



Green Star in focus

The case for sustainable industrial buildings



About the Green Building Council of Australia



Established in 2002, the Green Building Council of Australia (GBCA) is the nation's authority on sustainable buildings, communities and cities. Our vision is for healthy, resilient and positive places for people. Our purpose is to lead the sustainable transformation of the built environment.

The GBCA represents more than 550 individual companies with a combined annual turnover of more than \$56 billion. Our membership reflects the diversity of Australian business with more than 400 small-to-medium enterprises, 80 companies with annual turnover of more than \$100 million and 28 companies listed on the ASX200 with a combined market capitalisation of more than \$758 billion. Members include major developers, professional services firms, banks, superannuation funds, product manufacturers, retailers, utilities and suppliers – and together they represent 50,000 people. We also work with 35 local government members, representing 31% of Australia's population, 25 state government departments and land organisations, and 22 universities.

About the New Zealand Green Building Council



Established in 2006, the New Zealand Green Building Council (NZGBC) believes all New Zealanders deserve to be safe, healthy and happy – at home, at school, at work. Everywhere.

The NZGBC represents more than 520 companies and organisations, including government departments, banks, energy companies, insurers, property and construction companies, architects, developers, designers and tertiary education institutions. This includes many of the NZX50. These members have a combined market turnover of \$20 billion. We also work with local government members, representing over 60% of New Zealand's population.

The NZGBC are passionate advocates for better buildings, because we know that better buildings mean healthier, happier Kiwis. We run trusted, robust authentication schemes, such as Green Star and Homestar, that highlight the many buildings that have proven their healthy, safe credentials. And we provide education for hundreds of New Zealanders every year keen to learn about the technical aspects behind better buildings.

Contents

Introduction	01
The challenges	03
The opportunities	06
Case study – Powerful opportunities	08
Why certify industrial buildings with Green Star?	09
Case study – Certifying for greater good	10
Green Star buildings are more cost effective	11
Case study – Reducing resource use, reducing impact	14
Green Star buildings are future-proofed and reporting-ready	16
Case study – Future-proof facilities	19
Green Star buildings attract investment and innovative finance opportunities	20
Case study – Securing sustainability	21
Sustainable buildings are healthier, more productive and more attractive	22
Case study – Delivering for customers, staff, and the environment	23
The cost of delivering Green Star for industrial buildings	24
What actions can industry take?	25
What actions can the GBCA and the NZGBC take?	26
References	28



Introduction

Key logistical and industrial buildings being built in New Zealand and Australia between 2020 and 2030, spanning tens of millions of square feet, and potentially worth trillions of dollars, could risk becoming stranded assets, undesirable for use or investment. In New Zealand alone, industrial buildings worth around NZ\$13 billion¹ are in the pipeline already, and could be affected.

To remain competitive in the Asia-Pacific region and meet Paris Agreement commitments, Australia and New Zealand must shift to a significantly less polluting, lower carbon economy and society by 2050. The science is clear and there is growing financial pressure, political will, public demand, and legislation driving us towards a zero carbon world. Investors that want to avoid being stuck with polluting, undesirable assets, and the financial and reputational damage inflicted by such liabilities, are increasingly looking towards zero carbon buildings. Investors are also becoming more aware that zero carbon buildings can open doors to the growing multi-trillion dollar green bond market, such as the \$600 million Green Bond issued by ANZ in 2015.

Industrial buildings, such as warehouses and cold-store facilities, play a key logistical role in the smooth running of national and regional economies. It's vital that these assets are future-proofed for the impacts of a changing climate and a low carbon economy.



▼ Oakdale South, NSW, Goodman, 6 Star



Kingspan Insulation's new manufacturing facility in Victoria is the latest example of how sustainability is fully integrated in our operations. Achieving a Green Star – Performance certification is one way we demonstrate Kingspan's commitment to being part of the solution to climate change and working towards our own net zero energy and carbon targets as part of our *Planet Passionate* commitment, so we were very pleased to attain a 6 Star rating. Gaining a clear understanding and independent certification of our sustainability performance against a range of metrics is important to our organisation and is becoming increasingly important to our investors and customers.



▲ ABOVE/LEFT: Kingspan Insulation Manufacturing Facility, VIC, 6 Star

The challenges

Leading developers and investors in industrial buildings recognise that if we are to future-proof this sector and achieve its carbon-reduction potential we must deliver buildings that are sustainable. The leaders understand that it is not just enough to say that a building is sustainable, or to deliver a building that meets minimum code requirements with a few sustainability features 'bolted on'.

Truly sustainable buildings must meet best practice benchmarks across a range of categories. Independent certification is the best way for building owners, investors, buyers, tenants or occupants to know that what was promised has been delivered, as well as offering a range of other important benefits.

Increasingly, organisations are looking for ways to ensure that their operations and assets are aligned with their carbon reduction commitments and to demonstrate to their stakeholders that they are serious about corporate social responsibility. Many companies focusing on greater health and well-being for staff are gaining the productivity benefits that come with providing better workplaces.

Some organisations are primarily looking for ways to reduce their operational costs. Green Star certification can help to deliver on all these challenges and more.

Designing, constructing and certifying a high-performing, sustainable building does cost more than building to minimum standards. However, research suggests that overall, green buildings are not necessarily more costly to build than conventional buildings², while GBCA analysis³ shows that certification costs are only a small percentage of the overall project cost and this investment will be paid back many times over in the short, medium and long-term.

Communicating the value of sustainability and third-party certification can sometimes be challenging. There is a growing demand for sustainable assets and most people want to avoid 'greenwash', but this does not always translate to premium sale or lease prices for certified industrial assets.

