Building sustainability

MaxCap Group Research - October 2023

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The road to net zero. Confronted with more signs of climate change and more popular support for climate action, the Australian Government has committed to markedly reduce greenhouse gas emissions by 2030, on the way to net zero emissions by 2050.

A lot of real work ahead. In this context, there is a lot of work to be done in real estate, as a major emitter of carbon in the economy. Also, there is considerable opportunity ahead across Australian real estate sectors to reduce energy usage, build more sustainably, manage climate risks and deliver better risk-adjusted returns.

Covering all types of real estate. The green push in real estate is all encompassing, not just including all future construction projects, but also covering the comprehensive retrofits of every existing residential and commercial building to align with the proposed net zero pathway.

Delivering measurable outcomes. Part of this journey involves measuring the environmental performance for each asset, by continually reporting upon their sustainability ratings, as a baseline for assessing future improvements.

A green premium. For investors, there is increasing evidence of a green premium in real estate, with more sustainable buildings commanding higher occupancy, rents and asset prices. Investors are not just deploying to sustainable real estate for better environmental and social impacts, but likely for better financial rewards as well.

The great stranding. Importantly, there is an element of investor value protection at work as well. For buildings left behind by the rising tide of sustainability, there is a genuine risk that browner buildings might become stranded, unable to attract finance, insurance or buyers.

The road to net zero

There are more consistent signs of climate change taking hold across the world. **Global temperatures** continue to rise relentlessly, pushing 1.6°C above pre-industrial levels for the first time in July 2023 and moving beyond the long-standing aspirational target of 1.5°C set by the 2015 Paris Agreement.

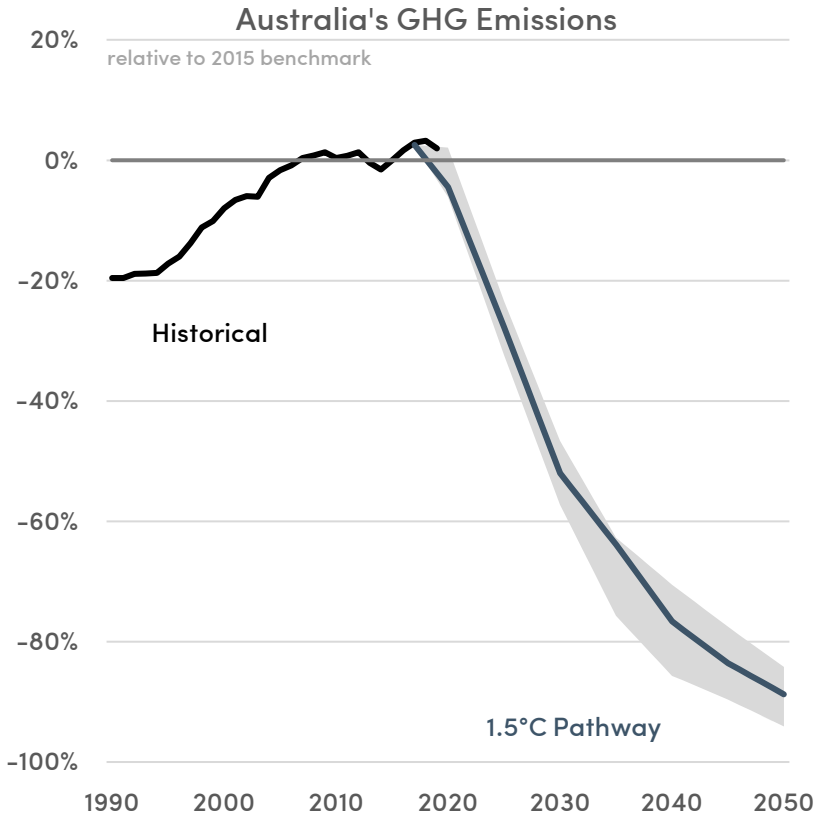
In this context, there are more urgent calls for **climate action** in Australia and abroad, with increasingly vocal support from individuals and corporates. The Australian Government has also expressed a clearer commitment in 2022 to reduce greenhouse gas emissions by 43% from 2005 levels by 2030, on the way to a net zero emission target by 2050.

From a **global economic perspective**, the road to net zero requires a comprehensive effort to transform and decarbonise the economy, by markedly reducing or entirely removing the emission of carbon dioxide and other greenhouse gases from everything we use, everything we move and everything we build.

