



Commercial Real Estate Sustainability Report 2023

October 2023

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DISCLAIMER

REIA is a federation of state and territory Real Estate Institutes. Formed in 1924, it represents the real estate industry in Australia at national and international levels.

Real Estate House
16 Thesiger Court, Deakin, ACT
PO Box 234, Deakin West, ACT 2600
Phone: (02) 6282 4277
Website: www.reia.com.au
Email: reia@reia.com.au

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PRESIDENT'S FOREWORD



Dear valued stakeholders,

With Australia committed to transitioning to a NetZero economy by 2050, commercial practitioners will be at the coal face of managing the impacts of this.

Getting the right information and expertise for our industry; and your clients will be absolutely critical to achieving success through this transition.

This foundation report - the REIA Commercial Real Estate Sustainability Report 2023 - takes a particular focus on the main implementation challenges our commercial sector - including our tenants and clients - will face.

It identifies an initial range of strategies for consideration to aid transition from 2023 onwards for practitioners, investors and occupiers.

Excellence in information is a critical part of REIA's Project CRE and we look forward to more practical strategies to help this critical component of Australia's economy move forward.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'Hayden Groves'.

Hayden Groves
President
Real Estate Institute of Australia

SPONSOR'S FOREWORD



It is a great honour and privilege to partner with the Real We take great pride in our alliance with the Real Estate Institute of Australia, sharing a common commitment to enriching the commercial real estate sector through Project CRE. Together, we aim to promote growth through advocacy, sharing insights, education, and transformative initiatives.

At Re-Leased, we are passionate about shaping the future of commercial real estate to achieve better outcomes for people, properties, and the planet. We are at a pivotal moment in the Australian commercial real estate landscape, marked by a strong commitment to achieving a NetZero economy by 2050.

The importance of sustainability and effective management of the built environment has never been greater. This Sustainability report represents a significant milestone, providing valuable insights into the challenges and strategies in sustainable commercial real estate for owners, tenants, and practitioners alike.

As REIA's trusted technology partner, we look forward to supporting our community, continuing to drive innovation in property management, and positively impacting the future of commercial real estate in Australia.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'Tom Wallace'.

Tom Wallace
Chief Executive Officer
Re-Leased

AUSTRALIAN COMMERCIAL REAL ESTATE SUSTAINABILITY OPERATING ENVIRONMENT

PART 1: WHERE WE ARE AT The Economics and Regulation of ESG

Consumer preferences are shaping around the regulatory outlook

The regulatory outlook is determining market behavior

Office

Emissions reduction through their office space occupancy will be highly sought after by tenants.

All CBD office markets, with the exception of Brisbane, have recorded lower vacancy in prime grade space.

Industrial

Preferences are shaping for investment in inner urban, brownfield sites that are close to consumers to reduce emissions.