However, by taking a broader view of the opportunities to deliver value, companies responding to this growing demand are more likely to see financial results. This document helps to make the case for sustainable, independently certified assets and demonstrates how value is delivered in a range of ways.



Sustainability is high on the corporate agenda for businesses like ours. At Goodman we know that reducing the environmental impacts of our properties and ensuring our customers have high-quality, energy efficient spaces is critical to building a sustainable long-term business. Green Star – Performance is an independent tool for assessing carbon, water, waste and the indoor quality of a building. The Green Star – Performance pilot we are undertaking at Highbrook Business Park (Auckland, NZ) allows us to benchmark our assets as we work to improve the environmental performance of the whole portfolio.



▲ John Dakin, CEO, Goodman New Zealand

The opportunities

In the Green Star context, 'industrial buildings' means buildings that are primarily used for warehousing and logistics. These buildings often integrate office accommodation and 'picking and packing' space, and sometimes include buildings where manufacturing, assembly and/or industrial processes take place⁴. A huge variation in building uses and the range of tenants – from multinational organisations to small, local operators – is part of what characterises this sector.

The industrial buildings sector in Australia has seen strong rent growth and a national growth of 21.6% in land values recorded over the year to June 2019⁵. The expanding online retail market is just one reason why millions of square metres of industrial space are projected for development over the next decade.

Meanwhile, the urgency to reduce greenhouse gas emissions (GHG) in the built environment continues to increase as we get closer to the deadlines for emissions reduction targets. While a direct cost has not yet been attached to carbon emissions, the environmental costs, and the risks attached to high-carbon operations, are already beginning to mount. Growth in this sector will provide a significant and valuable opportunity to build better assets which are designed and built to minimise embodied carbon and carbon emissions in operation.⁶

Designing and constructing buildings that have low embodied carbon and that can operate as net-carbon-zero or net-carbon-positive is critical if we are to achieve carbon emissions targets. As we accelerate towards a low carbon economy and society, low and zero carbon buildings are the only choice for investors that don't want to be left with stranded assets.⁷

The World Green Building Trends 2018 report found that green building activity continues to grow across the globe with 'dramatic increases expected in over 20 countries across five continents between now and 2021.'⁸

This is outlined on the table shown on page 12, but also due to the increasing influence of factors such as improving occupant health and well-being and encouraging sustainable building practices. Almost half of global respondents (47%), believe that by 2021 they will be building green for the majority (over 60%) of their projects.

We already know how to deliver sustainable buildings - the technology, design, materials and expertise are available now. As of May 2020, NZ has more than 185 and Australia has over 2600 Green Star-certified buildings. Industrial buildings account for over 300 of these – a figure which is increasing steadily as interest in this sector grows. Many tenants, buyers and investors are asking for industrial assets that include sustainability features.

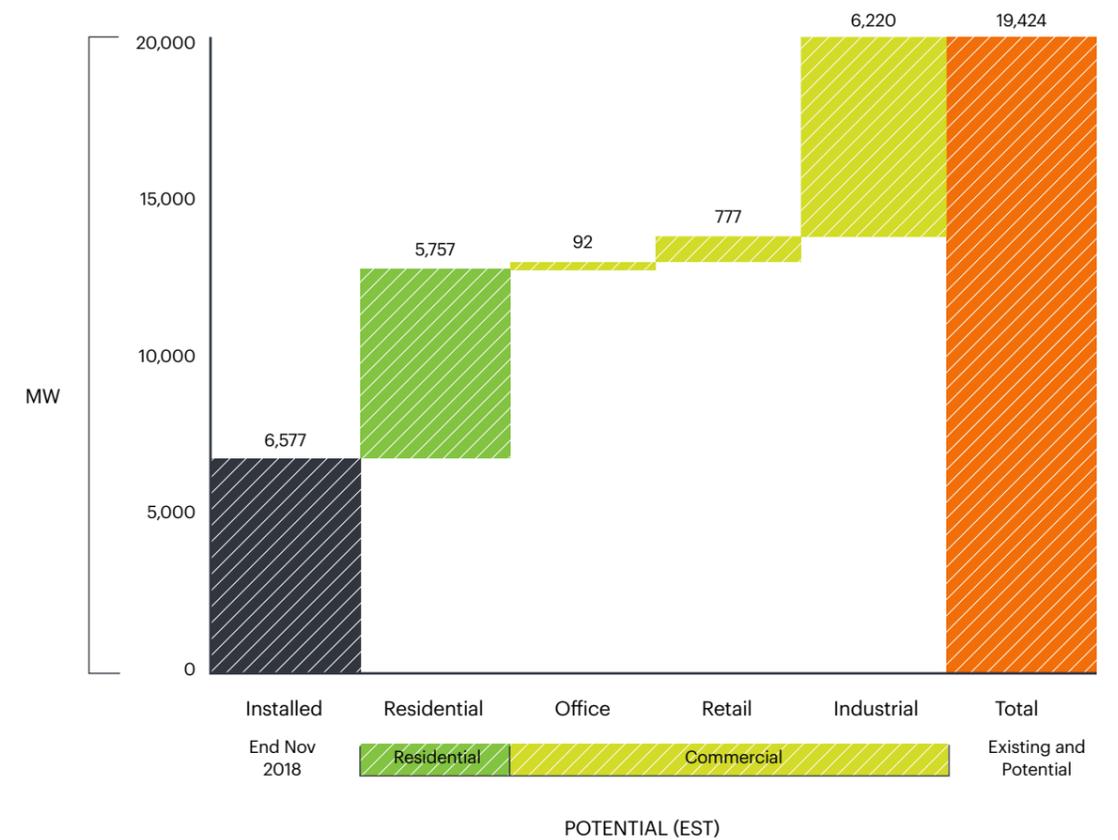
Leading developers report that tenants routinely request LED lighting, rainwater tanks and rainwater reuse, drip irrigation and end-of-trip facilities.

