

Our Management Approach to Carbon and Energy

A. Purpose

We have a longstanding commitment to manage climate change risk, and this document sets out our approach to mitigating climate change by managing energy use and reducing carbon emissions. It should be read in conjunction with our annual Carbon and Energy Deep Dive (available on our [website](#)), where we report on progress against climate and community resilience priorities on an annual basis. Together, our management approach documents and deep dive reports comprise our sustainability reporting suite, which is prepared in accordance with the GRI Standards¹ and is third-party assured.

We recognise our capacity to enhance the energy efficiency of our assets and have taken a proactive approach to developing efficiency strategies that have generated value for our business while reducing our carbon emissions intensity.

The increasing cost of energy, particularly electricity, poses a challenge for the property industry and for all Australians. As electricity is an increasing proportion of our assets' operating expenditure, improvements in energy efficiency enable us to reduce cost and improve our operational efficiency. Integrating energy efficiency considerations into the design and construction of our assets can also help to reduce the energy requirements (and electricity costs) of our tenants and residents.

The increasing cost of power also means that renewable energy options such as solar have become cost-effective choices for our energy supply. The declining cost of solar infrastructure works in tandem with the increasing cost of conventional energy to make solar installations a sound business investment. We look to design and technology innovation and access to alternative energy supplies to help us and our customers realise a cost efficient, low carbon future.

Our management approach to carbon and energy recognises our capacity to both mitigate risks and take advantage of opportunities resulting from climate change. For more information on our approach to managing climate risks and opportunities, including our alignment with the Task Force on Climate-related Financial Disclosures recommendations, please refer to [Our Management Approach to Climate Resilience](#).



B. Management approach

B.1 Management approach overview

To complement our Group sustainability strategy, in 2006 we developed a Climate Change Action Plan to guide and integrate efforts across our business units. Our Climate Change Action Plan is regularly reviewed and refreshed to maintain our leadership in this space. The Climate Change Action Plan informs our approach in five key areas:

- monitoring emissions and energy use and streamlining reporting
- reducing emissions through both direct control and influence
- adapting to potential climate risks through research assessment and response (covered in detail in [Our Management Approach to Climate Resilience](#))
- integrating innovative solutions into operations and development projects with suppliers (covered in detail in [Our Management Approach to Supply Chain](#))
- effectively communicating our position and performance.

¹ The GRI Standards are global standards for sustainability reporting published by the Global Reporting Initiative (<https://www.globalreporting.org/standards/>). The relevant standard for this management approach document is contained within GRI 103: Management Approach.

This document sets out the targets that guide our carbon and energy initiatives and describes two key areas that focus our approach: energy efficiency and alternative energy.

B.2 Active targets

The table below provides targets and commitments that guide our approach to managing energy use and reducing carbon emissions. Progress against these targets and any additional priorities is reported in our annual [Carbon and Energy Deep Dive](#).

BUSINESS UNIT	TARGETS AND COMMITMENTS
Commercial Property	<ul style="list-style-type: none"> Achieve a 60 per cent reduction in carbon emissions intensity for Retail Town Centre and Workplace assets by FY25 (against FY06 benchmark). Reduce carbon emissions intensity in our Retail Town Centre portfolio by 10 per cent by FY20 (against FY17 benchmark). Reduce carbon emissions intensity in our Workplace portfolio by five per cent by FY20 (against FY17 benchmark). Achieve a NABERS Energy Retail Town Centre portfolio average of 4.5 stars by FY20. Achieve a NABERS Energy Workplace portfolio average of 5 stars by FY20.
Communities	<ul style="list-style-type: none"> Exceed relevant minimum energy-related compliance standards by 10 per cent within our residential communities by FY20. Exceed relevant minimum energy-related compliance standards by 10 per cent in all new retirement living developments by FY20. Install at least five solar photovoltaic systems across retirement living community clubhouses by FY20. Achieve a five per cent energy reduction target for retirement living communities with sub-metering by FY20.

B.3 Energy efficiency

Our Group-wide focus on energy efficiency manifests differently across our Commercial Property and Communities business units. The approach also varies depending on different stages in a project's lifecycle. Each business unit has its own specific sustainability policy. This outlines strategic initiatives, performance standards and specific requirements relating to energy efficiency and climate change mitigation to be considered in the design, construction and operation of projects and assets.