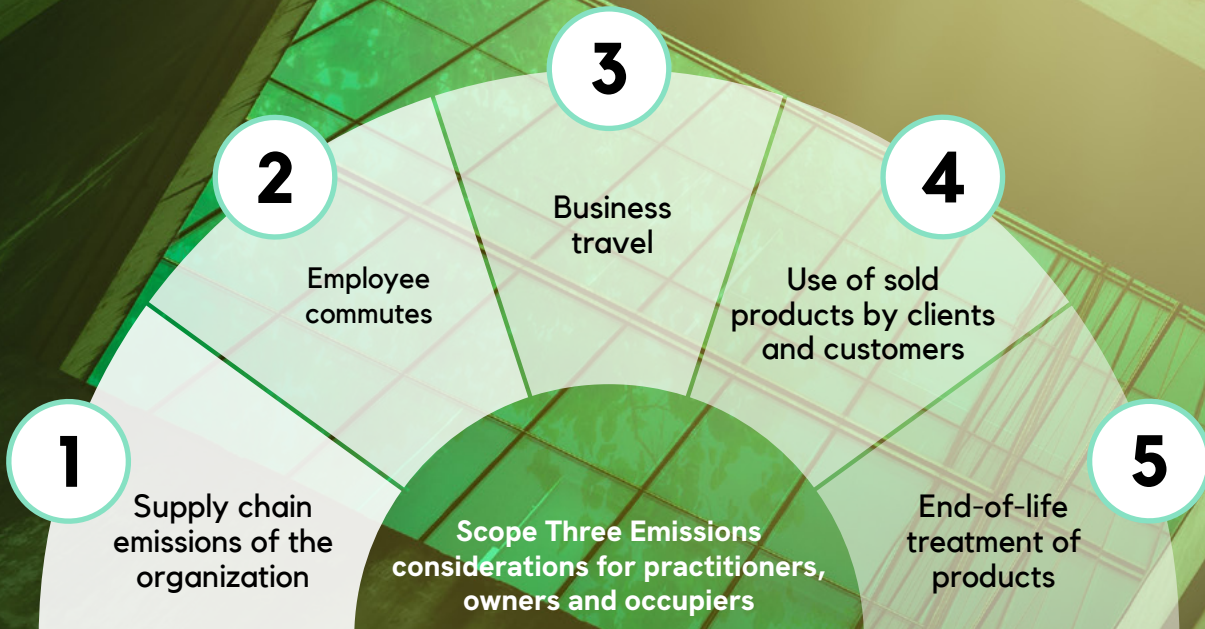
43%

EMISSIONS REDUCTION LEVEL BY 2030 FROM 2005 BASELINE

2050

AUSTRALIA'S NETZERO TARGET

PART 2: WHERE WE ARE GOING



PART 3: STRATEGIES TO ADAPT AND IMPROVE OUR COMMERCIAL REAL ESTATE

MID TERM

3 mid term strategies to aid commercial real estate decision making:

1. Assessing the role of embodied carbon for existing commercial stock and new developments



2. Utilisation of carbon offsets



3. Sustainable cleaning



LONG TERM

12 long term strategies to improve commercial real estate:

1. Energy Efficiency Improvements



2. Renewable Energy Integration



3. Building Automation and Controls



4. Energy-Efficient Appliances and Equipment



5. Water Conservation



6. Green Building Certifications



7. Waste Management and Recycling



8. Indoor Air Quality Improvement



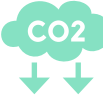
9. Tenant Engagement and Education



10. Green Roof and Landscaping



11. Carbon Offsetting and Mitigation



12. Regular Monitoring and Reporting



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Part 2 / Mid term considerations for owners	5-10
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INTRODUCTION

In recent years, the Australian commercial property industry has undergone a profound transformation, one that transcends traditional notions of profit and growth.

This seismic shift is driven by a growing awareness of the critical need for sustainability as Australia's economy transitions towards its now confirmed NetZero 2050 target.

Sustainability has emerged as a central pillar of the Australian commercial property sector, fundamentally altering the way businesses design, construct, operate, and invest in real estate; and shaping the preferences of both tenants and investors.

NET ZERO

The Australian Government is developing a Net Zero 2050 plan, as outlined in their 2022 Annual Climate Statement to Parliament and consistent with the recommendations of the Climate Change Authority (CCA). In 2022, they legislated Australia's greenhouse gas emission targets reach Net Zero by 2050. By 2030 Australia aims to reach emission levels of 43% below 2005 levels. Australia is also a party to the Paris Agreement.

Source: Australian Government, Department of Climate, Energy, the Environment and Water

This transformation is not merely a response to changing consumer preferences or regulatory pressures, rather, it reflects a broader recognition of the industry's profound impact on the environment, society, and the global economy.

REIA Commercial Real Estate Sustainability Report 2023 explores ways in which the commercial property industry is changing, and will continue to change, as our economy and Australia's consumer base gears up to decarbonize. Central to this, will be the adoption practice of owners in the mid to long term to adapting their spaces to consumer demand; but also, what Australia's emissions targets will dictate.

¹*The Bruntland Report - Our Common Future. Available: Our Common Future: Report of the World Commission on Environment and Development (un.org)*

Part One:

Emissions targets and
the role of commercial
property



EMISSIONS TARGETS

The role of commercial property

An understanding of the Australian Government's Scope 3 emissions targets and how this will change the operation of commercial properties is a very good place to start the discussion on sustainability.

Scope 3 emissions targets refer to goals and objectives set by organisations to reduce or mitigate their indirect greenhouse gas emissions. These emissions are generated not as a result of an organisation's activities but occur from sources not owned or controlled by the organisation.

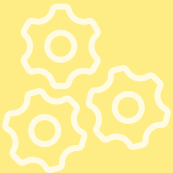
With many organisations of all size persuasions - small, medium and large - focusing on Scope 3 emissions to reduce their overall negative impact on climate change, the commercial property that organisations occupy has swiftly become a key focus for tenants.

