steam.

1 Data excludes contractor emissions  
 2 Includes 12 months data for the six additional factories from the PGH Bricks JV  
 3 Includes 2 months data for the six additional factories from the PGH Bricks JV

*“This large scale solar project is a great example of how CSR is reducing its reliance on non-renewable energy.”*

## *Energy Improvement Fund (EIF) launched with \$2 million solar project at PGH Bricks in South Australia*

**In 2017, CSR established a \$20 million fund specifically targeting energy saving reduction projects to reduce reliance on external providers.**

The key aim of the fund is to bring forward projects that may not have met the internal business benchmarks and payback periods. The first major project completed as part of the EIF was the \$2 million solar farm at Golden Grove, SA.

The solar plant includes 3,088 solar panels and 31 inverters which feed electricity into the factory.

The solar system is split into three systems which can be individually monitored, with a forecast to provide around 25% of the factory consumption over 12 months. 350 metres of DC cable runs had to be laid underground from the panels to the points of connection at the manufacturing facility. The solar farm is registered as a power station with the ability to export power. The payback for the project is around 5.6 years.

The system is expected to produce 1.6 MWh of electricity – offsetting about a quarter of PGH’s current electricity bills with an expected 20-year CO<sub>2</sub>e abatement of 24,400 tonnes.



**LEFT TO RIGHT PGH MANAGEMENT TEAM:** MICHAEL COOK, PAUL DAVISON, NICK PEZET, LIONEL HELIE, JULIE REYNOLDS, BRUNO ALBANESE AND WAYNE BURTON



**SOLAR INVERTER ROOM, GOLDEN GROVE**



# WATER

CSR recognises the importance of using 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 targets.

## CSR is targeting a number of investments to upgrade water recycling and future water use.

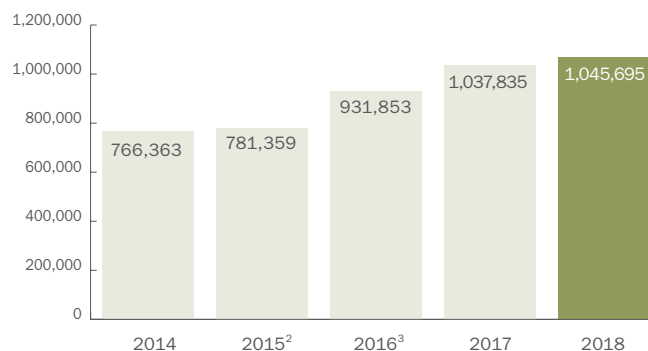
The new Hebel factory under construction is a good example of utilising new technology to recycle all water and steam utilised at the site as part of a “Zero Water Waste” policy at the site.

CSR consumed 1,045,695 kilolitres of potable water during the year ended 30 June 2018 – a 0.8% increase on the previous year. Potable water use has increased slightly due to a range of factors such as lack of rainfall reducing the use of tank water and production increases.

CSR continued to implement water saving measures across manufacturing sites to reduce usage.

## TOTAL POTABLE WATER CONSUMED<sup>1</sup>

As at 30 June (Kilolitres)



↑0.8%

increase in potable water following increased production

*“CSR is investing in new technology to reduce water use across its operations. A number of projects are underway including the recent investment of \$500,000 at Cemintel in Wetherill Park, NSW to build a new water treatment plant to recycle more processed water and reduce potable water use by up to 10%.”*



## Hebel reduces trade wastewater by 80%

Hebel uses 250kL of water per day to autoclave its products. This water is converted to steam, as well as condensing vapour. Both of these processes result in condensate which is collected in pits.

Some of the condensate can be used back into the process, but excess amounts, some 100kL, must be discharged as trade wastewater. Hebel wanted to reduce this number by 50%. As the vacuum system condensate increases temperature, Hebel had to design a recirculation system that took this into account.

The design included a heat exchanger, a reservoir pit to allow heat to dissipate and temperature controls to ensure that water was not too hot to be reused in the vacuum system. Since the system has been installed, there has been an 80% reduction in the trade wastewater discharge.

<sup>1</sup> Only metered potable water data is included

<sup>2</sup> 2015 includes 2 months data for the six additional factories from the PGH Bricks JV

<sup>3</sup> 2016 and 2017 includes 12 months of data for the six additional factories from PGH Bricks JV



# WASTE

Reducing waste remains a key priority for the company.



**CSR produced a total of 18,661 tonnes of solid waste to landfill in the year ended 30 June 2018 – slightly down on the previous year.**

Numerous waste reduction initiatives over the last five years has resulted in a 14% reduction in waste since 2014.

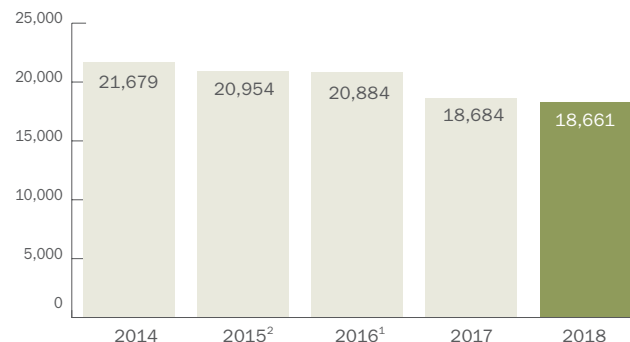
CSR Building Products Limited is a member of the Australian Packaging Covenant (APC) which sets out how Governments and businesses share the responsibility for managing the environmental impacts of packaging. As a signatory to the APC, we are committed to reducing the impacts of packaging within our supply chain.

As part of our commitment to the APC, CSR has participated in Australia Business Clean Up Day for the past five years.

Where possible, CSR uses recycled materials in production which significantly reduces the amount of new raw materials used in the production process.

## TOTAL SOLID WASTE TO LANDFILL

As at 30 June (Tonnes)



<sup>1</sup> 2016 and 2017 includes 12 months of data for the six additional factories from PGH Bricks JV

<sup>2</sup> 2015 includes 2 months data for the six additional factories from the PGH Bricks JV

Examples include:

- **Recycled glass cullet:** Bradford glasswool insulation uses up to 80% recycled glass.
- **Post-consumer (PET) packaging:** Martini manufacturers a range of insulation products with thermally-bonded polyester fibres, of which up to 80% is made from post-consumer (PET) packaging, such as empty drink bottles.
- **Fly ash:** Fly ash is a waste by-product of coal combustion in power stations which can improve the performance and quality of concrete. Monier has transitioned its production process to incorporate 15-20% of its cement requirements with waste fly-ash.
- **Waste wood off-cuts and saw dust:** PGH is developing a biomass project which utilises waste wood products as a feedstock for the kiln system, reducing the consumption of gas

CSR is also working with our customers to minimise waste at building sites and provide services to pick-up pallets and unused building products so that they can be recycled or re-used.



↓ **14%**

reduction in waste  
over the last 5 years

# ENVIRONMENTAL INCIDENT REPORTING

We report environmental incidents based on five levels with breaches reported to regulatory authorities as required.

**For the year ending 30 June 2018, CSR reported 115 environmental incidents compared to 136 incidents in the previous year, a reduction of 15%.**

There was an increase in Level 3 (Serious) incidents with 4 of the 10 relating to the PGH Cecil Park, NSW brick factory following a complaint regarding kiln stack emissions. PGH identified that a raw material change contributed to the issue, and corrective actions have been put in place in consultation with the NSW Environmental Protection Authority. PGH brick factories in Bringelly, NSW and Thomastown, VIC also reported Level 3 incidents in addition to Cemintel Wetherill Park, NSW; Gyprock Coopers Plains, QLD; Bradford Brendale, QLD and Viridian Dandenong, VIC.

CSR has not reported a Level 4 (Severe) or Level 5 (Extreme) in the past 10 years.

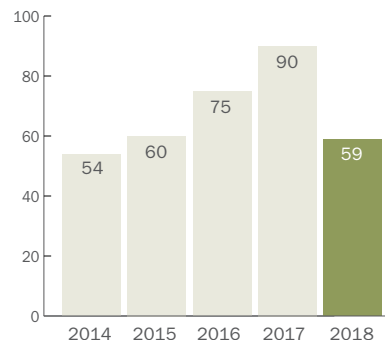
All reported incidents are investigated in line with CSR processes with remedial actions implemented as appropriate.