Industrial buildings also offer excellent opportunities for rooftop solar photovoltaic (PV) installation. Reducing energy bills, reliance on the grid and GHG emissions makes solar PV not just a financially attractive decision for developers, owners and tenants, but an important factor in achieving national emissions reduction targets and future-proofing energy supply. A recent report showed that while

the current capacity installed on rooftops across Australia is just over 6,500 Megawatts (MW), the estimated potential is a further 12,800MW. The biggest opportunity by far is in the industrial sector (estimated 6,220MW of potential solar PV capacity).⁹

While increasing uptake of features such as LED lights and solar PV is positive, a holistic approach to sustainability with independent certification provides an even greater opportunity for adding value, increasing operational savings and future-proofing assets.

EXISTING AND ESTIMATED ADDITIONS TO THE INSTALLED SOLAR PV SYSTEMS, BY PROPERTY SUBSECTOR, AUSTRALIA, 2018, MW



GRAPH: *Distribute Energy in the Property Sector – unlocking the potential*
https://www.propertycouncil.com.au/Web/Advocacy/Advocacy_Priorities/Sustainability/Web/Advocacy/Priority/Sustainability.aspx

Powerful opportunities

Charter Hall Australia



CASE STUDY

▼ (GWA) Caroma, M5/M7 Logistics Park, NSW, 5 Star



Charter Hall has recently installed Australia's largest industrial solar power system at the new Woolworths distribution centre in Dandenong South. 3,800 panels on the facility's 1.2 hectare roof will produce 1MW of power. Enough to meet 20% of its energy needs and deliver a return on investment within five years.

Charter Hall has 178 Green Star-rated properties in their property portfolio including 81 industrial facilities. As energy costs grow and their industrial customers increase their focus on sustainability, Charter Hall is working with tenants to implement features such as solar energy and LED lighting upgrades which seek to reduce costs and GHG emissions.

Why certify industrial buildings with Green Star?

Business leaders have a growing financial responsibility to deliver assets that are affordable and represent value for money over the long-term as well as being future-proofed for a changing climate and a low carbon economy. Green Star is an internationally recognised, trusted certification of sustainability for the design, construction and operation of sustainable buildings, fitouts and communities. Green Star certification requires commitment and evidence that a building is designed and constructed to meet industry-agreed best practice benchmarks for sustainability and efficiency.

Green Star provides independent verification that benchmarks have been met, unlike buildings which claim to be green, or claim to be 'designed to' Green Star standards without engaging in the certification process. While there is some flexibility for project stakeholders and not every credit within the rating system is compulsory to achieve, certification encourages and verifies the process behind good design. This will future-proof buildings against the impacts of a changing climate and the rising costs of energy, water, waste and emissions as well as delivering a range of other benefits.



◆ Highbrook Business Park, Contract Logistics, NZ, 5 Star

Certifying for greater good

Australian Prime Property Fund Industrial, managed by Lendlease Funds Management



CASE STUDY

Lendlease's Australian Prime Property Fund (APPF) Industrial was established in 1996 and holds a portfolio of 35 industrial warehouse and logistics properties strategically located in key Australian industrial markets spanning a total area in excess of 600,000m². All eligible assets in the portfolio are certified with a Green Star – Performance portfolio rating and there is a continued focus on progressively certifying assets as they become eligible. APPF Industrial is also committed to achieving net-zero carbon in operations by FY21 and is a business signatory to the World Green Building Council's Advancing Net Zero Carbon Buildings Commitment.

APPF Industrial has a long-established Responsible Property Investment Strategy with environmental, social and governance (ESG) commitments that extend to asset sustainability attributes in design, development and operations. This Strategy also targets customer engagement on ESG themes with Green Star - Performance facilitating greater engagement with customers through the collection of meaningful operational data.

This program has enabled APPF Industrial to measure whole asset performance, identify opportunities and develop strategies to continually improve the performance of the

assets in the fund. Comprehensive data collection allows APPF Industrial to regularly provide feedback to customers on targeted sustainability-related capital expenditure opportunities that support the reduction in use of environmental resources and optimisation of financial savings. This leads to improvements in the quality of the portfolio, operating cost savings for customers and better environmental outcomes.

A key APPF Industrial driver for utilising green building certifications such as Green Star comes from investors who want access to real assets and portfolios with strong ESG alignment and to future-proof their investments in a de-carbonising world.

APPF Industrial believes that using industry-developed and recognised benchmarks like Green Star – Performance and GRESB to measure the performance of the fund's assets fosters greater understanding, trust and confidence between investors and customers. While investors and customers are diverse in their size, needs and aspirations, Green Star – Performance provides a shared goal that helps everyone to understand the benefits of sharing information and improving sustainability outcomes in real assets.

▼ Jonathan Harrison, Fund Manager, APPF Industrial

“ APPF Industrial's vision is to maintain its responsible property investment leadership by delivering effective ESG outcomes across the portfolio. Green Star – Performance enables us to benchmark the environmental performance of our assets and provides a recognised industry standard for investors and customers.

Green Star buildings are more cost effective

Green Star-certified buildings:



use **66%** less electricity than average Australian buildings.



produce **62%** fewer greenhouse gas emissions than average Australian buildings.



use **51%** less potable water than if they had been built to meet minimum industry requirements.¹⁰

New Green Star-certified industrial buildings:



produce **66%** fewer greenhouse gas emissions than standard buildings.¹¹

The World Green Building Council's *Business Case for Green Building* showed that:



a minimal **2%** upfront cost to support green design can result, on average, in life cycle savings of **20%** of total construction costs.¹²

Green Star-certified industrial buildings:



While premiums for the industrial sector are not yet clear in the industry data, some GBCA members report that Green Star-certified industrial assets may attract longer lease terms and are vacant for shorter periods.