Scope 3 emissions are indirect emissions that occur as Commercial property has a role to play in reducing emissions in all these areas. Those investors that can most successfully demonstrate their ability to allow their tenants to reduce emissions through Scope 3 sources will see the benefits flow through increased tenant demand.
Office

While there are a multitude of reasons that tenants prefer prime grade office space over secondary grade, anecdotally, one of the major drawcards of better-quality space is the ability of tenants to reduce their emissions through their office space occupancy.

As of June 2023, all CBD office markets, with the exception of Brisbane, recorded lower vacancy in prime grade space compared to their secondary grade markets.

SCOPE 3 EMISSIONS CAN INCLUDE:



SUPPLY CHAIN EMISSIONS

Emissions associated with the production and transportation of goods and services used by the organization.



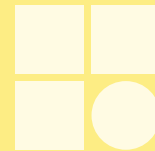
EMPLOYEE COMMUTING

Emissions from employees' commuting to and from work.



BUSINESS TRAVEL

Emissions from flights, hotel stays, and other travel-related activities.



USE OF SOLD PRODUCTS

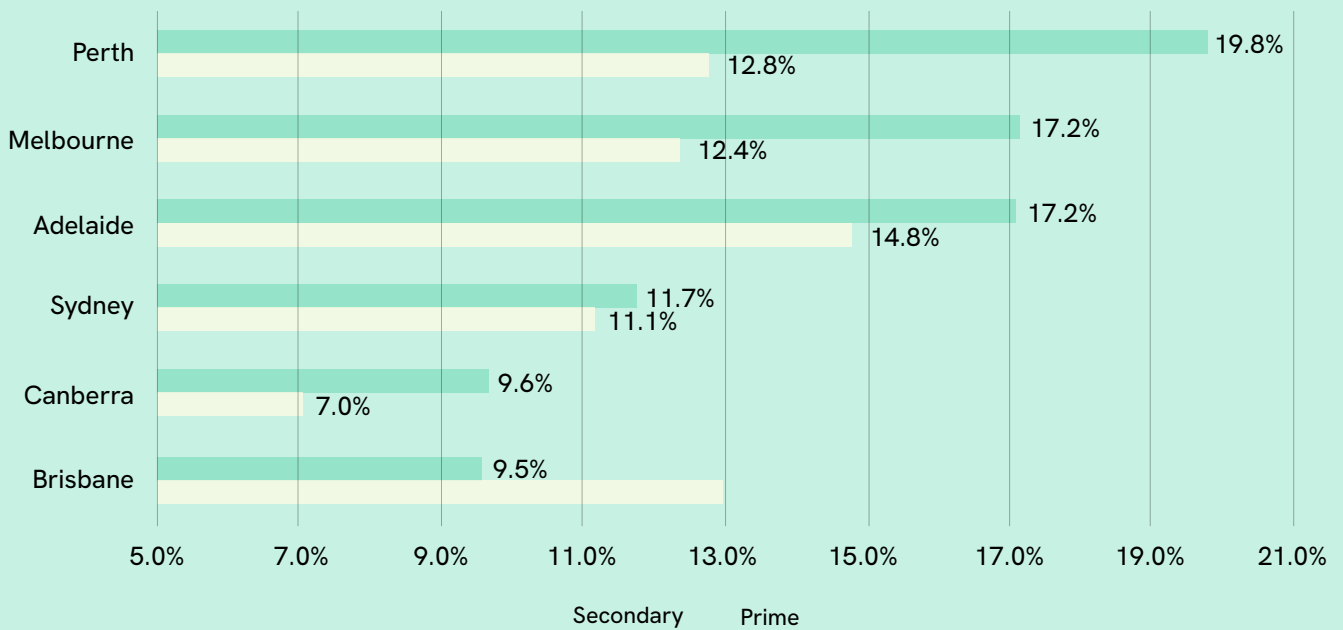
Emissions generated when customers use the products or services sold by the organisation.



END-OF-LIFE TREATMENT OF PRODUCTS

Emissions related to the disposal or recycling of products at the end of their life cycle.

CBD Office Vacancy by Grade



Source: Colliers Research, CBD Office Snapshot, Q2 2023



CASE STUDY: Centuria Capital has recently secured a \$500 million institutional investment mandate on behalf of a US private investment firm that will focus on acquiring assets within supply constrained industrial markets across Australia. It will be known as the Last Mile Logistics Partnership, (LMLP) and it has started with a \$76 million three-asset portfolio of properties located within urban Melbourne industrial precincts.