To effectively manage our energy efficiency performance, we employ evidence based decision-making tools and certification. We use the CCAP Precinct data management system (explained in greater detail below) to assess and prioritise the energy initiatives that deliver the greatest emission reduction outcomes for the lowest cost in our Communities business. Within Commercial Property, we review projects at a project level against our financial hurdles.

We concentrate our energy and emissions reduction efforts where we can specify the built form, set reduction targets and performance standards, which is largely in our Commercial Property business and increasingly in our Retirement Living portfolio.

Design

We use the Green Building Council of Australia (GBCA) Green Star rating tools to support the design and delivery of energy efficiency initiatives across our portfolio and to set a platform for optimal performance.

All new Retail Town Centre, Workplace and Retirement Living developments are required to achieve a minimum 4 Star Green Star rating, with a strong focus on energy efficiency. Retail Town Centre and Workplace redevelopments or extensions greater than 8,000 square metres are also required to achieve a minimum 4 Star Green Star rating. We target energy credits for greenhouse gas emissions, energy sub-metering and car park ventilation, and management credits for commissioning and building tuning. By committing to these minimum standards, we prioritise measures into design specifications that enhance operational efficiency.

We use the CCAP Precinct tool to model the sustainability performance of our developments. CCAP Precinct is a leading industry recognised masterplan modelling tool that benchmarks projects against regional averages across sustainability impact areas, including energy. The tool can be applied to masterplanned communities as well as smaller scale built form developments, such as retirement villages and apartments. Modelled outputs include estimated energy consumption and carbon emissions, water consumption, transport and associated cost estimates. We use CCAP Precinct to undertake modelling on new bids to buy land for residential developments.



In our residential communities, where our customers generally select their own builders and determine the design and energy efficiency of their homes, we seek to influence the design and appliance options of our customers by establishing community hubs to provide tools for making homes more sustainable and efficient. The Green Star – Communities tool is a way to benchmark design and is featured in our masterplan design guide, Better Places Manual.

Development

Civil works on residential development projects constitute a major source of our emissions. Civil contractors fall inside our operational control boundary, as defined by the National Greenhouse and Energy Reporting Act 2007 (NGER Act). Our civil contractors use heavy equipment to move large volumes of spoil across sites to achieve development and landscape levels. We work with our contractors to develop a bulk earthworks strategy for our sites with the aim of minimising vehicle movements on and off site and around the site, which reduces emissions. As part of developing the bulk earthworks strategy, we also look across projects within a region and seek to understand where we have excess spoil and whether spoil can be diverted to another site to minimise the amount of soil that needs to be brought onto a project. This approach saves money, reduces our need for fill from distant sources, reduces the amount of earthworks required, and reduces the carbon emissions associated with the development.

Development activity in our Commercial Property business is not within our operational control boundary, as ultimate control of our Commercial Property developments lies with our principal contractors. As such, emissions from these developments are not captured in our annual reporting; however, we work with our contractors to identify and implement energy efficiency improvements. We continue to investigate methodologies to enable effective, meaningful and accurate intensity calculations in our Communities developments, as varied approaches across projects compromise consistent measurement.

Our design guidelines for our Retirement Living developments encourage reductions in energy use and emissions through maximising solar orientation, installation of energy efficient appliances and light fittings, natural gas boosted solar hot water systems and LED and sensor activated lighting systems. Our villages complete Green Star ratings which have minimum energy performance criteria.

Operations

In Commercial Property, we undertake NABERS Energy ratings to benchmark the performance of our assets against industry standards and to measure the effectiveness of the initiatives implemented. In Workplace and Business Parks, we complete NABERS ratings annually on all eligible assets within the portfolio. In Retail Town Centres, we complete NABERS ratings across eligible assets within the portfolio annually, with coverage increasing over the past five years.

We invest in energy sub-metering systems to monitor energy consumption in our Workplace, Business Parks and Retail Town Centre assets. Energy sub-metering is a key tool for us to manage consumption and is critical to our ability to achieve our targets. Using consultant partners, we monitor and analyse sub-metering data to provide useful information and insights to our operations management teams on where we need to target any efforts to reduce energy consumption.

In our residential communities, our approach to achieving carbon and energy objectives depends on our capacity to influence the final built form and thus the operation of homes and associated infrastructure. In masterplanned communities where purchasers buy land from us and build their own homes, we have little direct control over the built form. In these instances, we work with local councils, universities and industry partners to deliver programs and initiatives within our communities to build awareness of the benefits of energy efficient practices and behaviours among our residents.