CSR also reported the following notices received during the year:

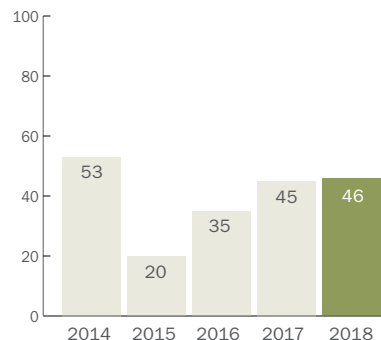
- In September 2017, a Pollution Abatement Notice (PAN) was received for PGH Thomastown, VIC in relation to non-compliant stormwater discharge. The PAN required modification of the stormwater management system to comply with the site discharge limits. Rectification work was completed as required. No penalties were applied by the EPA.

- In October 2017, a PAN was received by PGH Thomastown, VIC in relation to fluoride discharge from the facility which were above the annual mean outlined in the Environmental Protection License. Discussions continue with the EPA to ensure PGH Thomastown meets the requirements of the Notice. No penalty has yet been applied.
- In March 2018, a Penalty Infringement Notice (PIN) was issued by the EPA to PGH Cecil Park, NSW due to particle emissions exceeding the licence limits, with a penalty of \$15,000 applied.

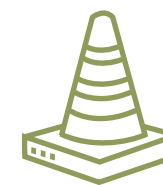
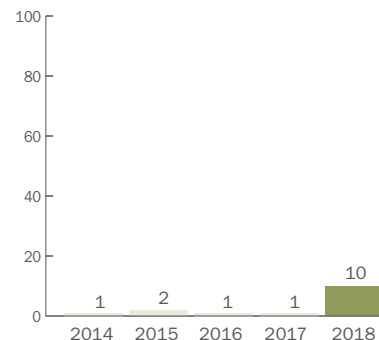
## LEVEL 1 – MINOR (Incidents)



## LEVEL 2 – SIGNIFICANT (Incidents)



## LEVEL 3 – SERIOUS (Incidents)



**115**  
environmental incidents  
across CSR

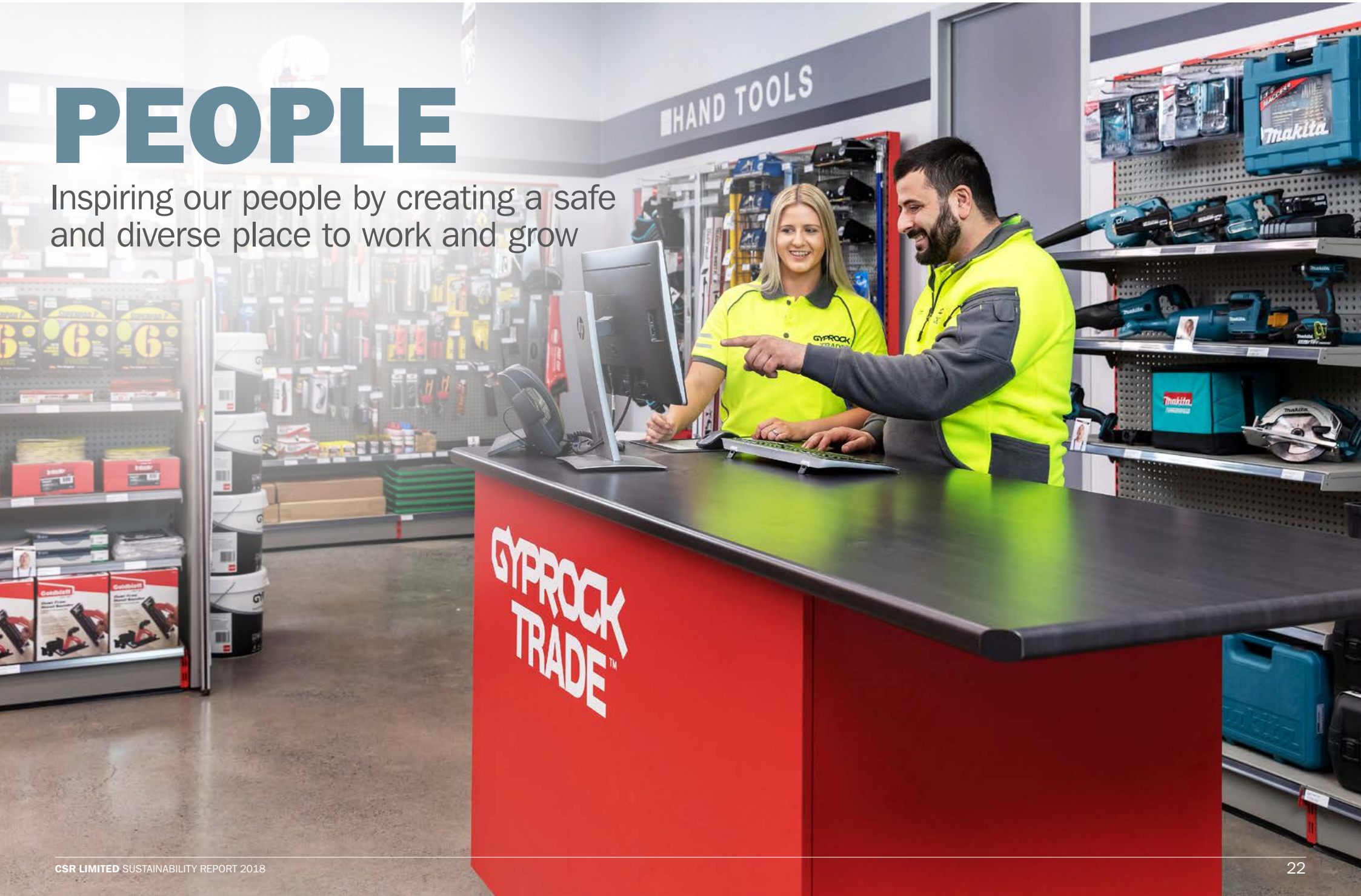


**↓15%**  
decrease in total  
environmental incidents although  
Level 3 incidents increased



# PEOPLE

Inspiring our people by creating a safe and diverse place to work and grow





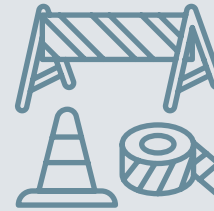
# OUR PEOPLE

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



## WELLBEING HEALTH AND SAFETY

The workplace health and safety of CSR's employees, contractors and visitors is a core value at CSR and good management of safety is an absolute business imperative. We are investing in our people and systems to develop an engaging and proactive approach to safety.



## INVESTING IN OUR PEOPLE

CSR is committed to investing in its employees. This investment enables us to deliver great customer experiences now and into the future. This investment also enhances the experience of our employees and helps them achieve their best.



## DIVERSITY

CSR believes that a diverse workforce improves business decision making, leading to better organisational relationships and ultimately better solutions for our customers.



## CULTURE

Our goal is to build an achievement orientated, high performance culture at CSR. This program commenced in 2010 and there are now many improvements that have been implemented at the site, business unit and group level.



# WORKPLACE HEALTH AND SAFETY

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

Our safety strategy focuses on both the leadership and behavioural dimensions of safety as well as the structural or physical risks in our operations.

We promote an engaging and proactive approach to safety including the use of lead indicators that cover both behavioural and structural safety risks.

Importantly CSR management is held accountable for safety performance and driving engagement, compliance and improvement initiatives.

We promote and support our employees to take personal ownership for their safety and that of their workmates.



## PROACTIVE SAFETY

Teams across CSR work continuously to identify, implement and monitor our activities to ensure we eliminate unsafe acts and practices. These activities range from tool box talks with teams prior to the start of a new shift to detailed workplace inspections at all sites throughout the year.