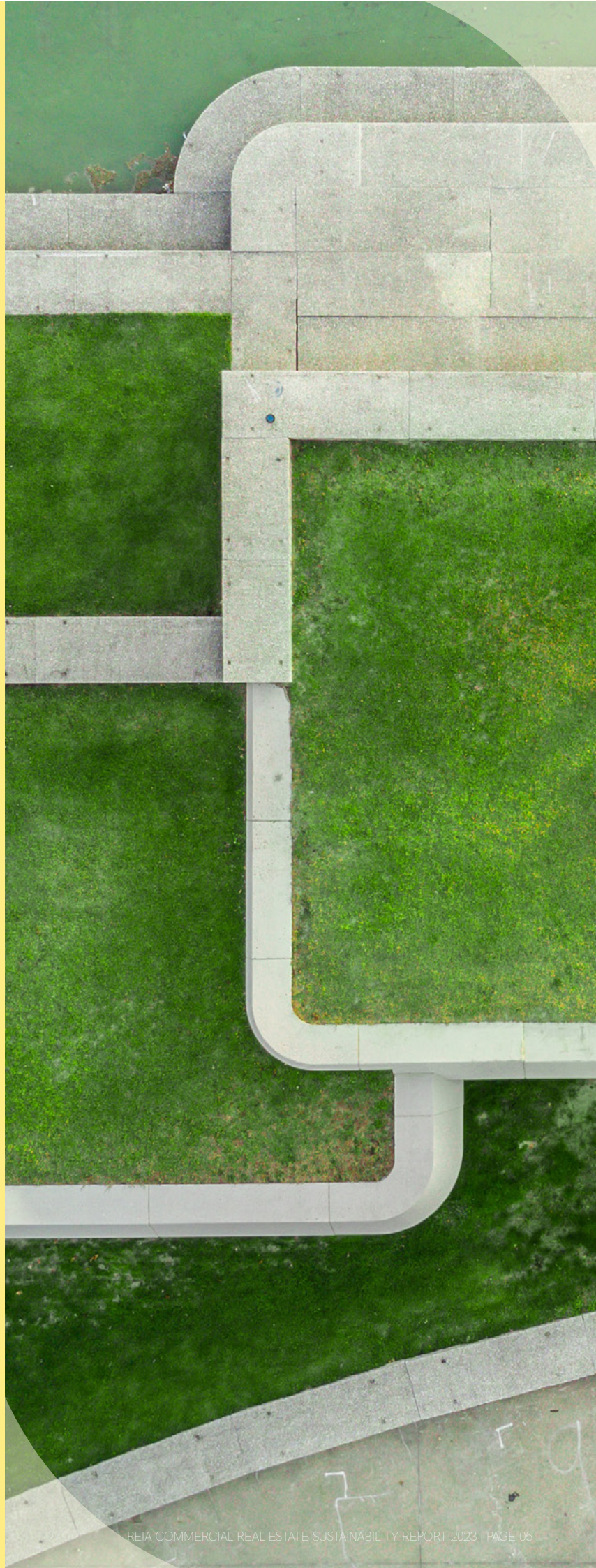
CASE STUDY: Goodman Group, one of the world's most successful industrial developers and owners, owning strategically located properties close to consumers in key global markets is a material driver of their Sustainable Properties and Places initiative. Goodman have recently completed Eumemmering Business Park, which maintained existing buildings and targets a 5 star green star rating. The project site boasts of above industry standard offering in sustainability with more than 98 per cent of demolition waste diverted from landfill, a 999 kilowatt (kW) solar array and electric vehicle charging have been installed.

Other sustainability features include:

- 999kW solar system
- LED lighting throughout
- electric vehicle charging
- access to natural light and fresh air
- sustainable native landscaping
- 40 kilolitre rainwater tank
- water efficient fixtures and fittings

Part Two:

Mid-term
considerations
for owners



MID-TERM CONSIDERATIONS FOR OWNERS

Consideration 1: Embodied carbon and its impact on the construction cycle, new developments and the existing inventory

Embodied carbon in the context of commercial property refers to the total amount of carbon dioxide (CO₂) emissions associated with the entire lifecycle of a building, including its construction, operation, maintenance, and eventual demolition or deconstruction.

This concept considers not only the direct emissions produced during the building's operational phase (such as energy consumption for heating, cooling, and lighting) but also the indirect emissions generated during the manufacturing of construction materials, transportation, and other related activities.

The concept of embodied carbon recognizes that a significant portion of a building's carbon footprint comes from activities that occur before it even becomes operational. This includes the production of construction materials like concrete, steel, glass, and insulation, as well as the transportation of these materials to the construction site. These processes consume energy and emit CO₂ and other greenhouse gases.