Frasers Property Industrial's Green Star industrial facilities are saving tenants on average \$1.11/sqm per year in operational savings when compared with competitors' non-certified warehouses. In a 20,000m² warehouse, this is a saving of around \$24,000 per year when compared with operational costs.



A recent Dodge Data & Analytics report into global green building trends showed the following:

BUSINESS BENEFITS EXPECTED FROM GREEN BUILDING INVESTMENTS
(medians reported in 2012, 2015, 2018)

	New Green Building		
	2012	2015	2018
Decreased 12-month operating costs	8%	9%	8%
Decreased 5-year operating costs	15%	14%	14%
Increased asset value (according to owners)	5%	7%	7%
Payback period for green investment	8 years	8 years	7 years

The report noted that:

... the savings achieved, the payback periods and the increased asset values are strikingly consistent despite the changes in the number of respondents (significant increase), in geographies and in global economic conditions over those years.¹³



▼ Kmart Industrial Facility, NSW, 4 Star

Reducing resource use, reducing impact

Ceres Organics
New Zealand

The Ceres Organics building project earned a 5 Star Green Star certification while reducing its carbon footprint, reducing the use of energy from the grid, reducing potable water consumption, reducing waste to landfill and reducing impact on the local environment. It is the first food warehouse in New Zealand to achieve a Green Star rating.

Built on a brownfield site in Auckland, energy demand has been reduced through features such as building orientation to make the most of passive solar heating and natural light, mixed mode natural ventilation, solar hot water, high performance glass and LED lighting. The building features high levels of exposed concrete which provides thermal mass helping the building to stay warm in winter and cool in summer.

Ceres Organics' Managing Director, Noel Josephson, said sustainability was vital to the company's ethos,

“

Our business is organics, and we're serious about walking the talk on sustainability. So the design and construction of our new building had to have low environmental impact. Our team of 80 staff moved in at the end of 2013 and we're all delighted with the result. We're more than 40% more efficient in terms of energy use than the previous building. It's also a lovely building to work in, with good natural light and fresh air. Getting the Green Star rating is icing on the cake, because it's proof of the high sustainability standard we were aiming for.

To reduce potable water consumption, the building uses water efficient fixtures and fittings and harvests rainwater for toilet flushing and custodial use.

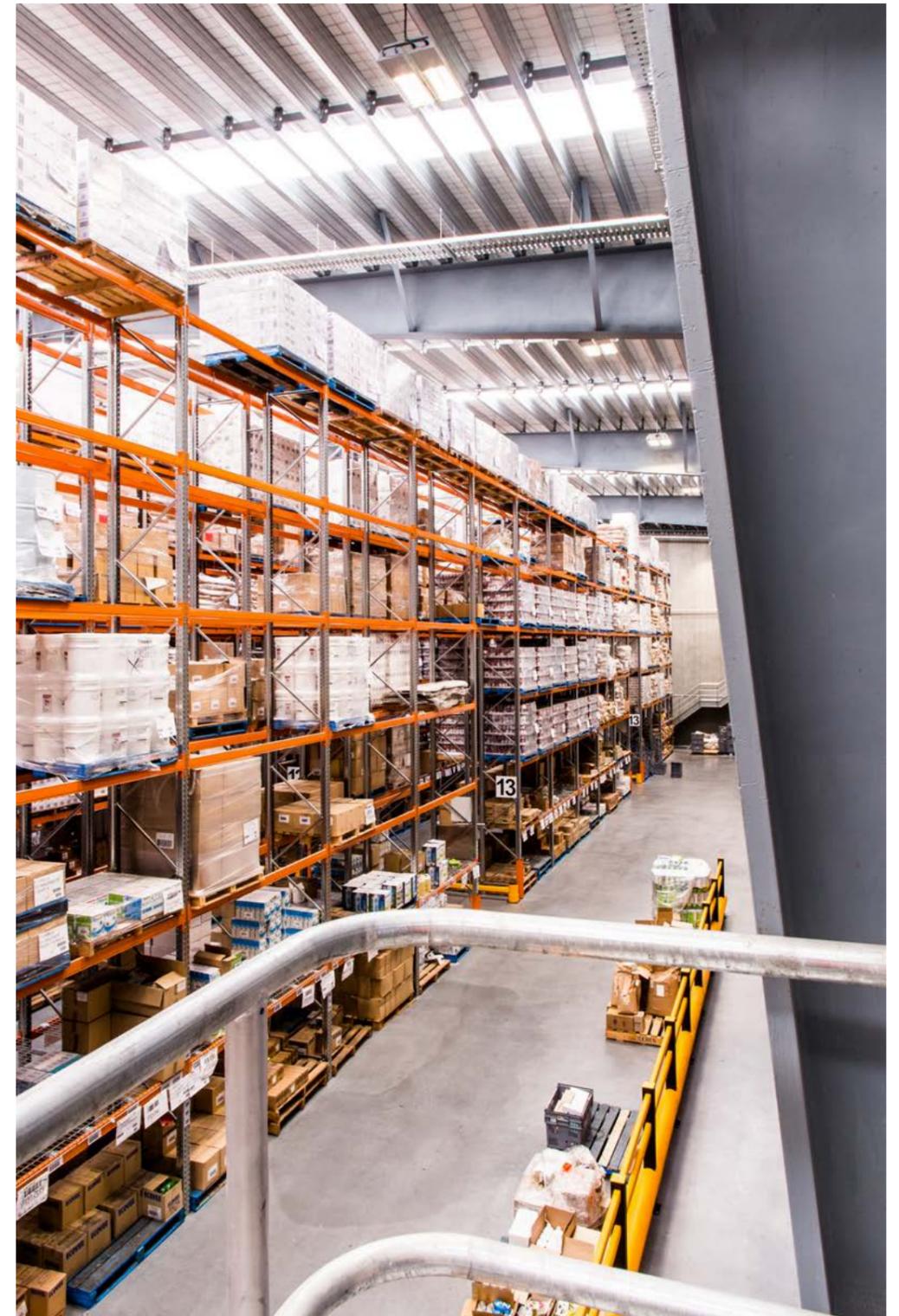
Waste has been reduced through incorporating material recycled from the former derelict building on the site and over 95% of demolition and construction waste was recycled, reused or diverted from landfill. The building includes dedicated receptacles for waste and recycling and worm farms for organic waste.