**10,091**

Tool box talks

BEHIND	ON TRACK	AHEAD ✓
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**1,846**

Safety committee meetings

BEHIND	ON TRACK ✓	AHEAD
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**11,872**

Safety condition inspections

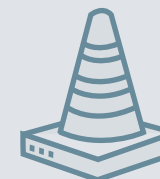
BEHIND	ON TRACK	AHEAD ✓
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**6,262**

Work instruction reviews

BEHIND	ON TRACK	AHEAD ✓
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**10,471**

Safety walks

BEHIND	ON TRACK ✓	AHEAD
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# LEADING SAFETY AT CSR

When it comes to safety, there can be no compromise.

**At CSR, we want our leaders to accept new challenges, adapt to change and look for every opportunity to improve. We want to create an environment of innovation, productivity and trust where people can operate efficiently and effectively.**





CSR has designed a Leading Safety training program to help our leaders perform at their best and develop safety leaders of the future.

This two day program is designed to help our leaders focus on a number of issues including:

- Awareness of what can go wrong and a proactive approach toward it.
- Know your people – talk honestly about what is important.
- Be open to sharing – sharing experiences and drawing from successes and mistakes rather than seeking blame.
- Develop personal leadership skills.

In November 2018, CSR hosted its second annual Safety Summit which brings together safety, operations, HR, EGMs and GMs across all business units. This year's summit focused on a number of areas to share key learnings across CSR including the Eyes In, Fingers Out program, the Start Work Huddle – changing up the traditional tool box talk and Building Capability – leadership communication skills development.

## SAFETY AND INJURY PREVENTION

Theme	Approach	2019 areas of focus
<b>Safety leadership and behaviour</b> 	Building leadership capability and performance measures	<ul style="list-style-type: none"> <li>• Using data and lead indicators to lead with our people on the right issues</li> <li>• Struck/struck by injury mechanism both from a potential injury and critical risk perspective</li> <li>• Exploring the theme of the “leader in me” across all CSR people</li> </ul>
<b>Healthy body and mind</b> 	Plan and promote site specific health initiatives in the workplace	<ul style="list-style-type: none"> <li>• Mental health first aid training</li> <li>• Young and new starters</li> <li>• Health calendars – onsite activities to encourage better fitness, diet and other wellness opportunities</li> </ul>
<b>Risk management</b> 	Eliminate or reduce risk with a simple, common sense approach	<ul style="list-style-type: none"> <li>• Reporting on insights to determine areas of need including new people, mobile plant and hand injuries</li> <li>• Detailed planning for key risk areas during end of year peak production season and managing maintenance shutdowns</li> </ul>
<b>Systems performance</b> 	Investing in systems to minimise risk and reduce admin requirements	<ul style="list-style-type: none"> <li>• Induction – targeting key areas with a phased introduction of new topics</li> <li>• Contractor support and management</li> </ul>



# SAFETY LEADERSHIP AND BEHAVIOUR

Using CSR Way Innovation Process to encourage better safety outcomes

**Over the last six months, PGH and Monier have focused on developing a new approach to safety known as “Eyes in and fingers out”.**

The teams used the CSR Way innovation process which focuses on a number of steps to develop new opportunities for improvement: Identify, Immersion, Insight, Ideas and Impact. By applying this process to safety, we can better understand issues from the perspectives of different people and encourage their ideas for better safety outcomes.

The journey began with over 80 interviews to understand what is and isn't working to keep teams focused on safety and injury prevention.

The key findings about how we are engaging our people with safety included:

- People want to be connected around similar issues and process across all CSR sites to share learnings
- Focus on sharing successes as well as learning from incidents
- Invest in systems to reduce admin tasks and focus on learning and sharing
- Help our people solve problems and challenges.

# HEALTHY BODY AND MIND

CSR is promoting a number of initiatives to improve overall wellbeing



**CSR has developed a number of initiatives to improve overall health and wellbeing while at work. These include programs promoting fitness and exercise, health checks and mental health support.**

Mental health, psychological injuries and aggravators continue to be a growing community and workplace challenge.

Research indicates that one in four people are affected by mental health. For CSR, the feedback to date is that the most common form of psychological injury is the result of anxiety or stress.

There are a number of resources in CSR for employees to help manage these issues with further work underway to increase awareness and assist in identifying where help may be needed.

## ACCESS EAP

CSR's Employee Assistance Program (EAP) which is a confidential counselling service, designed to assist employees and their immediate families with a wide range of personal and work related problems.

The program encourages self-referral but can also be accessed following a recommendation from a fellow employee or manager.

## MENTAL HEALTH FIRST AID

Two day training program which provides improved confidence and skills when dealing with mental health problems in the workplace. This training enables mental health first aiders to be “go to” contacts for employees struggling with stress or other issues.

# RISK MANAGEMENT

Safety risk management is looking at ways to reduce risk and leverage key learnings across CSR



**Our risk management approach seeks to eliminate or reduce risks with a simple, common sense approach which can be applied across all operations.**

We have identified key areas including working with mobile and fixed plant equipment, manual handling mentoring new people and managing new tasks such as shutdowns and maintenance.

Forklift safety remains a key risk area which is responsible for many incidents at CSR.

## IMPROVING FORKLIFT SAFETY IN LIGHTWEIGHT SYSTEMS

During the past year, we have progressed a major initiative in the Forking Safely program. Many of CSR's products include larger sizes and variable weights that require specific training to ensure forklift safety.

The program is a three tier accreditation system in addition to standard licencing that focuses on ensuring CSR employees have the support and knowledge to operate forklifts in our warehouse and factories. To date, more than 600 employees have gone through the first tier of training and accreditation with more than 200 employees on the second tier. A key part of the training process is to identify champions at various sites who provide coaching support.

This year, two LWS employees were awarded for their service in the Forking Safely program as part of CSR's Values Champions and MD Awards Programs.



## IMPROVING FORKLIFT SAFETY

A new initiative to improve performance involves a three phase safety program.



## Expanding chain of responsibility training across CSR

**CSR is committed to manufacturing, distribution and delivery of our building products in the safest way possible for our employees, people working within our supply chain and the general public.**

We have been working for a number of years to ensure that our training and systems will provide excellent risk management processes to focus on safety outcomes. This is a critical process for CSR as Heavy Vehicle National Laws (HVNL) were amended in October 2018 to effectively provide that every party in the heavy vehicle transport supply chain has a duty to ensure the safety of their transport activities. For CSR, this means that we will continue to take a risk-based approach to Chain of Responsibility (COR).

Chain of Responsibility means that even though contractors deliver most of CSR's products, we are still responsible for making sure that they are transported and delivered safely.

Over the last three years, CSR has developed a number of training programs targeting six key areas: Mass, Dimension, Loading, Speed, Fatigue and Maintenance.

Our current plan includes:

- Clear identification of our roles in the transport and supply chain
- Ensuring we have systems and processes in place to assess and manage our risks in the chain, and discharge our obligations
- Developing and maintaining best practice arrangements with suppliers/logistics/transport companies to require these parties to have systems in place to effectively manage their obligations under COR laws, and ensuring that CSR monitors and manages these processes regularly.



# SYSTEMS PERFORMANCE

The launch of the WHSE mobile app provides access anytime, anywhere for all reporting and analytics

**In 2018, CSR launched WHSE live which is a new online tool to report hazards and incidents.**

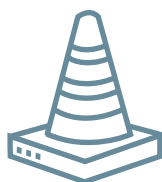
It provides 24/7 access to all CSR employees with live analytics to review performance progress and key risks across all sites, businesses and divisions within CSR.

The digital tool provides our teams with immediate access to all of the issues on sites, the ability to record important data and easy access to themes and trends which can improve safety outcomes.

This initiative provides a real time digital replacement to previous systems where data had to be manually input and aggregated to understand trends and issues.