From an **Australian real estate perspective**, this requires substantial change in how we build, use, reuse and retire our buildings. Most significantly, there is a necessary change to reduce emissions in power generation (32% of 2019 CO_2 emissions) and how we use that power in real estate, particularly as we transition from two-thirds fossil fuels to two-thirds renewable sources. At the same time, there are similar shifts needed to decarbonise sectors like manufacturing (11%), logistics and warehousing (6%), business services (4%), household use (3%) and construction (2%), according to the latest estimates from the latest National Greenhouse Accounts.

In practical terms, this translates into **a very long to-do list** for the Australian real estate sector, with the substitution to renewable power, the retirement of fossil fuel boilers, the use of more energy-efficient appliances and cooling, the move to newer zero-carbon buildings and the wholesale retrofitting of every existing building in the country.

Australia's commitment to net zero requires a marked reduction in greenhouse gas emissions by 2050, across all parts of the economy, including all real estate assets



Source: Department of Climate Change, Energy, the Environment and Water, MaxCap Group (October 2023)

The brown to green transition

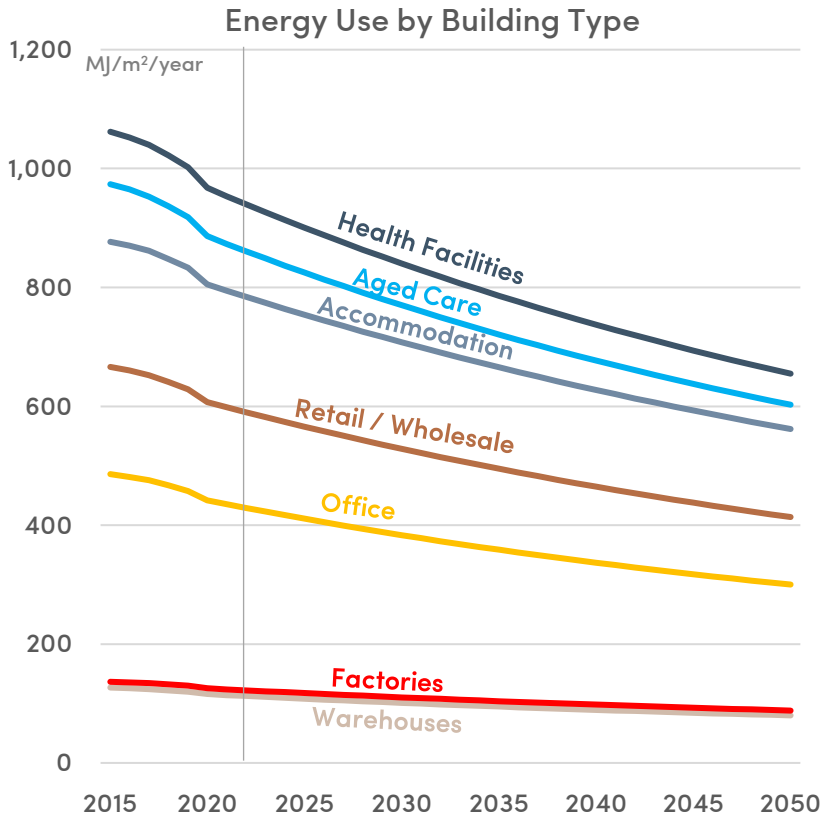
Certainly, there should be an intense focus to deliver newer and greener real estate developments. At the same time, there is the more challenging and more substantial task to **retrofit every existing building**, to facilitate a comprehensive brown to green transformation in real estate.

To be clear, this is an enormous task, covering 11 million residential dwellings and 1 million commercial buildings at last count. In this context, the most obvious questions are… **Where do we start? Where can investors drive the biggest impact?**

- **Office** buildings are often the first point of consideration, given their numerous count (170,000 in Australia) and their disproportionate weight in the commercial market (40% of transactions). There is considerable scope to improve the environmental footprints of office towers with renewable power and better water / waste management, but their energy-use intensities are not the highest in relative terms.
- Given popular imageries of pollutive smokestacks, there is a similarly prevalent push to transform the numerous **factories** (100,000 in Australia) and **warehouses** (160,000) with renewable power, energy efficiency initiatives and carbon capture at the point of emission. From a real estate perspective, their direct energy-use contributions are even lower, compared to other more energy-intensive real estate sectors.
- Meanwhile, the energy usage rates in the **healthcare** sector (which includes 21,000 nursing homes and 15,000 healthcare facilities across Australia) are among the highest in the real estate sector. Indeed, there is massive scope (and the biggest potential impact) to reduce energy use in these sectors by 30%, as part of the emission reductions necessary for achieving the net zero objective by 2050.