Alternative modes of transport are encouraged with change facilities and secure bike storage on site, car parking prioritised for car-pooling and fuel-efficient vehicles and the building's proximity to public transport.

From the outset, sustainability was integral to the project and stringent carbon footprinting was used by Ceres to measure the building's carbon impact and performance.



CASE STUDY



▲ Ceres Organics Warehouse Interior, NZ, 5 Star (Photo: Blair Haistings)

Green Star buildings are future-proofed and reporting-ready

Green Star offers organisations the independent, internationally recognised certification they need to have the confidence their assets are future-proofed and reporting-ready under global initiatives such as GRESB¹⁴, the Taskforce on Climate-related Financial Disclosure (TCFD) and the Net Zero Carbon Buildings Commitment.

The United Nations Sustainable Development Goals (SDGs) are also increasingly influencing the way businesses operate, and the way they communicate improvements in performance.

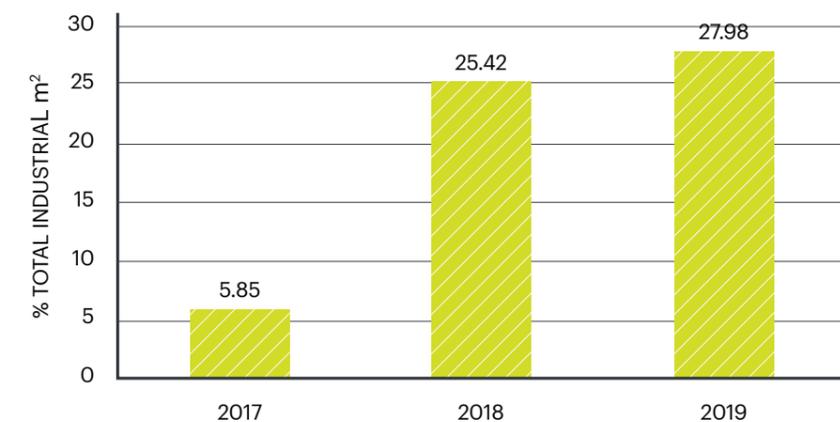
As more organisations respond to their investors' demands for greater clarity and transparency regarding environmental, social and governance (ESG) performance, climate-related risk, or setting their own carbon reduction or net zero goals, they are increasingly using certification systems such as Green Star to demonstrate progress and assurance. Buildings that are not resilient to climate change or changing regulatory and economic environments may end up as stranded assets, or at the very least, uncompetitive in a sector that is beginning to respond to the climate change challenge.

- ◆ Green Star recognises and rewards buildings that are resilient to the impacts of a changing climate and increasing intensity and frequency of natural disasters. Resource-efficient and low carbon Green Star buildings mitigate their risk exposure to future changes in regulation and the costs of carbon emissions.
- ◆ The next generation of Green Star rating tools, currently under development as part of the GBCA's Future Focus program to reshape the rating system, will set the benchmarks even higher. Buildings will need to be designed to withstand climate-related risks, have exceptional resource efficiency, and be net zero carbon or net carbon positive to achieve the highest possible ratings.
- ◆ The Net Zero Carbon Buildings Commitment is part of the World Green Building Council's (WorldGBC) global project to accelerate uptake of net zero carbon buildings to 100% by 2050. Signatories include property developers and investors, banks, consulting firms, local, state and regional governments and many more.¹⁵
- ◆ TCFD was established to develop voluntary, consistent climate-related financial risk disclosures for companies to use in reporting to investors, lenders, insurers and other stakeholders. The TCFD is now supported by over 1000 of the world's leading financial and insurance organisations. In Australia, supporters include the major banks and super funds, insurance companies, property companies and major retailers such as Wesfarmers and Woolworths Group.
- ◆ GRESB is the global benchmark for ESG performance of real assets. In 2019, GRESB assessed 1005 real estate companies and funds from 64 countries, representing more than 100,000 properties and more than AUD \$6 trillion in global assets under management.¹⁶ Australia and New Zealand (Oceania) continue to lead the world with a score of 81, up from 76 last year and ahead of the global average of 72.
- ◆ Green Star has credits which target at least eight of the 17 SDGs; cities and communities (SDG 11); climate action (SDG 13); health and wellbeing (SDG 3); clean and affordable energy (SDG 7); decent work and economic growth (SDG 8); and industry innovation and infrastructure (SDG 9); responsible consumption and production (SDG 12) and life on land (SDG 15).¹⁷
- ◆ The Australian Government's Climate Active Carbon Neutral Standard provides industry a recognised, streamlined and agreed way to be a carbon neutral building in operation. The Green Star – Performance rating tool offers a certification pathway for the standard and buildings can be assessed for Climate Active and Green Star simultaneously.