The consideration of embodied carbon by the commercial property industry will have profound implications for the next construction cycle. No longer will developers simply consider the cost considerations when choosing the highest and best use for their commercial land. More and more developers will consider the CO₂ produced by any future development, and ways to potentially reduce this impact by repurposing existing built form.

CASE STUDY: Health fund Australian Unity recently redeveloped a St Kilda Road office block into two retirement and aged care buildings, The Alba and The Grace.

While retaining the asset as an office building would have cost roughly half as much, Australian Unity had adopted a long-term view that considered the environmental, community and social values of the redevelopment.

Australian Unity engaged WT Partnership to provide advice on carbon that was saved by retrofitting the existing building, compared to building new. It was estimated that 3,380 tonnes of CO₂ emissions was avoided by taking the adaptive re-use approach.

MID-TERM CONSIDERATIONS FOR OWNERS

New developments

For new developments, several considerations can be made by the developers and builders that can reduce the embodied carbon of commercial properties. These include:

1. Material Selection: Choosing construction materials with lower carbon emissions, such as recycled or locally sourced materials, can significantly reduce embedded carbon.

2. Energy-Efficient Design: Designing buildings to be energy-efficient from the start can reduce the emissions associated with heating, cooling, and lighting during the operational phase.

3. Prefabrication and Modular Construction: Prefabricated building components and modular construction techniques can reduce the energy and emissions associated with on-site construction processes.

4. Lifecycle Assessment: Conducting a comprehensive lifecycle assessment of a building can help identify opportunities to reduce emissions at different stages, from construction to demolition.

5. Renewable Energy Integration: Incorporating renewable energy sources like solar panels or wind turbines into the building's design can reduce the emissions associated with energy consumption.

6. Sustainable Transport: Minimizing the distance for material transportation and encouraging sustainable transportation options for workers can help lower emissions.

As environmental awareness, sustainability practices and the regulatory environment demands it, it is anticipated these considerations will continue to gain traction.

Addressing embodied carbon will likely become a more integral part of the real estate and construction industries.

CASE STUDY: Goldfields Group completed the development of their prime grade office building in Melbourne's South Yarra in 2022.

Rob Granger, Project Director, Goldfields Group, ensured the building was fitted with the latest energy efficient fixtures and fittings to achieve 5-star Green Star rating. To reduce the embodied carbon in the development of the building, steel was sourced from responsible steel makers, and at least 95 per cent of the timber used in the project was certified by a forest certification scheme.

High performance water fixtures and fittings were also used, including minimum 5-star WELS rated taps, 4 star rated water closets and Urinals, 3-star showers.

To reduce load on the HVAC system, blower door testing was conducted to ensure an air infiltration rate of less than standard buildings. This results in less conditioned air being lost through the building façade and results in improved energy savings and occupant comfort. High quality End of Trip facilities were also built into the design, including direct building access for bicycles, to encourage more sustainable methods of transport for occupiers.

Energy usage reductions, based on modelling conducted by ESD Engineer Stantec, of 36 per cent for electricity, and 29 per cent for natural gas.

Consideration 2: Adaptive re-use of unproductive commercial buildings

As office tenants in Australia continue to demand less secondary grade, older style office space that doesn't meet contribute to Scope 3 emissions targets, the question then is what becomes of these buildings.

Considering both the embodied carbon within these buildings, as well as the extraordinary replacement cost thanks to construction pricing inflation, attention is now turning to adaptive reuse of these buildings.

The shortage of housing in Australia (and, indeed, other major cities around the world) is leading to much discussion of adapting these buildings for residential purposes.

However, as Associate Professor Philip Oldfield from the UNSW's School of Built Environment says, "Office buildings are fundamentally different in terms of space - they are typically big and open and deep - and this impacts their ability to meet the architectural and design needs of residential space," he says. "This frequently translates to long thin apartments with limited access to natural light and restricted access to ventilation, both of which are important for comfort, health, and wellbeing. Often this also means apartments with windowless bedrooms."

One realistic solution for Australian properties is to reuse existing secondary office for another commercial use. Quay Quarter Tower on Bridge Street, Sydney, is the best recent example of the adaption of an existing office building into a modern, high quality Premium grade office. The existing building was a 46 storey office tower completed in 1976.