THE NEW WHSE LIVE APP

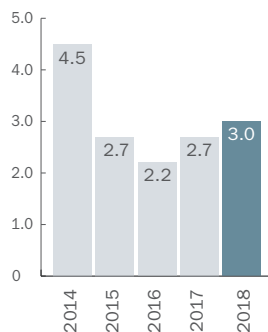


**8%**

improvement in safety TRIFR to 13.1 in 2018

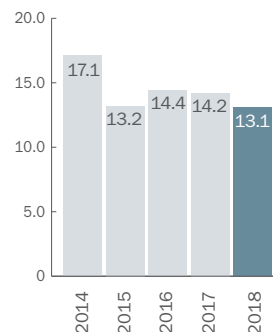
### LOST TIME INJURY FREQUENCY RATE

As at 30 June  
(per million work hours)



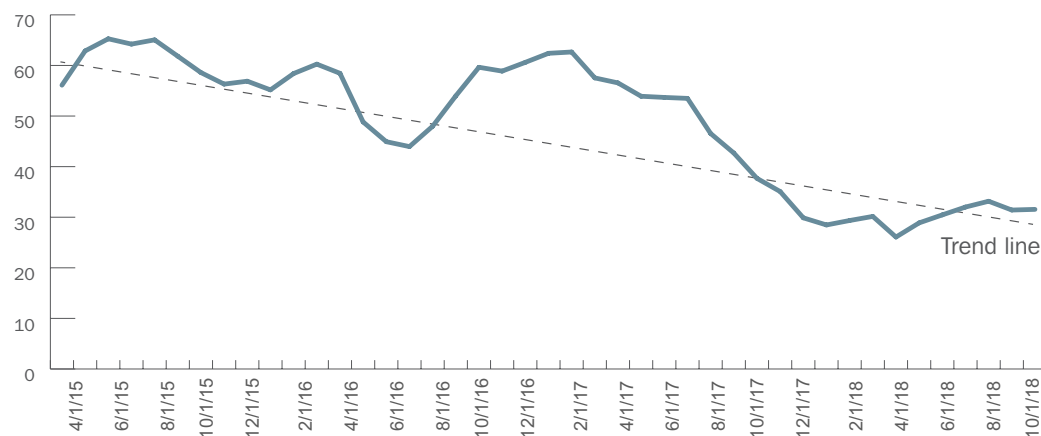
### TOTAL RECORDABLE INJURY FREQUENCY RATE

As at 30 June  
(per million work hours)



### SEVERITY RATE

(days lost per million hours worked)



# DIVERSITY

The communities and customers we serve are diverse and our workforce is changing as well

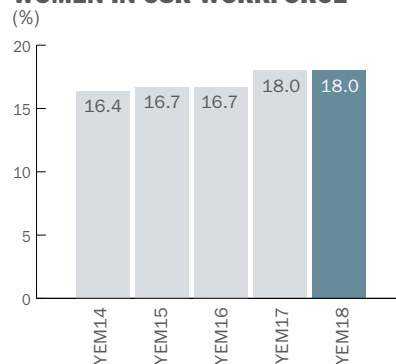
## A diverse workforce improves decision making

CSR believes that a diverse workforce improves business decision making, leading to better organisational relationships and ultimately better solutions for our customers. Diversity also assists in improving the financial results at CSR.

## Measurable objectives

Improving diversity requires cultural change driven by the leadership and commitment of the board and senior management. CSR has structured its management performance objectives around this commitment which are included in CSR's [2018 Annual Report](#).

## WOMEN IN CSR WORKFORCE



WOMEN IN MANUFACTURING LEADERSHIP SUMMIT HELD IN MELBOURNE, FEBRUARY 2018

## 2018 DIVERSITY ACHIEVEMENTS

Leadership and culture	Career management	Recruitment and retention
<ul style="list-style-type: none"> <li>27% of attendees at CSR leadership programs were women.</li> <li>Over 2,500 on-line training modules focusing on Fairness, Respect and Diversity were completed.</li> <li>Achieved gender pay equity through established bi-annual processes and detailed pay reporting by job grade.</li> <li>Diversity reporting within the organisation was maintained to drive more informed recruitment decisions.</li> <li>The CEO led diversity council meetings throughout the year to implement and review diversity initiatives.</li> <li>Diversity initiatives were promoted, shared and leveraged throughout the organisation through targeted communication.</li> </ul>	<ul style="list-style-type: none"> <li>Insights from the female talent review were leveraged to further support female talent within the business units.</li> <li>Career opportunities and development of women were promoted (in YEM18, 41% of internal promotions were women, compared with 34% in YEM17).</li> <li>Completed a review of workplace flexibility policies and parental support arrangements.</li> <li>Improvements include a dedicated support service for parents and increasing paid parental leave from 10 to 12 weeks for eligible employees.</li> <li>Promoted and sponsored the Women in Industry Awards with 10 finalists nominated from CSR.</li> </ul>	<ul style="list-style-type: none"> <li>Female applications and appointments fell marginally during YEM18 driven by stronger demand for operational roles more often applied for and filled by male candidates.</li> <li>Promoted CSR as a more diverse and inclusive organisation.</li> <li>Voluntary turnover of women held steady.</li> <li>Completed two workshops with senior leaders in CSR covering any bias that might affect recruitment decisions.</li> </ul>



*“By promoting diversity we strive to have a more open and trusting workplace, generate more innovative solutions and products, attract and retain talented people now and into the future and help our people achieve their potential and goals.”*

## 2019 Diversity Initiatives

We have set out our 2019 diversity initiatives that are monitored by the CSR Board, management teams and our Diversity Council.

### Leadership and Culture

- Continue to provide opportunities for women to develop and enhance their careers through the rollout of the Achieve@CSR performance management system.
- Maintain gender pay equity through established bi-annual processes including reviews by the executive team and CSR board.
- Continue to promote, share and leverage diversity initiatives and achievements through targeted and regular communication.

### Understanding and Engaging Female Talent

- Continue to leverage learnings from the detailed review of female talent, and maintain focus on pay equity, development and career aspirations.
- Complete a comprehensive rollout of the updated CSR policies and practices as they relate to workplace flexibility and parental support.

### Recruitment and Retention

- Complete a strategic review of talent management with a focus on workforce planning, recruitment and induction, career development and succession planning. Part of this scope is to ensure that CSR's processes and value propositions attract and retain female talent.
- Continue to report and track operational diversity metrics such as female applications, appointments and turnover.
- Develop deeper partnering relationships with universities and labour hire providers to attract more female talent.
- Exploring Student Vacation Program, Graduate Program and Apprenticeship opportunities.



## CSR launches new Parental Leave Assist

### CSR has launched a new and improved parental leave offering for Australian employees.

Being a working parent can often create an additional set of challenges and additional support may be required at key points including prior, during and when returning to work from parental leave. CSR formed a team to re-design and implement a new Parental Leave Assist program in Australia to support new parents during this important time in their lives.

A dedicated intranet site provides information on the parental leave procedure and information on how our internal Parental Leave Assist team can provide support so working parents can achieve their work and family commitments.

This site also provides our people with Keeping in Touch Guidelines, application forms and many more supporting documents to help when parental leave is taken.



### IN ADDITION TO 10 WEEKS' PAID LEAVE, CSR NOW OFFERS\*:



#### Parent Leave Assist Team:

- Focused support for parents and managers, pre, during leave and on their transition back to work.



#### Keeping in touch days:

- Up to 10 paid keeping in touch days if you choose to take part in work related activities.



#### Return to work bonus:

- 2 weeks' pay in addition to CSR's standard entitlement once the 3 month return to work milestone has been reached.



#### Other Benefits:

- Superannuation paid on all parts of paid parental leave and check-in days.
- Ability to pre purchase annual leave.
- Flexibility to have leave paid over 20 weeks at half pay.

\*Please note eligibility requirements apply.



# INVESTING IN OUR PEOPLE

CSR's leadership programs are designed to provide our leaders with the knowledge, skills and support to enable them to perform at their best. CSR is committed to investing in its employees and developing leadership skills.

## LEADERSHIP DEVELOPMENT

Over the past 7 years we have developed a suite of leadership training programs designed to provide our leaders with the knowledge, skills and networks to enable them to perform at their best. These programs have become a well-regarded part of our employee value proposition.