Altogether, there is substantial work ahead across all parts of the real estate market in terms of reducing energy use and carbon emissions. **The most fruitful segments** for making an impact are with the most energy-intensive areas, starting with the healthcare and accommodation sectors.

There is an all-encompassing need to improve energy efficiency across all types of commercial buildings, with hospitals, health care and hotels at the top of the list



Source: Department of Climate Change, Energy, the Environment and Water, MaxCap Group (October 2023)

Measurable gains

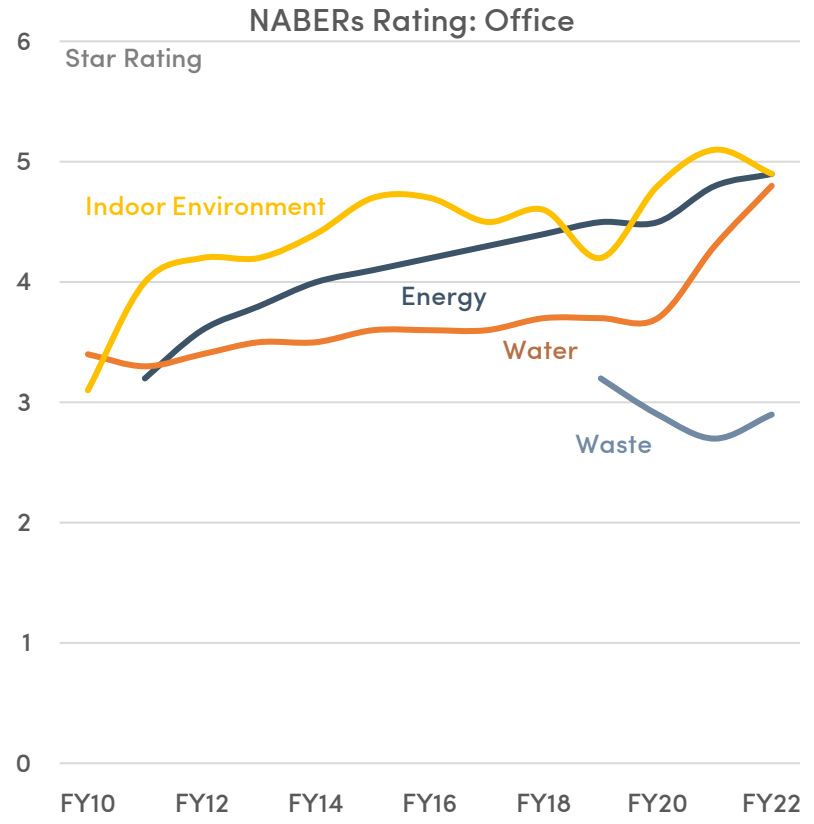
For the real estate sector, an essential part of the net zero journey between now and 2050 comes with **measuring, reporting and assessing** the brown to green transition with the use of environmental sustainability ratings. This process really comes down to the old adage ‘what gets measured gets managed’.

In this context, there is a rapidly burgeoning industry that works to measure the environmental performance of each real estate asset.

- At a macro level, this often comes down to an aggregate **rating of environmental performance**. In Australia, there are well-established rating standards for commercial buildings (NABERS) and residential housing (NatHERS), somewhat comparable to the competing GRESB / LEEDS / BREEAM standards used in other parts of the world.
- There is considerable scope to **improve these ratings** over time. This process started earlier with energy efficiency, but the focus has progressively widened to cover water usage, indoor environment and waste management. These ratings are – for the most part – trending higher, as landlords push harder for a commercial advantage in amenities in the ongoing competition for tenants and buyers.
- Certainly, we are likely to see **broader ratings coverage** over time, as the present NABERS scheme only accounts for 53% of hospitals, 19% of shopping centres, 16% of data centres, 2% of offices / hotels, and just 1% of aged care facilities. The use of sustainability ratings will undoubtedly rise significantly over coming years, driven by increasingly eco-conscious investors, landlords and tenants.