We have a greater level of control over energy outcomes in medium density, completed homes, and apartment products. In these instances, we embed initiatives into the homes that align with our carbon and energy targets and model the performance of the homes over time.

In our Retirement Living portfolio, we have operational control of our clubhouses and common areas. We have commenced monitoring energy at selected clubhouse and common areas. The insights from these reviews are helping us to target sustainability projects within our portfolio.

B.4 Alternative energy

Our approach to alternative energy is focused predominantly on solar photovoltaics (PV) in our Commercial Property portfolio, though we have explored the use of wind and tri-generation at certain assets. We have been at the forefront of solar PV investment in the Australian property industry, having installed the then largest solar PV rooftop installation at Stockland Shellharbour in 2015 and commencing an industry-leading rollout of 12.30 MW solar PV capacity across ten of our retail town centres in 2017. We actively assess the most appropriate locations to roll out solar across the portfolio and focus on alternative energy initiatives that meet our return on investment hurdle.

We have solar PV installations on a large proportion of our retirement living homes. We continue to review different network ownership and management models to understand how solar PV can be adopted in our residential communities on a large scale. We also focus on building embedded energy networks across our retail town centres and retirement living communities. This enables larger installations to meet both base building and tenancy energy requirements and enable us to reduce the cost of electricity for our tenants and gain visibility of asset-wide energy consumption data. We then identify further emission reduction opportunities and work collaboratively with our tenants to further reduce their energy costs in the future.

C. Review and evaluation of the management approach

We review and report on our progress against our carbon and energy commitments and targets as part of our annual [Carbon and Energy Deep Dive](#). In this reporting, we include:

- a status update and description of progress against our targets
- an explanation of progress on priority actions that contribute to the achievement of key targets
- the identification of future priorities
- highlights of initiatives implemented over the reporting period
- case studies that explore key achievements, usually at particular locations.

To evaluate the effectiveness of the management approach, we have a number of tools and checkpoints in place that allow ongoing, progressive energy performance tracking and review. Setting targets for performance and using rating tools in design and operation facilitates comparisons with benchmarks that can be tracked over time. With the assistance of sub-metering and monitoring, data capture and management systems, we can readily check our progress against targets and identify areas of divergence that may require focused attention.

We review the effectiveness of our approach to operational energy efficiency by preparing an energy efficiency evaluation for our Retail Town Centre assets. This considers the key financial metrics relating to energy efficiency and alternative energy investments, including the centre's capital expenditure investment, gross actual savings, gross return on investment (savings/capex) and net return on investment (savings/capex). This evaluation enables us to compare the actual project outcomes to those proposed and to use these findings to inform future investment decisions.

In addition to our annual sustainability reporting, we prepare regular reports of our progress to senior leadership teams and to our Board as a means of constantly reviewing our performance and providing opportunities for timely adjustments to the management approach if required. We also report our greenhouse gas emissions, energy production and energy consumption to the Australian Government annually, consistent with the requirements of the *National Greenhouse and Energy Reporting Act 2007*.

We engage with industry bodies such as GBCA, Property Council of Australia and other external stakeholders, to stay informed of current trends, material issues and industry benchmarks. We also regularly assess our performance against that of our peers.



D. Responsibilities

Roles and responsibilities associated with delivering our approach to carbon and energy are described in the table below.

ROLE	RESPONSIBILITIES
Board Sustainability Committee	Oversight of strategic approach to managing energy use and reducing our emissions, including targets and performance tracking
Chief Financial Officer (CFO)	Responsibility at a Group level for environmental performance, including energy and emissions Reports directly to Managing Director and CEO
General Manager – Sustainability and Corporate Procurement	Strategic identification and evaluation of emissions reduction and alternate energy initiatives across our diverse portfolio of assets
Development Managers and Asset Managers	Effective management of energy and emissions at project and asset level
Managing Director and CEO, CFO, business unit CEOs, Development Managers, Asset Managers, functional staff	Meet key performance indicators relating to strategic energy and emissions reduction targets

E. Version control

REVISION	PUBLISHED	OWNER	CHANGES
1	September 2018	General Manager – Sustainability and Corporate Procurement	