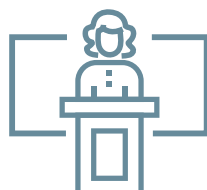
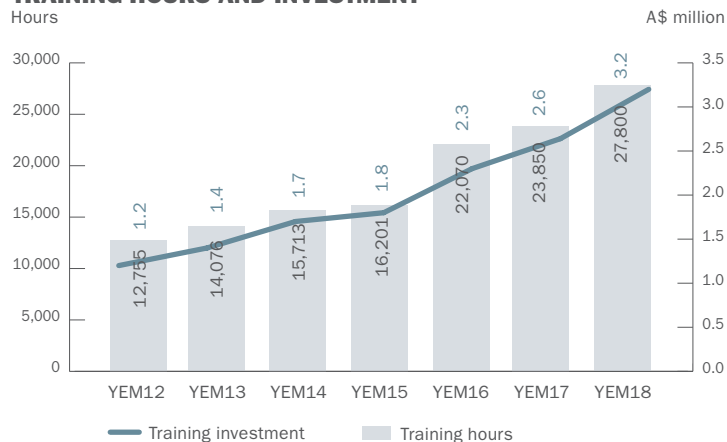
We have 3 leadership development programs in our suite:

- **CSR Leaders Program**  
– for senior leaders
- **CSR Constructive Leaders Program**  
– for middle/line managers
- **CSR Foundations of Leadership Program**  
– for team leaders & supervisors

In addition, additional training is provided across a wide range of areas including:

- Strengthening your leadership
- Diversity – breaking bias
- Finance
- Compliance
- Workplace health, safety and environment
- Technology

## TRAINING HOURS AND INVESTMENT



### \$3.2m

invested in training programs throughout 2018



### 27,800

hours of training completed in 2018



CONSTRUCTIVE LEADERS PROGRAM PARTICIPANTS 2018



FOUNDATIONS OF LEADERSHIP PROGRAM PARTICIPANTS 2018

# CULTURE PROGRAMS AT CSR

Achieving a high performance culture at CSR

**CSR measures its culture every two years using the Organisational Cultural Inventory (OCI) and the Organisational Effectiveness Inventory (OEI).**

These tools help describe and measure the culture and plan specific improvements. These tools are used across all business units with the next survey to be launched in early 2019.

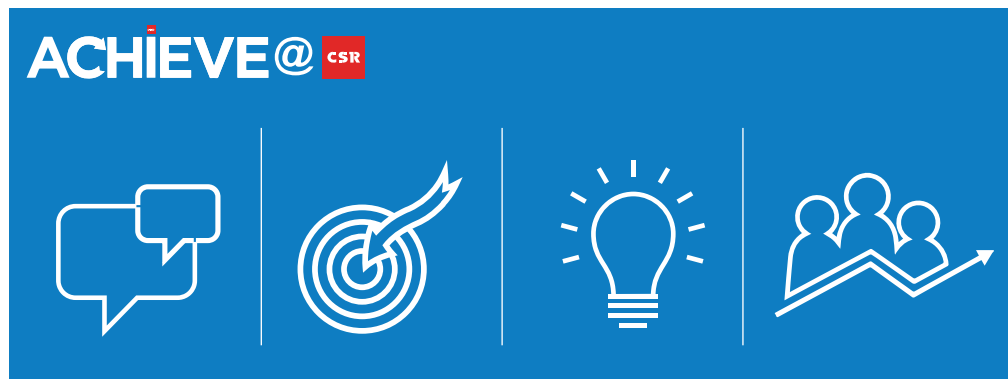
In our last survey, our employees identified that our performance management system was a pain point. The system was seen as an impediment to productivity and unlocking employee potential.

In 2016, CSR commenced work to re-design the performance management process used for employees. We set about a re-imagining of this process through development with our employees and external companies. We then used a design-thinking approach to create a new solution: Achieve@CSR which we piloted during the course of YEM18.

Achieve@CSR is a contemporary performance management framework that has been co-designed with our employees and is being rolled-out across 2,000 employees during YEM19.

A key part of the program is a new assessment matrix which is linked to pay decisions. The training program also focuses on generating performance insights using real time feedback through the Achieve@CSR app to drive motivation and improvement.

Achieve@CSR represents a significant investment in our people and is designed to build an achievement orientated, high performance culture at CSR.



## ACHIEVE@CSR PERFORMANCE MANAGEMENT FRAMEWORK – TRAINING MODULES

Module 1	Module 2	Module 3
<ul style="list-style-type: none"> <li>• Training in the new Performance Management Framework, more frequent quality conversations, setting goals and integrating the new CSR behaviours</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction of performance insights, the new assessment matrix and giving and receiving feedback</li> </ul>	<ul style="list-style-type: none"> <li>• Training in career development conversations and year-end reviews</li> </ul>
<ul style="list-style-type: none"> <li>• Follow-up coaching and support on goal setting and performance check-ins</li> </ul>	<ul style="list-style-type: none"> <li>• Follow-up coaching and support on performance check-ins, use of the Achieve@CSR app and feedback conversations</li> </ul>	



*“What is unique about our rollout of Achieve@CSR is the commitment to train, support and engage our employees in the latest techniques of performance management. We really appreciate how our employees are embracing the new skills.”*

NADA ZAHR, LEARNING AND DEVELOPMENT MANAGER





## CSR Values Champions Awards

**Our values are important to our culture, to the sustainability of our business and how we deliver great outcomes to our internal and external customers.**

The CSR Values Champions Awards is a great way to recognise the achievements of CSR employees. It was initiated following feedback from employees in our culture survey in 2010.

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 successful champions.

In 2018, the CSR values champions were chosen from over 375 nominations, with the majority of sites nominating at least one of their colleagues. In addition, 40 outstanding employees were awarded the Managing Director's award reflecting their extra effort in meeting a customer's need, commitment to workplace health, safety & environment, working together, innovation or company results.



TOP: 2018 VALUE CHAMPIONS WINNERS. ABOVE: THE AWARDS NIGHT

### THE CSR VALUES

By living the CSR Values, we are building our future together. We value our reputation, and focus on delivering great outcomes for our stakeholders in a sustainable manner.



**WORK, HEALTH, SAFETY & ENVIRONMENT**  
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



# COMMUNITY

Inspiring our people to engage and support local communities







Social licence  
to operate

# ENGAGEMENT WITH LOCAL COMMUNITIES

Our relations with the community can have a significant impact on our ability to operate each of our sites successfully.

**One of our three sustainability pillars is based on proactively maintaining our social licence to operate through greater interaction and positive impacts on the community.**

To achieve this aim, we continue to partner with a number of organisations in line with our commitment to operate in a sustainable manner and to gain the confidence of the communities in which we operate.

## COMMUNITY RELATIONS

Site level engagement with local communities and neighbours affected by our operations.



Community relations  
site planning underway  
at key sites

## COMMUNITY SUPPORT PROGRAM

Launched in 2003, CSR matches employee contributions dollar for dollar to three charitable organisations.

Over \$3 million donated to charities over last 15 years.

Provides volunteer support for various activities and campaigns and activities during the year.



**\$3m**

donated to charities  
over the last 15 years

## STUDENT MENTOR PROGRAM

CSR commenced working with the Australian Business and Community Network (ABCN) in 2011 to provide mentoring and coaching programs in schools in high need areas.

For the year to 30 June 2018, CSR volunteers donated 628 hours providing mentoring support to 438 students.



**628 hours**

volunteered with ABCN  
Student Mentor Program

## BUILDING PRODUCT DONATIONS

CSR supports a number of charities to build new facilities with product donations as well as technical support and installation expertise.



**Product  
donations**

to various charity projects



SARAH REDFERN HIGH SCHOOL MENTORING



## Golden Grove Extractive Industry Zone community consultation

**PGH in Golden Grove, SA is part of a group of manufacturers who regularly meet with local residents to discuss issues occurring in the Golden Grove area.**

PGH has joined with Austral Brick, Hanson and Clay Minerals to meet along side the EPA, Department of State Development and the local council for bi-annual meetings in the Tea Tree Gully local council chambers. These meetings enable the industry to work together on solutions to minimise the impact of manufacturing on the local residents and enable residents and other stakeholders to agree on key issues and opportunities.