This drive for better sustainability measurement and reporting serves **an important end goal**, by presenting the basis for comparing individual real estate assets across the country and over time, to realise better financial outcomes in occupancy, rents and pricing from operating greener real estate assets.

There is a more stringent push to measure the environmental performance of individual buildings, which will increasingly influence its market value.



Source: NABERS Annual Report, MaxCap Group (October 2023)

The great stranding

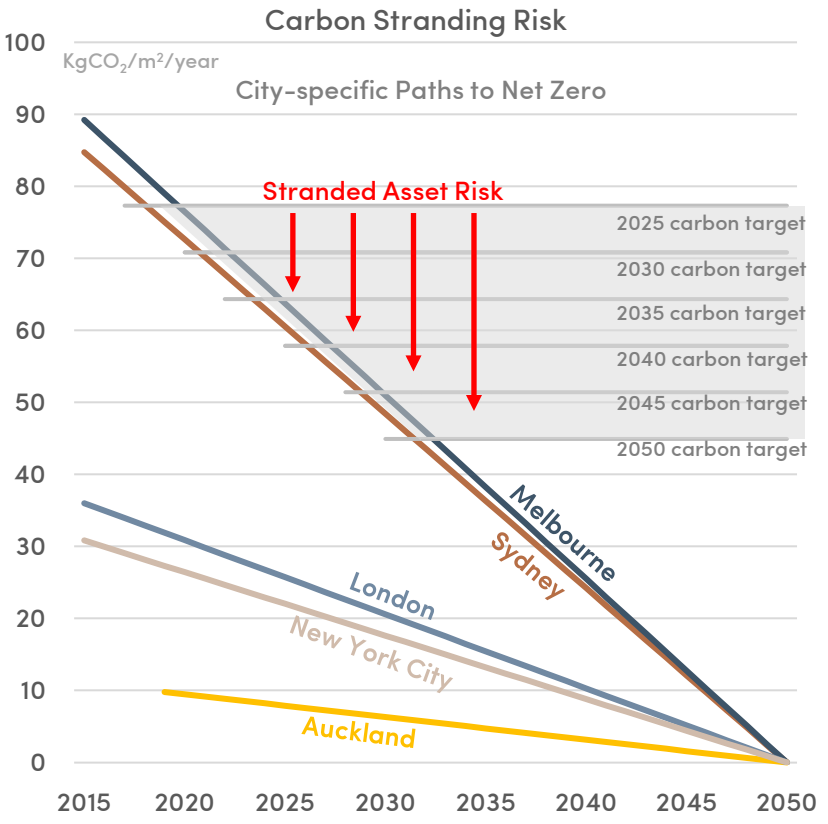
Certainly, the inevitable brown to green transition for real estate offers **a sizeable and positive opportunity** to improve investment returns by running more climate-resilient assets.

- Indeed, there is a broadening body of evidence showing the presence of **a green premium**, with more sustainable buildings commanding better rents and prices. Dalton & Fuerst (2018) provides a succinct summary of this sustainability dividend across 14 countries, putting the commercial rental premium at 5% and the price premium at 12%, with a similar residential rental premium of 8% and a price premium of 6%.

At the same time, the sustainability drive presents an adverse **liquidity risk** for less sustainable (and unrated) assets, which may leave these pieces of real estate being stranded in the market in the coming years.

- Most significantly, the journey towards net zero **requires continual reductions** in building-specific emissions, which establishes progressive waypoints between now and that emission target in 2050. This tidal shift in sustainability imposes increasingly stringent carbon targets for asset owners each year.
- In a market-driven environment, this is not necessarily a linear path, but **a lumpy adjustment process ahead**. With the wider introduction of zero carbon buildings over the 2020s, tenants, buyers and lenders are strongly incentivised to lease, acquire or finance the more sustainable option, driving an accelerating retreat away from browner, less sustainable buildings.
- Where individual assets fall substantially behind this moving threshold for environmental performance, there is **a mounting risk** of adverse repricing and market illiquidity. Indeed, there is a potential band of underperformance that widens with each passing year. For assets caught in this band, there is a genuine risk of stranding, with diminishing access to tenants, buyers, financiers and insurance cover.

The road to net zero will prompt a rising threshold for environmental performance standards, which may leave underperforming buildings stranded in the market



Source: Climate Bonds Initiative, MaxCap Group (October 2023). Dalton & Fuerst (2018) The Green Value Proposition in Real Estate: A Meta-Analysis

Additional information

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