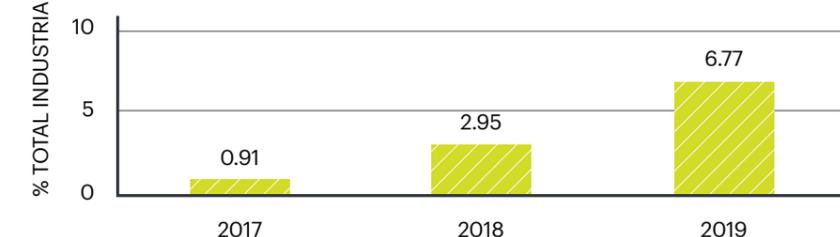
Data from GRESB shows that industrial assets are almost exclusively certified with Green Star in Australia and New Zealand for both construction and in operation. The data also shows that certified floor area has been increasing steadily in the industrial sector, gradually becoming a bigger portion of the total area of property assessed by GRESB.

Graphs (below) show the area of industrial assets in Australia certified with Green Star as a percentage of the total area of assets assessed by GRESB.

CERTIFIED WITH GREEN STAR PERFORMANCE



CERTIFIED WITH GREEN STAR – DESIGN/AS BUILT



In 2019, Goodman Group topped the GRESB Overall Global Sector Leaders in the Developer – Industrial sector.

▼ James Vesper, Group Head of Sustainability, Goodman Group

“ Goodman is very proud to be recognised as GRESB Global Sector Leader this year. It’s a fantastic achievement for us and recognition of the progress our teams are making globally. Most importantly, we see GRESB as a platform where our global portfolio managers can consider what best practice looks like for the industrial sector across the ESG spectrum and target tangible and meaningful outcomes. That’s where the real value is for Goodman.

▼ Metcash NSW Distribution Centre, 4 Star



Future-proof facilities

Stockland Australia



.....
CASE STUDY
.....

Stockland, Toll and Nike have worked together to deliver the first-ever facility in Australia to achieve a whole-of-building carbon neutral certification under the Climate Active Carbon Neutral Standard. The warehouse, custom-built for Toll and Nike and owned by Stockland, also achieved a Green Star – Performance rating – a first for Toll and Nike and Stockland’s first in their logistics portfolio.

Through measures such as upgrading machinery and retrofitting over 1300 LED lights, the facility has halved its electricity consumption and exceeded the GHG emissions reductions required by Climate Active.

“ Achieving these certifications demonstrates the commitment of Stockland, Toll and Nike to sustainability and innovation. We credit the strong partnership between our organisations, and we are pleased to support any of our business customers in realising their environmental objectives. Stockland’s extensive experience with Green Star in other portfolios and Green Star’s alignment with Climate Active was also invaluable to both certification processes.

▲ Greg Johnson, National Sustainability Manager, Stockland

Green Star buildings attract investment and innovative finance opportunities

Green Star certification is aligned with the certification standards of initiatives such as the Climate Bonds Initiative and the Clean Energy Finance Corporation. It offers recognised benchmarking that can be also be used for green loans and sustainability-linked loans. These are avenues for investment and finance that are not available to non-certified assets and portfolios.

- ◆ At least \$44 trillion is now held in sustainable investments around the world, up 34% from 2016 according to the Global Sustainable Investment Alliance.¹⁸ ESG principles now guide a quarter of assets under management and this flood of capital is driving demand for green building ratings.¹⁹
- ◆ The Climate Bonds Initiative is an international organisation that works to mobilise the \$100 trillion bond market for climate solutions. Certified green buildings provide assurance that a project or asset will meet the objectives and eligibility requirements of a bond issued under the Climate Bonds standard. There have already been a number of green bonds issued in Australia and New Zealand which are intended to finance a range of projects and assets including low carbon commercial buildings.

- ◆ The Clean Energy Finance Corporation uses its \$10 billion fund to invest in clean energy and low carbon projects on behalf of the Australian Government. Investments include a wide range of sustainable buildings including Green Star projects and industrial buildings.
- ◆ The Royal Institution of Chartered Surveyors' report, *Green Value: Growing Buildings, Growing Assets*²⁰ found that assets employing green building practices that increase energy efficiency and reduce greenhouse gas emissions, are more likely to attract grants and subsidies.

To learn more about opportunities for accessing sustainable finance please see the *Sustainable finance guide* available at gbca.org.au

Securing sustainability

Frasers Property Australia



CASE STUDY

▼ Horsley Drive Business Park, NSW, Frasers Property Industrial, 6 Star



In 2019, Frasers Property Australia (FPA) secured a \$600m 'sustainability-linked loan', the first loan of its kind in Australia. The loan offers a favourable margin of 135 basis points over the usual base rate, with the opportunity for a further reduction of up to five basis points in the second year if FPA consistently maintains a top score on its sustainability performance.

While green loans raise funds for specific environmental assets or projects, sustainability-linked loans can cover a broader range of issues such as social equity, health and productivity, governance and stakeholder engagement.

Sustainability-linked loans are new to the Asia-Pacific region, but globally they are gaining momentum with a total value of around US\$35 billion in loans reported in 2018.

Sustainable buildings are healthier, more productive and more attractive

People are becoming increasingly aware of the benefits of a healthy and sustainable workplace. Many also prefer to seek work with organisations with genuine commitment to corporate social responsibility and sustainability. Healthy, happy, productive staff are always an organisation's most valuable asset. Attracting and retaining the best people, and helping to ensure their health, wellbeing and productivity have a significant impact on the bottom line. Harvard University research found that when conditions were controlled to improve indoor air quality, occupant productivity improved by more than 26%.²¹

In a range of green-rated offices, pre- and post-occupancy studies published by the WorldGBC illustrate:

-  A **27%** reduction in staff turnover, as well as high levels (over 90%) of employee satisfaction in their workplace
-  A **64%** reduction in reported allergy problems and a **68%** reduction in reported respiratory problems
-  A reduction of four sick days per employee per year
-  A **19%** reduction in absenteeism and a **16%** reduction in presenteeism.²²

▼ Nick Deligiannis, Managing Director, Hays Australia & New Zealand

“A green workplace can benefit staff attraction and retention, but the key is to be authentic. Organisations that overstate their green credentials leave themselves vulnerable to accusations of so-called greenwashing, which will have huge impact on their employer brand and ability to attract top talent.”