Dust was highlighted as an area for improvement so PGH has undertaken a number of steps to minimise dust including:

- Improved enclosures in a clay storage bay
- Regular dust control using rainwater
- Installed sprinklers around the factory to reduce dust



## Business Clean up Day



**Australian Packaging Covenant Organisation**  
MEMBER

**As part of CSR's commitment as a signatory to the Australian Packaging Covenant (APC), various CSR sites across Australia participate in Business Clean Up Day each year.**

The APC is a sustainable packaging initiative which aims to encourage businesses to design more sustainable packaging, increase recycling rates and reduce packaging litter.

This is the fifth year CSR has participated with volunteers cleaning our sites and surrounding areas and is a great way to promote a clean, healthy and sustainable work environment.

Business Clean Up Day is part of the broader Clean Up Australia movement which has been running events across Australia for over 25 years.





## Community Support Program

**A core component of our community involvement is the CSR Community Support Program, under which CSR matches employee contributions dollar for dollar to three charitable organisations.**

CSR launched the CSR Community Support Program in 2003, and since that time CSR and its employees have donated over \$3 million to charity.

In the year to 30 June 2018, CSR and its employees donated \$108,279 to three charitable organisations, The Salvation Army, Youth Off The Streets and Assistance Dogs Australia. CSR extends its relationship with its partnership charities by providing volunteer support for various campaigns and activities during the year.



**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.



**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.



**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.



### \$3m

donated since the launch of the CSR Community Support Program in 2003



**Assistance Dogs Australia**  
Giving Freedom & Independence



# WORKING IN THE COMMUNITY

CSR has a number of programs to assist in the community and provide volunteer opportunities for our employees.

## CSR commenced working with the Australian Business and Community Network (ABCN) in 2011.

It is a partnership of highly committed national business leaders and companies working on mentoring and coaching programs in schools in high need areas.

For the year to 30 June 2018, CSR volunteers donated 628 hours, providing mentoring support to 438 students from disadvantaged communities in New South Wales, Queensland and Victoria.

ABCN's impact framework measures the short and medium term impact of our programs. The impact statistics below reflect the outcomes of our mentoring programs to help disadvantaged youth improve their educational outcomes.

Impact statistics are based on data collected from all ABCN programs nationwide across all member companies and participating schools.

90% of students who participated in ABCN's flagship programs *Goals* or *Aspirations* completed Year 12 or its equivalent compared with a 74% national average and 61% of disadvantaged students.

61% of students who participated in *Goals* or *Aspirations* have accepted university study offers compared with a 38% national average and 17% of disadvantaged students).



SARAH REDFERN HIGH SCHOOL MENTORING PROGRAM



**438**

students mentored  
by CSR employees in 2018



**628**

hours of time volunteered  
by CSR employees

## CSR supports Salvation Army Drought Appeal



**In August 2018, CSR launched a special appeal with employees to donate to the Salvation Army Drought Appeal.**

The Salvation Army's Rural Support Services provides a network of support for people in regional and remote areas in need of practical or financial assistance, or who would simply benefit from a listening ear or a hand of friendship.

During the month of August, CSR employees donated over \$19,000 with CSR matching all donations dollar for dollar totalling a donation of over \$41,000 to the appeal.



IMAGE COURTESY OF THE SALVATION ARMY



MONIER SPRINGVALE, VIC PARTNERS WITH CARWATHA COLLEGE, NOBLE PARK NORTH, VIC

## Opportunity Knocks

### Monier is a business class partner with Carwatha College since 2016.

The partnership includes career days, Victorian Certificate of Applied Learning (VCAL) program exploration and staff mentoring. A recent initiative is the “Opportunity Knocks” program attended by 24 students.

The day includes discussion on careers paths, plant tours and sessions on sales, estimating, customer service, construction and finance. Small group discussion included discussions on current employment, education after high school, recruitment and future aspirations.

The students participated in a tour of the concrete roof tile plant at Springvale and learnt how roof tiles are manufactured. All students underwent site induction and provided with personal protection gear. They were taken through the Springvale factory by five members of the operations team.

## Helping to build our communities

### Gyprock plasterboard and Cemintel wallboard provided the internal lining for the office, kitchen and toilets for a new community building in Cooloola, QLD.

The shed provides a vital community role following a long, exhaustive effort by community leader Brian Lindfield to see the project get off the ground.

The shed includes disabled bathroom facilities, a first aid room with a hospital bed and a defibrillator, a recreation/training room, workshop, commercial kitchen and undercover outdoor area. It encourages locals of all walks of life to come together and get productive, with many across the region (and state) often suffering in silence.

The taboos surrounding mental health, particularly amongst men, in the region can be difficult to dismantle. Beyond its immediate use, it is built to modern cyclone standards, and can double as an emergency shelter in the event of a natural disaster.

*“There are a lot of retired servicemen and women in Cooloola, and one of the things I’m told regularly is that they need somewhere to go to get them out of the house. We would like to thank Gyprock and Cemintel for their kind support of a project located in a regional community full of servicemen and women.”*



GYPROCK PLASTERBOARD INSTALLATION, TIN CAN BAY MENS' SHED



# RISK AND ASSURANCE

Reviewing risks and opportunities  
across our strategic decision making



# RISK MANAGEMENT

Risk management is an important business driver of strategic decision-making.

**Having a CSR wide approach to risk management enables CSR to consider the potential impact of all types of risks on all processes, activities, stakeholders, products and services.**

CSR reviews its risk management policy each year to ensure that the overall risk management approach is in line with the company's objectives, provides the opportunity to focus on the intended benefits for the upcoming year, identifies risk priorities and ensures that appropriate attention is paid to emerging risks.

Mandate and commitment from the Board is critically important and is maintained throughout the year. Keeping the risk management policy up to date is an important first step in ensuring that risk management is a dynamic activity that is fully supported by the Board and mirrors the company's objectives.

Risk Management at CSR is an iterative process, each cycle enhances our understanding of our risks and deepens our engagement with stakeholders including employees, contractors, regulatory bodies, government, shareholders and the community.

## CSR'S RISK MANAGEMENT FRAMEWORK

- Connects the Board's commitment to the process and is expressed through and overseen by the Board Risk and Audit Committee (RAC) whose terms of reference explicitly address risk management.
- Recognises the influence and expectation of various external stakeholders and through the risk management program and internal audit function connects those expectations to what CSR does.
- Seeks to influence existing culture to better manage risk and opportunity having regard for CSR's economic, social, regulatory and operational environment.
- Enables a standardised approach to risk management through a process of risk assessment and classification.

CSR's risk management policy is available on our website at [www.csr.com.au/investor-relations-and-news/corporate-governance](http://www.csr.com.au/investor-relations-and-news/corporate-governance)

## PRINCIPLES OF RISK MANAGEMENT



# MATERIALITY TABLE

There are a number of risks in the markets in which CSR operates. A range of factors, some of which are beyond CSR's control, can influence the performance of CSR.

KEY AREAS OF MATERIALITY	RISKS	MONITOR AND MANAGE RISK
<b>Aluminium, currency and debt markets</b>	<ul style="list-style-type: none"> <li>• CSR's results are impacted by movements in the global US dollar price for aluminium and currency fluctuations.</li> <li>• Some risks related to the aluminium operation cannot be hedged including regional price premiums, global relativity of price of electricity and inputs such as alumina and petroleum coke as well as changes to the joint venture structure or potential operational issues at the Tomago smelter including electricity curtailments.</li> </ul>	<ul style="list-style-type: none"> <li>• CSR has a policy to hedge both US dollar sales and foreign currency exposure when specific targets are met, with the primary objective of reducing short-to-medium term earnings volatility. This policy is monitored regularly by CSR's Finance Committee which includes CSR's CEO, CFO, Group Treasurer and the General Manager of Gove Aluminium Finance.</li> <li>• CSR regularly monitors cash flow and the group financial position as part of the Finance committee's function.</li> <li>• CSR is actively engaged with the Tomago operating committee through its position on the Tomago Board. Tomago undertakes separate material risk analysis to identify and mitigate potential operational risks.</li> </ul>
<b>Australian construction markets and competitor activity</b>	<ul style="list-style-type: none"> <li>• Approximately 50% of CSR's total revenue is generated from product and services supplied into the new residential construction sector of Australia and New Zealand which is impacted by several macro-economic factors.</li> <li>• Changes in ownership in the construction sector has resulted in larger customers representing an increasing proportion of CSR's revenue.</li> <li>• As a supplier to the construction market, CSR is subject to a number of competitive forces including other domestic and international suppliers and new technologies which could replace existing building methods.</li> </ul>	<ul style="list-style-type: none"> <li>• Reviews of market activity are factored into CSR's monthly reporting, quarterly forecasting and annual budget and planning cycles, which in turn drive capacity and capital planning. Furthermore, the nature of CSR's building products is that they are typically sold late in the construction process, giving CSR some visibility of changes in market conditions before specifically impacting demand.</li> <li>• CSR is actively developing and acquiring new products, services and distribution networks to improve its position in the market and provide a comprehensive service offering.</li> <li>• The release of future land supply for residential development relies on the coordination of government and regulatory bodies with builders and developers to deliver infrastructure and services for new projects.</li> </ul>
<b>Digital and cyber security</b>	<ul style="list-style-type: none"> <li>• Digital services are increasingly used by the construction sector. CSR's digital development program is critical to achieving growth in its key markets.</li> <li>• CSR network and data risks for cyber security breaches.</li> </ul>	<ul style="list-style-type: none"> <li>• CSR has developed its CSR Connect digital platform which provides 24/7 access to all customer account pricing, ordering, delivery and invoicing data.</li> <li>• A cyber security improvement plan and alignment to ISO 27001 standard is underway.</li> </ul>

