Aussie property and net-zero – 5 stocks, 1 REIT that are on track

Every industry faces the challenge of decarbonisation but none more so than the real estate sector. Back in 2019, The Global Status Report for Buildings and Construction[1], published by the UN Environment and International Energy Agency, claimed that "Buildings and construction generate nearly 40% of CO2 emissions". The report went on to argue that "action continues to lag far behind opportunity."

Climate change has long been our most pressing societal challenge. Now, with the public demanding meaningful action to reduce emissions, tenants calling for more sustainable and energy-efficient spaces and investors and capital markets more aware of the risks (and opportunities) of climate change, the real estate sector is prioritising action.

About three-quarters of the sector's share of global emissions arise from day-to-day operations, known as operational carbon. The remainder is accounted for by the energy-intensive nature of materials, particularly concrete and steel, involved in a building's construction. This is known as embodied carbon.

The industry has enjoyed much success with the former - the low hanging fruit if you like - and is beginning to tackle the more challenging embodied carbon in construction materials.

Operational carbon

Let's first look at how the AREIT sector is reducing energy consumption and greenhouse gas emissions in existing buildings, where a number of energy-efficiency strategies are employed.

When plant and equipment used in a building reaches the end of its useful life, building facilities management teams will usually replace them with more energy-efficient options. Newer technologies such as LED lighting, heat pumps and energy-efficient air conditioning are some of the ways in which energy efficiency is being improved.

Many buildings, especially those with large roof areas like warehouses, car parks and shopping centres, are also being fitted-out with on-site solar projects.

Waverley Gardens Shopping Centre in Melbourne, for example, will generate about 20% of total demand from rooftop solar and the remainder from renewables energy supplier Solar Bay.

Dexus Wholesale Property Fund's (DWPF) Willows Shopping Centre in Townsville, meanwhile, has installed one of Australia's largest car park solar arrays with 4,800 panels generating around 2,500 megawatt hours (MWh) per year.

Arena REIT, a childcare centre landlord, has agreed to roll out solar across more than 80% of its centres while global industrial landlord and developer Goodman Group has committed to installing over 400MW of solar across its global portfolio by 2025.

Building managers also have more tools at their disposal. Lights and machines can be automatically turned off and lower office occupancy during lockdowns has caused owners to improve energy efficiency, waste management practices and water usage intensity. These measures reduce emissions and help de-risk assets.

To assist companies to determine the quality of their environments, Australian buildings are benchmarked using NABERS, the National Australian Built Environment Rating System. This measures a building's energy efficiency, water usage, waste management and indoor environment quality.

Over the past two decades, NABERS customers have saved seven million tonnes in CO2 emissions. Over three-quarters of Australia's office spaces are now rated using NABERS criteria.

Green energy measures like these have enabled the office properties in the Dexus property portfolio to improve their average NABERS rating from 4.8 to 5.0 over the past four years.

The recently completed Olderfleet Building by Mirvac at 477 Collins Street, Melbourne, is a good example of what a new, energy-efficient building offers.

With a 5-star NABERS energy rating, the property will be 100% powered by renewable energy, use climate-friendly refrigerants and deliver substantial reductions in landfill waste.

Where emissions in buildings cannot be eliminated - for example, in the gas used for heating and hot water - AREITs are purchasing carbon offsets.

Carbon offset projects reduce, remove or capture emissions from the atmosphere to offset emissions generated elsewhere with projects encompassing everything from land revegetation and carbon recapture to better cattle and fire management.

Net-zero targets

The aim of these measures is to become what is known as 'net zero' and the AREIT sector is rapidly moving towards this point.

Dexus is one of a group that is leading the charge to net zero. It originally aimed to reach net-zero for its group managed portfolios[2] by 2030. That target is on track to being achieved by the end of this financial year. In fact, of Australia's 32 AREITs within the AREIT 300, 25 (which account for ~90% of the index) have announced net-zero targets. Today, these 25 groups have net zero carbon targets with the larger AREITs especially moving quickly to net zero. Other groups that have brought their net zero targets forward include both Mirvac and GPT Group. Mirvac in November 2021 reached its target of becoming net carbon positive nine years ahead of its original schedule, while GPT Group now plans to be net zero by 2024, six years earlier.

This is a finding consistent with our inaugural AREIT ESG Survey conducted in 2021. This year's survey is likely to find that net-zero targets are even more widespread and ambitious. This is a sector moving rapidly towards decarbonisation.

Overall, Australia's REIT sector is making excellent progress, especially in an operational sense where the toolkit is extensive. Progress in addressing the embodied carbon in building materials is proving more complex.

Embodied carbon

Embodied carbon arises from the emissions created in the manufacturing of materials used in building construction, especially concrete, steel and aluminium.

As the real estate sector reduces its operational emissions, embodied carbon will represent an increasing share of the overall lifecycle emission of an asset.

While there is a roadmap for buildings to become operationally net-zero, there is not yet a clear pathway for embodied carbon. There is, however, progress, best illustrated with two local examples.

At 180 metres, Atlassian's new 40-storey headquarters under construction at the Tech Central precinct in Sydney will be the world's tallest commercial hybrid timber building.

Featuring a rooftop garden and a timber core, the building will also use carbon-neutral concrete to minimise embodied carbon emissions. As cement ages and weathers over time, it also absorbs carbon dioxide in a process called carbonation, acting like a carbon sink.

Most concrete manufacturers now offer climate-friendly products, which are becoming competitive with traditional products. This is an area seeing considerable progress.

Groups like Boral and Fletcher Building are also reusing old waste in the production of new materials, allowing developments like GPT's 51 Flinders Lane in Melbourne to target a 40% reduction in whole-of-life embodied carbon emissions.

Such developments are likely to become the norm as these proof-of-concept examples fill with businesses and their workforces.

Still, making energy-intensive products like carbon-neutral steel remains a challenge.

But even here there are encouraging signs. Green hydrogen technology and other forms of cheap, renewable power offer much promise. At some point, we will solve these problems, too.

In the meantime, the evidence is compelling. The real estate sector is taking the necessary steps toward decarbonisation.

This progress is not only the result of doing the right thing. Commercial property owners have a compelling commercial interest in making their assets carbon neutral, including to attract more high-value tenants, meet their investors' objectives and take advantage of lower operational costs.

The industry would benefit from more research and benchmarking so that progress can be quantified. Support from Australian governments in helping the sector make the transition to a net-zero industry that still accounts for about 40% of global carbon emissions would also be welcome.

But even without these things, the sector has made exceptional progress, especially in the past few years.

At DXAM, we incorporate ESG criteria into our decision making and have witnessed the progress first-hand. Environmentally orientated investors that want to support the transition to a net-zero world can be comforted by investing in AREITs and, like the planet, have much to gain.

1. 2019 global status report for buildings and construction, International Energy Agency, December 2019.
2. Dexus HY22 Results.

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