Delivering for customers, staff, and the environment

Mighty Ape
New Zealand



▼ Mighty Ape, Silverdale NZ, 5 Star



CASE STUDY

In 2019, a property owned by Argosy and tenanted by Mighty Ape in Silverdale, NZ, achieved a 5 Star Green Star certification. Just the third industrial building in NZ to gain a Green Star rating, the project delivers energy and water savings as well as a safe and healthy environment for staff.

Peter Mence, Chief Executive Officer of Argosy said, “The rating continues to endorse the quality of our properties and our focus on greening the portfolio.”

“We initially targeted a 4 Star Rating but by employing some creative thinking

in our approach to design and build, we obtained the additional credits to allow us to get to 5 Stars. I’m really pleased for the Argosy team, our investors and especially our tenant. Without Mighty Ape’s commitment to the proven benefits of green buildings, none of this would be possible.”

Looking ahead, we’ll continue to focus on sustainability and green developments. With the support of our tenants, we’ll keep transitioning our Value Add properties into higher quality environments for them and their staff.”

“Operating a facility built to this standard illustrates our commitment to aligning ourselves with the sustainability goals of our customers.”

▲ Alastair Burns, General Manager of Mighty Ape.

The cost of delivering Green Star for industrial buildings

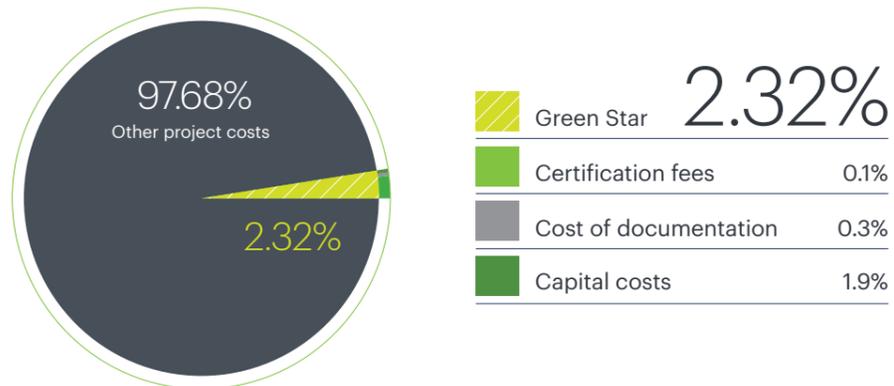
The Green Star process is continuously improved and streamlined, but of course there is a cost involved in achieving certification. GBCA analysis shows that this is a small percentage of the total value of the project²³ and as this document demonstrates, achieving an internationally recognised, third-party certification such as Green Star, delivers value in many ways.

Data collected from Green Star-certified projects shows that for

industrial buildings the cost of a Design & As Built certification is, on average, 2.3% of the project budget (0.7% for 4 Star, 2.5% for 5 Star and 1.9% for 6 Star).²³ This equates to \$19 per square metre. Whilst it appears counterintuitive that 6 Star ratings cost less to deliver than 5 Star, discussions with industry indicate that sustainability leaders in this sector are implementing 6 Star Green Star with well-integrated processes on large facilities to achieve benefits of scale.

GBCA analysis of 4 Star Green Star Industrial projects shows certification costs average only 0.7% of total project costs.²³

GREEN STAR AS A PERCENTAGE OF INDUSTRIAL PROJECT COSTS:²³



While the capital costs of adding features such as solar energy, rainwater harvesting and end-of-trip facilities accounts for an average of 1.9% of the total reported project costs, GBCA members report that more and more developers and tenants are choosing to include such features even if they do not plan to certify.

If these capital investments are considered separately, the cost of Green Star certification becomes very low indeed, especially when you consider the value of certification in respect to ESG reporting, future-proofing investments, attracting innovative investment and attracting and retaining staff.

What actions can industry take?

We must act swiftly to ensure our industry plays its part in global efforts to avoid catastrophic global warming. Those who adapt and act now will have the most to gain as the world places increasing value on assets and organisations that contribute to the solution. There are many ways developers, investors, tenants and others can future-proof their assets and portfolios while helping to transform the industry and accelerate it towards a zero carbon future, including:

- ◆ Commit to relevant industry roadmaps and initiatives seeking to achieve zero carbon, such as the WorldGBC's Zero Carbon Building Commitment, the GBCA's Future Focus program and the NZGBC's Zero Carbon Road Map for Aotearoa's Buildings.
- ◆ Commit to using Green Star on new buildings, fitouts and communities and for managing the sustainability of existing assets.
- ◆ Report on asset portfolios and operations through initiatives such as GRESB and TCFD. Green Star certification for building assets will support and underpin this reporting as well as delivering a huge range of benefits.
- ◆ Require disclosure of supply chain information for inputs to construction and building operation.
- ◆ Explore sustainability-linked financial instruments when raising funds and seeking investment for projects.
- ◆ Commit to discussing your sustainability vision and goals with your own clients, investors, supply chain and other stakeholders to raise awareness about net zero initiatives and Green Star.



▼ The Key Spec 1, VIC, 5 Star

What actions can the GBCA and NZGBC take?