Note: Material Risks are listed alphabetically

**MATERIALITY TABLE CONTINUED**

KEY AREAS OF MATERIALITY	RISKS	MONITOR AND MANAGE RISK
<b>Employee and community engagement</b>	<ul style="list-style-type: none"> <li>An engaged and diverse workforce is critical to CSR's long term success – to help develop new ideas and build a workforce more representative of our society and in line with new labour models (eg gig economy).</li> <li>This includes managing its aging workforce, transferring technical skills and sales relationships as well as promoting trade apprenticeships across the building sector.</li> <li>CSR recognises that it plays an important role in the success and prosperity of local communities as an employer, operator of major manufacturing sites and developer of its legacy property assets.</li> </ul>	<ul style="list-style-type: none"> <li>CSR has developed a suite of leadership and training programs to provide our people with the knowledge, skills and support to enable them to perform at their best.</li> <li>Succession and contingency planning in place across all business units.</li> <li>New parental leave assist program launched to support new working parents</li> <li>Community relations site planning underway at key sites.</li> </ul>
<b>Energy and climate change</b>	<ul style="list-style-type: none"> <li>CSR's manufacturing operations use significant amounts of energy including electricity and gas.</li> <li>These energy costs are increasing, particularly for Tomago aluminium which impacts its cost competitiveness compared to global smelters.</li> <li>The transition to a low carbon economy and mitigating the potential impacts of climate change as well as government regulations and planning may impact the availability and nature of energy supply as well as how we manage our land assets and business processes.</li> </ul>	<ul style="list-style-type: none"> <li>CSR has committed to a 20% per tonne reduction of energy consumption, greenhouse gas emissions, potable water consumption and solid waste production to landfill per tonne of saleable product by 2020 using 2009/10 as the base year.</li> <li>Where possible, CSR enters into long-term contracts to provide greater security of energy supply for its factories.</li> <li>CSR's Energy and Carbon Management Committee oversees risks related to electricity pricing and management.</li> <li>Alternative energy sources including solar power are also under review in addition to site specific energy reduction initiatives.</li> <li>The potential climate change impact on key physical assets completed with transitional climate risks to be reviewed as part of the Taskforce on Climate Change Task Force on Climate-related Financial Disclosures (TCFD) framework.</li> <li>Established a \$20 million CSR Energy Improvement Fund to deliver energy saving projects across its manufacturing sites.</li> </ul>
<b>Product liability</b>	<ul style="list-style-type: none"> <li>Previous involvement in asbestos in Australia and exporting asbestos to the United States.</li> <li>CSR ceased asbestos mining in 1966 and divested remaining interests in 1977.</li> </ul>	<ul style="list-style-type: none"> <li>CSR meets all valid claims in both Australia and the United States on an equitable basis.</li> <li>The asbestos provision is impacted by movements in claim numbers, settlement rates and values and movements in AUD/US\$ exchange rate.</li> </ul>
<b>Supply Chain and product compliance</b>	<ul style="list-style-type: none"> <li>CSR relies on an extensive supply chain to manufacture and distribute its products and services.</li> <li>This supply chain can be impacted by natural, political or technological disruptions which the company reviews to develop alternative supply options and minimise the risk of potential supply dislocation.</li> <li>Changes in building codes requires ongoing assessment to ensure products are fit for purpose and compliant with all relevant codes. This includes additional risks associated with supply and install services.</li> </ul>	<ul style="list-style-type: none"> <li>CSR has a quality management system to ensure that all products manufactured or supplied consistently meet the requirements and specifications of international and national quality standards and customer expectations.</li> <li>CSR has launched a two year work plan to develop and implement its sustainable procurement strategy. This process will also align CSR with the requirements of the proposed Australian Modern Slavery legislation.</li> </ul>
<b>Workplace health and safety</b>	<ul style="list-style-type: none"> <li>CSR has a stated long term objective of ensuring CSR people and contractors are not injured while at work across all operations.</li> </ul>	<ul style="list-style-type: none"> <li>The Board WHSE Committee regularly reviews initiatives targeting improved safety performance across our businesses.</li> </ul>

Note: Material Risks are listed alphabetically



## DELOITTE S19 NGER LIMITED ASSURANCE



**Limited assurance engagement report on CSR Limited's compliance with Section 19 of the National Greenhouse and Energy Reporting Act 2007 for the reporting period ended 30 June 2018 to the Directors of CSR Limited**

**Part A – Auditor's Report**

We have conducted a limited assurance engagement over CSR Limited's ("CSR") energy and emissions report ("NGER Report") for the year ended 30 June 2018, in accordance with Section 19 of the *National Greenhouse and Energy Reporting Act 2007* ("NGER Act").

The NGER Report consists of the following:

- Scope 1 greenhouse gas emissions of 444,294 tonnes of CO<sub>2</sub>-e
- Scope 2 greenhouse gas emissions of 257,120 tonnes of CO<sub>2</sub>-e
- Total energy production of 1,859 GJ
- Total energy consumption of 8,379,750 GJ

for the period 1 July 2017 to 30 June 2018.

**Details of audited body**

Name of audited body	CSR Limited
Address	Trinity 3, 39 Delhi Road North Ryde, NSW 2113
ABN	90000001276

**Management's Responsibility**

Management of CSR are responsible for the preparation and presentation of CSR's NGER Report in accordance with Section 19 of the NGER Act. This responsibility includes the design, implementation and maintenance of internal controls relevant to the preparation and presentation of the NGER Report that is free from material misstatement, whether due to fraud or error. Management of CSR are responsible for the interpretation and application of the requirements of the NGER Act and the National Greenhouse and Energy Reporting (Measurement) Determination 2008 ("NGER Measurement Determination") in determining operational control and quantifying emissions and energy, which are reflected in the Basis of Preparation that has been provided to us.

Emissions quantification is subject to inherent uncertainty because incomplete scientific knowledge has been used to determine emissions factors and the values needed to combine emissions due to different gases.

**Our Independence and Quality Control**

We have complied with the independence and other relevant ethical requirements relating to assurance engagements, which are founded on the fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour. This includes all of the requirements as defined in the NGER Regulations regarding the Code of Conduct, independence and quality control.

The firm applies Auditing Standard ASQC 1 *Quality Control for Firms that Perform Audits and Reviews of Financial Reports and Other Financial Information, Other Assurance Engagements and Related Services Engagements*, and accordingly maintains a comprehensive system of quality control including documented

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policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

**Our Responsibility**

Our responsibility is to express a limited assurance conclusion on CSR's NGER Report for the period 1 July 2017 to 30 June 2018, based on the procedures we have performed and the evidence we have obtained.