The building, while well located in Sydney's core office precinct, attracted limited tenant demand due to its small floorplates. The recent \$600 million transformation—designed by Danish firm 3XN—retains nearly all the existing tower's structure, reusing 95 percent of its core and 65 percent of its beams, columns, and slabs. The scheme, developed in partnership with architect of record BVN, more than doubles usable floor area, to 90,000sqm. But, most notably, at least from a climate perspective, the upcycling strategy saved 12,000 metric tons of embodied carbon—greenhouse-gas emissions equal to those produced, the architects say, by 8,800 flights between Sydney and Copenhagen³.



Consideration 2: Carbon offsets – what is it and how much will it cost?

According to Slattery’s ‘Carbon Offsets: Property’s Next Big Cost’ report (September 2022) ‘the price of carbon offsets has risen from \$15 per tonne in mid 2020 to around \$35 today (Sept 2022). While the price fluctuates, increasing demand from businesses needing to meet or maintain carbon neutrality or net zero, means the price is likely to rise substantially over the next five years.

The chart below, sourced from the Australian Clean Energy Regulator, shows just how significantly demand for, and trading in, Carbon Credit Units has increased.

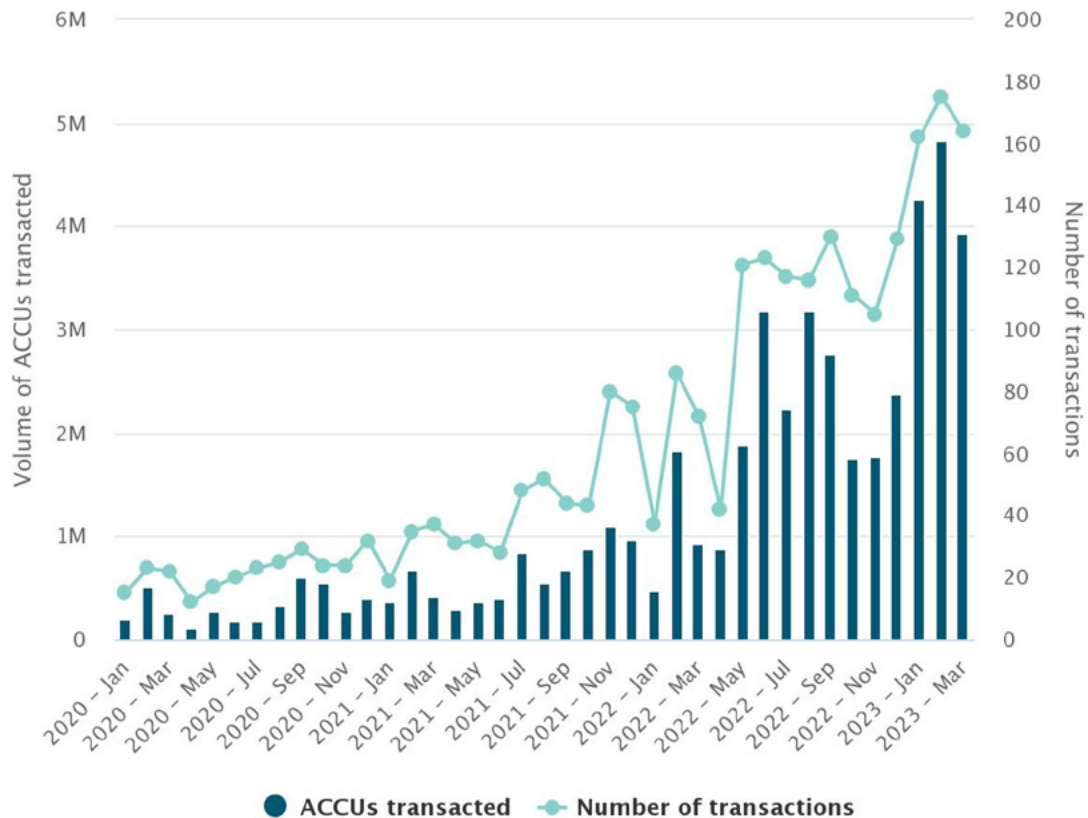
²Harrison, K., *Adaptive reuse: Should we convert empty offices to address housing shortages, UNSW, 19 April 2023*

³Gonchar, J., *3XN’s Quay Quarter Tower in Sydney Transforms and Expands an Outmoded 1970s Skyscraper, 18 May 2023*

Property owners relying on carbon credits to meet their sustainability targets will face dramatically increasing bills over the next few years. Moving to a carbon neutral operating environment now just isn’t a social or tenant attraction imperative, it is increasingly moving towards a financial one.

Australian Carbon Credit Unit (ACCU) market transactions

January 2020 to March 2023



Consideration 3: Sustainability through cleaning

Cleaning of commercial premises is something that every owner and tenant, regardless of asset class, undertakes daily.