The GBCA and NZGBC have an important role to play in supporting industry transformation. There are many ways we do this, including:

- ◆ Showcase Green Star industrial buildings that are future-proofed, saving money, saving the environment and providing healthy, safe workplaces.
- ◆ Research and communicate the value and benefits delivered by Green Star-certified buildings to a range of stakeholders including developers, investors, tenants, property agents and valuers and importantly, the people in the wider community who work in these buildings. For more about the benefits of Green Star, please see *Green Star in focus: The case* available at gbca.org.au.
- ◆ Improve and simplify the Green Star certification process and to research and reduce the costs of Green Star certification.
- ◆ Champion the WorldGBC's Net Zero Carbon Buildings Commitment.
- ◆ Drive the Future Focus program to deliver a Green Star rating system that is more accessible, relevant and ready to meet the challenges of today and the future.
- ◆ Deliver events and professional development opportunities to upskill people in the property and construction sector.
- ◆ Engage with government to advocate for policies that will encourage and deliver healthier buildings and communities.

▼ Lot 12, TradeCoast Central, QLD, 4 Star



About Green Star

Green Star assesses the sustainable design, construction and operation of buildings, fitouts and precincts. Choosing Green Star can help you save money, create a healthy place for people, minimise your environmental footprint and build a better future for us all.

Launched by the GBCA in 2003, Green Star is an internationally recognised, holistic and voluntary rating system for buildings and communities. Green Star is used in New Zealand and Africa as well as Australia to help improve environmental efficiencies in our buildings, while boosting productivity, creating jobs and improving the health and well-being of our communities.

A Green Star certification provides a recognised common language to describe how to achieve world-leading benchmarks for sustainability across a wide range of categories. It provides independent assurance that benchmarks have been met to an agreed standard.

Green Star can be applied to every building type and master planned communities through four different Green Star rating tools. The Green Star rating tools are flexible and can be applied to single projects, achieve economies of scale using a volume-based approach, or applied across a portfolio of assets.

For more information about the Green Star rating system, visit gbca.org.au or nzgbc.org.nz.



References

1. Pacifecon. 2019. *Analysis of unpublished proprietary data.* (p.01)
2. Rehm, M & Ade, R. 2013. Construction costs comparison between 'green' and conventional office buildings, *Building Research & Information*, 41:2, 198-208. (p.03)
3. GBCA. 2020. *Green Star in focus: The business case.* (p.03)
4. Please note that the impact of manufacturing process undertaken within these buildings do not fall within the scope of the rating. (p.06)
5. M3property. 2019. *M3property Insight – Australian Industrial – Winter 2019.* Retrieved from <https://m3property.com.au/wp-content/uploads/2019/07/National-Industrial-Winter-2019-160719-Press-Quality.pdf> (p.06)
6. McKeown, R. <https://theurbandevolver.com/articles/industrial-sentiment-shines-light-in-dark-times> (p.06)
7. Muldoon-Smith, K., & Greenhalgh, P. <https://www.sciencedirect.com/science/article/pii/S2214629618309599> (p.06)
8. Dodge Data & Analytics. 2018. *World Green Building Trends 2018: Australia.* (p.06)
9. Seed Advisory. 2019. *Distributed energy in the property sector: Tomorrow's opportunity. Report for the Clean Energy Finance Corporation and Property Council of Australia.* Retrieved from <http://info.propertycouncil.com.au/property-australia-blog/unlocking-the-potential-of-distributed-energy> (p.07)
10. GBCA. 2012. *The value of Green Star: A decade of environmental benefits* (p.11)
11. GBCA. *Additional data analysis* (2019) (p.11)
12. World Green Building Council. 2013. *The business case for green building – A review of the costs and benefits for developers, investors and occupants.* Retrieved from https://www.worldgbc.org/sites/default/files/Business_Case_For_Green_Building_Report_WEB_2013-04-11-2.pdf (p.11)
13. Dodge Data & Analytics. 2018. *World Green Building Trends 2018: Australia.* (p.12)
14. <https://gresb.com/faq/> (p.16)
15. World Green Build Council. *Webpage - The Net Zero Carbon Buildings Commitment.* Retrieved from <https://www.worldgbc.org/thecommitment> (p.16)
16. GBCA. 2019. <https://new.gbca.org.au/news/gbca-news/australia-continues-lead-following-2019-gresb-results/> (p.16)
17. United Nations. <https://www.un.org/sustainabledevelopment/sustainable-development-goals/> (p.16)
18. Landberg, R., Massa, A., Pogkas, D. 2019. *Green finance is now \$31 trillion and growing.* Retrieved from <https://www.bloomberg.com/graphics/2019-green-finance/> (p.20)
19. Kell, G. 2018. *The remarkable rise of ESG.* Retrieved from <https://www.forbes.com/sites/georgkell/2018/07/11/the-remarkable-rise-of-esg/#5288b9541695> (p.20)
20. Davis, R. 2005. *Green Value: Growing buildings, growing assets: Report.* Retrieved from <http://www.rics.org/NR/rdonlyres/93B20864-E89E-4641-AB11-028387737058/0/GreenValueReport.pdf> (p.20)
21. Allen, J.G., MacNaughton, P., Satish, U., Santanam, S., Vallarino, J., & Spengler, J.D. 2016. Associations of Cognitive Function Scores with Carbon Dioxide, Ventilation, and Volatile Organic Compound Exposures in Office Workers: A Controlled Exposure Study of Green and Conventional Office Environments. *Environmental Health Perspectives*, 124. Retrieved from <https://ehp.niehs.nih.gov/15-10037/> (p.22)
22. Laski, J., World Green Building Council. 2018. *Doing right by planet and people – The business case for health and wellbeing in green building.* (p.22)
23. GBCA. 2020. *Green Star in focus: The business case.* (p.24)