We have conducted our limited assurance engagement in accordance with the *National Greenhouse and Energy Reporting (Audit) Determination 2009* ("NGER Audit Determination") and the Australian Standard on Assurance Engagements *ASAE 3410 Assurance Engagements on Greenhouse Gas Statements* ("ASAE 3410"), issued by the Australian Auditing and Assurance Standards Board, in order to express a conclusion whether, based on the procedures performed and the evidence obtained, anything has come to our attention that causes us to believe that the NGER Report has not been properly prepared and presented, in all material respects, in accordance with the NGER Act and associated NGER Regulations and guidance. The NGER Audit Determination and relevant national and international standards require that we plan and perform the engagement to obtain limited assurance about whether the NGER Report is free from material misstatement.

We read other information included within the CSR 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 NGER Report. Our responsibilities did not extend to any other information.

A limited assurance engagement in accordance with the NGER Audit Determination and ASAE 3410 involves assessing the suitability in the circumstances of CSR's selection of measurement methods and criterion provided in the NGER Measurement Determination as the basis for the preparation of the NGER Report, assessing the risks of material misstatement or material non-compliance of the NGER Report, whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the NGER Report. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both risk assessment procedures, including an assessment of internal control, and the procedures performed in response to the assessed risks.

The procedures we performed were based on our professional judgement and included enquiries, observations of processes performed, inspection of documents, site visits to a sample of CSR facilities, analytical procedures, evaluating appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records. An assurance engagement also includes:

- Evaluating the appropriateness of the quantification methods and reporting policies used, and the reasonableness of emissions estimates made by management of CSR;
- Assessing the suitability in the circumstances of CSR's selection of measurement methods and criterion provided in the NGER Measurement Determination as the basis for the preparation of the NGER Report;
- Evaluating the application of the activity definitions in determining facility boundaries and operational control in determining controlling corporation boundaries; and
- Evaluating the overall presentation of the NGER Report.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement. Accordingly we do not express a reasonable assurance opinion

**DELOITTE S19 NGER LIMITED ASSURANCE**



about whether CSR's NGER Report has been prepared, in all material respects, in accordance with Section 19 of the NGER Act.

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, the NGER Audit Determination and ASAE 3410.

**Limitation of Use**

This report has been prepared for the Directors of CSR for the sole purpose of reporting on the NGER Report in accordance with Section 19 of the NGER Act. We understand that a copy will be provided to the Clean Energy Regulator ("CER") for the purpose of reviewing CSR's compliance with the NGER Act and NGER Regulations. 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 CSR, or for any purpose other than that for which it was prepared.

**Inherent Limitations**

There are inherent limitations in performing an assurance engagement - 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 and NGER Regulations, as an assurance engagement is not performed continuously throughout the year and the procedures performed in respect of compliance with the NGER Act and NGER Regulations 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.

A limited assurance engagement is restricted primarily to enquiries and analytical procedures and the work is substantially less detailed than undertaken for a reasonable assurance engagement. As such the level of assurance is lower than would be the case for a reasonable assurance engagement.

**Limited Assurance Conclusion**

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the reported greenhouse gas emissions, energy production and energy consumption are not prepared, in all material respects, in accordance with Section 19 of the NGER Act, for the period 1 July 2017 to 30 June 2018.

DELOITTE TOUCHE TOHMATSU

P R Dobson  
Partner



**Part B – Detailed Findings**

In accordance with NGER Audit Determination we report our key findings from our limited assurance engagement over CSR's NGER Report.

**Issues requiring particular attention**

None noted

**Aspects impacting on assurance engagement**

None noted

**Contraventions of the NGER legislation**

None noted

**Other matters**

None noted

**Audit Findings and Conclusions Table**

The results that are provided in the table below should not be construed as providing a conclusion on the NGER Report being as a whole, instead they should be read in the context of providing evidence to support the conclusion. These findings, conclusions and recommendations are designed to inform CSR and the Clean Energy Regulator of any compliance issues and will be used, in part, to better inform regulatory decisions and broader advice to the regulated community.

Issue/Risk area investigated	Testing conducted	Findings	Conclusion	Recommendations
<p><b>Operational control/facility boundaries</b></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 2017 NGER Report.</p>	<p>We have:</p> <ol style="list-style-type: none"> <li>1) Reviewed CSR's definition of facilities to ensure that facilities have been determined in accordance with NGER</li> <li>2) Reviewed changes to the corporate structure during the year, and reasons for inclusions and exclusions. We also reviewed the documented position on such changes.</li> </ol>	<p>No material issues were identified.</p>	<p>Risk area has been appropriately addressed as part of our NGER limited assurance engagement.</p>	<p>None.</p>

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**DELOITTE S19 NGER LIMITED ASSURANCE**



Issue/Risk area investigated	Testing conducted	Findings	Conclusion	Recommendations
<p><b>Industrial processes emissions – glass production – Viridian</b> Glass production and processing is an energy intensive manufacturing process and results in emissions through the conversion of carbon oxidation-reduction reactions during the melting phase.</p>	<p>We have:</p> <ol style="list-style-type: none"> <li>1) Reviewed CSR's process used to measure carbonates and carbon oxidation-reduction reaction activity data, and in particular how CSR reconciled the data to operational production reporting outputs</li> <li>2) Conducted a site visit to Viridian's Dandenong site to review the processes on site</li> <li>3) Performed substantive testing of the activity input data focusing on soda ash, dolomite, electricity and natural gas</li> <li>4) Reviewed the calculations of the carbon-oxidation reaction against the requirements stipulated in the NGER Measurement Determination</li> <li>5) Where estimates were used, we reviewed the assumptions used and assessed these for reasonableness.</li> </ol>	<p>No material issues were identified.</p>	<p>Risk area has been appropriately addressed as part of our NGER limited assurance engagement.</p>	<p>None.</p>
<p><b>Industrial process emissions – Bricks</b> The Bricks division has a complex emission profile. Inputs that generate GHG emissions include coal slurry, coal stone and natural gas.</p>	<p>We have:</p> <ol style="list-style-type: none"> <li>1) Assessed CSR's process used to calculate emissions from the inputs into the Bricks and Roofing division, particularly relating to the coal slurry, coal stone, electricity and natural gas.</li> <li>2) Conducted a site visit to the Oxley and Cecil Park sites to review the processes on site</li> <li>3) Assessed the technical measurement</li> </ol>	<p>No material issues were identified.</p>	<p>Risk area has been appropriately addressed as part of our NGER limited assurance engagement.</p>	<p>None.</p>



Issue/Risk area investigated	Testing conducted	Findings	Conclusion	Recommendations
	<p>methodologies and performed a site visit to Oxley and Cecil Park in order to assess the processes in place and considered completeness of emissions sources</p> <p>4) Performed substantive testing of activity data to source documentation such as invoices to ensure that the data is complete and accurate testing of this data.</p>			
<p><b>Industrial process emissions- Insulation</b> The Insulation division generates significant emissions as a result of the manufacture of glass wool particularly relating to the consumption of electricity and natural gas.</p>	<p>We have:</p> <ol style="list-style-type: none"> <li>1) Assessed CSR's process used to calculate emissions from the inputs into the Insulation division, particularly relating to electricity and natural gas.</li> <li>2) Conducted a site visit to Ingleburn to review the processes on site</li> <li>3) Assessed the technical measurement methodologies and performed a site visit to Ingleburn in order to assess the processes in place and considered completeness of emissions sources</li> <li>4) Performed substantive testing of activity data to source documentation such as invoices to ensure that the data is complete and accurate testing of this data.</li> </ol>	<p>No material issues were identified.</p>	<p>Risk area has been appropriately addressed as part of our NGER limited assurance engagement.</p>	<p>None.</p>

**Other matters to be reported**

Nil.



**DELOITTE S19 NGER LIMITED ASSURANCE****Deloitte.****Peer reviewer conclusion**

Name of the peer reviewer	Peter Rupp
Peer reviewer's credentials	Registered Company Auditor
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 limited assurance report above.

*Deloitte Touche Tohmatsu*  
DELOITTE TOUCHE TOHMATSU



P R Dobson  
Partner

Registered Greenhouse and Energy Auditor  
Sydney  
5 October 2018

## CONTACT US

We value your suggestions and comments.  
If you have any queries, please contact us.

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