There is a great opportunity for occupiers to reduce their Scope 3 emissions through the simple task of making changes in their approach to the essential task of cleaning.

Cleaning equipment and products are essential tools in maintaining a clean and healthy environment, but they can also have a significant impact on the environment depending on the products chosen, and if they are not used responsibly. To minimise the environmental impact of cleaning equipment, it is important to consider factors such as waste reduction, energy efficiency, and the use of environmentally friendly cleaning products.



CASE STUDY: Eliza Hoppe, Chief Commercial Officer of Consolidated Property Services, one of Australia's largest commercial property cleaning providers, helped us understand what the positive emissions impact can be for both owners and occupiers.

Consolidated have seen the opportunity at hand, and now estimate that >50% of their clients will have a Carbon Neutral Cleaning in place (certified by Climate Active). 'There are a number of benefits to this service including transparency' says Eliza Hoppe 'Large asset owners are looking down their supply chain to understand their scope 3 emissions and this service provides that level of transparency (emissions generated per sqm)'.

Waste is one of the biggest areas where commercial cleaners can make a difference. 'Although we have a roadmap to reduce our own footprint, we also understand that the biggest impact we can have on the planet is by helping our clients tackle the issue of waste. Our Active Waste Program provides a more hands on service to help time-poor building management teams achieve more ambitious NABERs ratings.'

Ms Hoppe anticipates that over the next 12 months 'we are going to see more commercial assets incorporate technology-based tools to help drive better waste outcomes. Our Innovation Team are working on a new AI/ Machine Learning tool whereby users scan their waste, and a screen will tell them which stream the waste belongs. This cost-effective device is currently in our offices in Sydney and Melbourne, and we believe it has the potential to be a game changer in Tenant Waste Training.'

Part Three:

Other long-term
considerations for
owners



ENERGY EFFICIENCY IMPROVEMENTS:

- Upgrade lighting systems to energy-efficient LED or CFL bulbs.
- Install occupancy sensors and smart lighting controls to optimize lighting usage.
- Upgrade HVAC systems to high-efficiency models and implement regular maintenance.
- Use programmable thermostats and advanced HVAC controls to manage temperature settings.
- Insulate walls, roofs, and windows to improve building envelope performance.



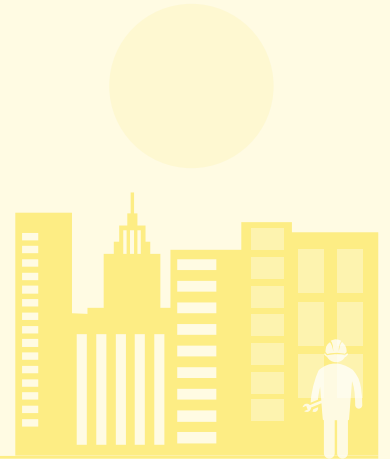
RENEWABLE ENERGY INTEGRATION:

- Install solar panels and batteries to generate and store clean, renewable energy on-site.
- Consider purchasing renewable energy from off-site sources through power purchase agreements (PPAs) or renewable energy certificates (RECs).



BUILDING AUTOMATION AND CONTROLS:

- Implement building management systems (BMS) to monitor and control energy usage, lighting, HVAC, and other systems.
- Use data analytics and real-time monitoring to identify energy-saving opportunities and optimize building performance.



ENERGY-EFFICIENT APPLIANCES AND EQUIPMENT:

- Replace outdated appliances and equipment with energy-efficient models, such as ENERGY STAR-rated products, to improve building envelope performance.



WATER CONSERVATION:

- Install water-saving fixtures and faucets to reduce water consumption.
- Implement water recycling and reuse systems for irrigation and non-potable water needs.



GREEN BUILDING CERTIFICATIONS:

- Pursue certifications like GBCA (Green Building Council of Australia) to demonstrate commitment to sustainability.
- Aim for other regional or national green building certifications that align with local sustainability goals.



WASTE MANAGEMENT AND RECYCLING

Establish comprehensive recycling programs for tenants and common areas.

- Encourage waste reduction and diversion through proper disposal and recycling practices.

INDOOR AIR QUALITY IMPROVEMENT:

- Use low-VOC (volatile organic compounds) paints, finishes, and materials to improve indoor air quality.
- Implement adequate ventilation systems to ensure good air circulation.

TENANT ENGAGEMENT AND EDUCATION:

- Educate tenants about energy-saving practices and encourage their participation in sustainability efforts.
- Offer incentives or rewards for tenants who adopt sustainable behaviors.



GREEN ROOF AND LANDSCAPING:

- Implement green roofs or living walls to improve insulation, reduce stormwater runoff, and enhance air quality.
- Use native plants for landscaping to minimize water usage and maintenance needs.

CARBON OFFSETTING AND MITIGATION:

- Invest in carbon offset projects or initiatives that compensate for the building's emissions, such as reforestation projects or renewable energy investments.

REGULAR MONITORING AND REPORTING:

- Pursue certifications like LEED or WELL.
- Continuously monitor energy and resource consumption to identify areas for improvement.
- Provide regular sustainability reports to stakeholders to showcase progress and achievements.



CONCLUSION

We look forward to providing continued industry insights and data as part of our REIA Commercial Agency Engagement Program (Project CRE).

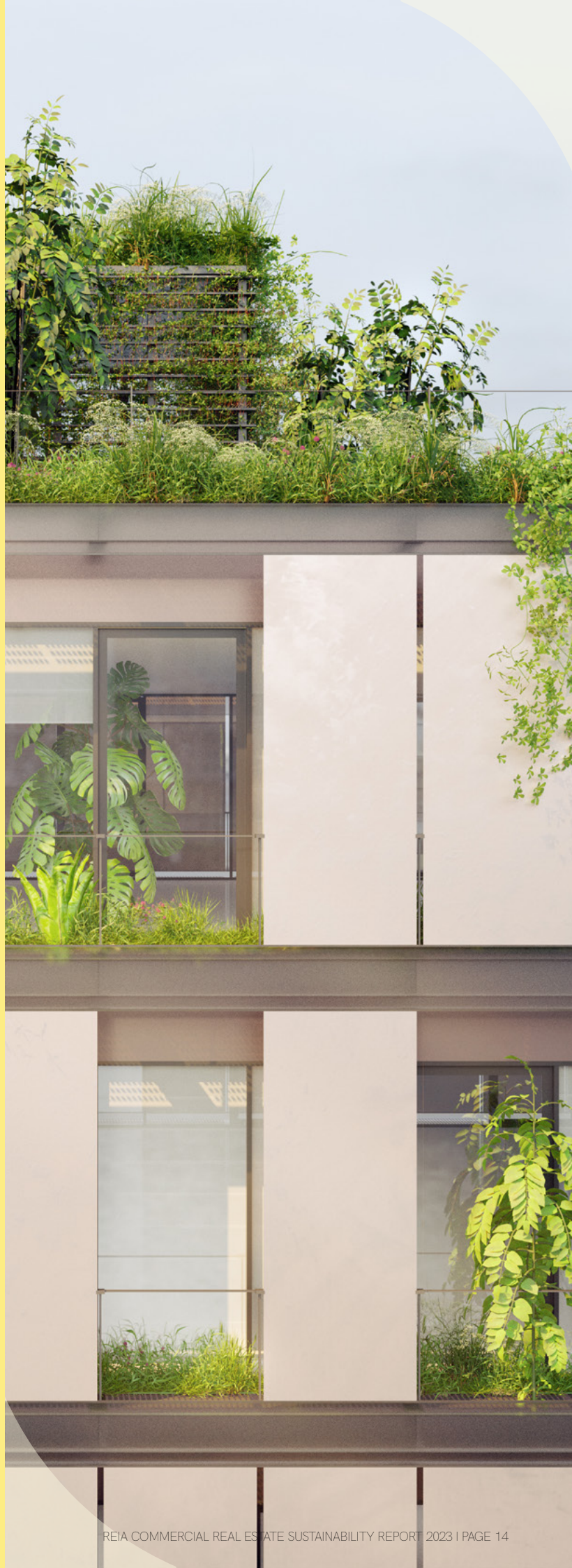
The commercial property sector is undergoing significant structural changes. Sustainability is central to this, where the challenges of implementation need to be balanced with the opportunities this presents.

The Australian market is one of the most innovative in the world, and we are here to help the industry work its way through these opportunities and continue to showcase to the world the latest in commercial property capability.

REPORT METHODOLOGY

In order to get a variety of perspectives on the Australian economic outlook and what it means for commercial property, we have interviewed some of Australia's leading subject matter experts. We thank the people below for their contributions:

- Eliza Hoppe - Chief Commercial Officer, Consolidated Property Services
- Rob Granger - Project Director, Goldfields Group
- The cover image was proudly supplied by Goldfields Group.





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