UniSuper

Climate risk and our investments

October 2024

Investing in a bright future

Contents

IMPORTANT INFORMATION

Unless otherwise mentioned, all our holdings are determined as at 30 June 2024. All dollar values are published in AUD unless otherwise stated.

Unless otherwise mentioned, companies have been assessed based on information available up to 31 July 2024. Any information announced or published after this date was not considered in company assessments.

This report may contain statements that are, or may be deemed to be forward looking statements, including climate related goals, targets, pathways and ambitions. Such forward looking statements are not guarantees and involve known and unknown risks, uncertainties and other factors, which are beyond the control of UniSuper. This may cause actual results to differ materially from those expressed or implied in such statements. UniSuper will continue to review its disclosure practices, including alignment with the Australian Sustainability Reporting Standard Climate-related Financial Disclosures (ASRS 2). This may involve republishing data as the disclosure of data evolves over time. UniSuper reserves the right to update this Report from time to time, if required.

For further information on limitations see page 61.

We engaged an external assurance organisation, EY, to provide UniSuper with limited assurance in relation to the fossil fuel look-through revenue, financed emissions intensity and coverage disclosures contained in this report.
See pages 68 and 69 for further information.

Front cover image:
Forico, a sustainable Tasmanian timber plantation estate | Source: New Forests Group

Message from the Chief Investment Officer

Welcome to the seventh edition of *Climate risk and our investments*.

John Pearce
Chief Investment Officer

Whilst decarbonisation remains the most pervasive theme of our generation, it is becoming increasingly evident that the path to net zero is not going to be linear.

Ambition is meeting pragmatism as governments grapple with the trilemma of energy security, affordability, and reliability. Some corporates are now pulling back on overly optimistic 2030 targets. Investors are reluctant to invest in greenfields projects with highly uncertain long-dated pay offs. Public support for net zero remains strong, although consumers baulk at paying a "green premium".

Notwithstanding the enormity of the challenges, the direction of travel is clear, and there is much to be positive about. The energy transition is spurring a rapid industrialisation of the global infrastructure built over the past two centuries. The Inflation Reduction Act (IRA) in the US has provided the required market signals to incentivise renewable energy development. Fortunately, the spoils of the IRA are being spread across the republican and democratic states. Bipartisan support for the key tenets of the IRA remains the base case.

Much like the rest of the world, Australia cannot compete with the US regarding the scale of the initiatives being implemented. However, frameworks such as the Safeguard Mechanism and the "Future Made in Australia" bill are steps in the right direction. So too is the Climate Change Authority's Sector Pathways Review which outlines emissions reduction pathways for the key sectors in the Australian economy. On the other hand, the Australian political scene appears to be mired in climate wars. Let's hope that we can also find the bipartisan support required to provide the policy clarity corporate Australia needs.

The overarching nature of this report is to provide members with a level of comfort that we understand the risks and are seeking opportunities in a decarbonising world. I would like to draw your attention to the following aspects of the report.

INVESTING IN MACQUARIE ASSET MANAGEMENT'S GREEN ENERGY AND CLIMATE OPPORTUNITIES FUND

Page 11 highlights our first significant unlisted investment in the renewables sector. Macquarie is a leader in green financing with a global footprint, a pipeline of opportunities, and a track record of making profitable investments in a nascent industry. Importantly, Macquarie is investing along with UniSuper and other investors, so our interests are aligned. The Fund will focus on large scale, mature technologies, avoiding the riskier sectors such as nuclear and hydrogen.

VIEWING OUR INVESTEE COMPANIES' PROGRESS THROUGH THE LENS OF OUR TRAFFIC LIGHT REPORT

Our traffic light report (pages 19 to 20) is a proprietary initiative focusing on our Largest 50 Australian investments. These companies constitute over 65% of our Australian investments. They are the companies that we have direct access to and engage with the most. In summary:

- Paris aligned 2050 target: 48 of our Largest 50 Australian investments received a green light, up from 45 last year.
- Interim targets: 42 of our Largest 50 Australian investments received a green light, up from 39 last year.
- Action plan: 38 of our Largest 50 Australian investments received a green light, up from 36 last year.

The report also serves to inform us on potential areas for further engagement, particularly where companies are falling short of our expectations. The 50 companies involved receive a letter from UniSuper detailing the outcome of our assessment. Suffice to say that a negative assessment typically leads to a robust follow-up discussion between UniSuper and the company.

HIGHLIGHTING THE VARIOUS RESPONSES TO THE CLIMATE CHALLENGE

The climate challenge has impacted corporate Australia in myriad ways. Pages 26 to 31 contain various examples. To summarises at a high level:

Australian Banks

Fossil fuel exposure of the major banks has been in steady decline, and direct lending to fossil fuel related companies is typically well below 1% of loans exposures. Australia's largest banks have signed up to the Net Zero Banking Alliance (NZBA). The NZBA requires signatories to have targets set by 2050 covering all (or a substantial majority) of the carbon intensive sectors of their loan book where data and methodologies exist.

NEXTDC

Australia's largest listed data centre business is investing heavily in new technology, and best-in-class design. With the dawn of the AI era, data centres are quickly becoming a major source of the growth in the demand for energy. An estimated 18 GW of additional power capacity will be needed to service US data centres by 2030. For comparison, the total power demand for all of New York City is currently around 6 GW.

BHP, RIO, and BlueScope

Decarbonising steel production requires addressing challenges throughout the value chain. Suffice to say that there is a long way to go, and the technology to manufacture "green steel" at scale is not currently available.

Woodside

We voted against Woodside's "Say on Climate" as we felt it lacked ambition.

Santos

We voted for Santos' "Say on Climate" in support of investing in carbon capture and storage. We strongly feel that all potential technology solutions are required to provide any hope of achieving net zero.

Forico and HVP Plantations

Various initiatives are being put in place by our timber companies to improve their resilience to climate change.

ESTIMATING OUR CARBON FOOTPRINT

The final section of the report contains information on some of our individual investment options, including estimates of their carbon footprints. The section is included in the interests of full transparency, although it's caveated with the clear message that there are (potentially significant) limitations given that the source data is far from complete or uniform. Bear in mind that funds represent an aggregation of the equity and debt being held in companies. UniSuper has holdings in over 3,000 companies.

We welcomed the introduction of legislation dealing with the development of mandatory, standardised, internationally aligned climate reporting. Large super funds (including UniSuper) will be required to report from July 2026. Policymakers have acknowledged that the standards require a number of refinements to ensure they are fit-for-purpose for super funds. To ensure that we are part of the process and ready for implementation we have engaged with various parties on the legislation including:

- Commonwealth Treasury
- Australian Accounting Standards Board (AASB)
- International Sustainability Standards Board (ISSB)
- Auditing and Assurance Standards Board (AUASB)

As with our previous reports, this edition of our Climate Risk and our Investments report demonstrates our efforts to continually improve our climate risk assessments and reporting. In relation to the carbon footprint, whichever way one looks at it, there is obviously a very long way to go in order to achieve net zero. So how can we still be confident that we will get there? The two key reasons are: (i) it is a 2050 target and progress is likely to be in quantum steps—not linear, and (ii) over 87% of the investments we've assessed are already covered by net-zero targets, science-based targets, or commitments to cut emissions by more than 90%.*

Furthermore, over time (but before 2050) we have the option of avoiding or divesting any company that we believe is not on the path to net zero. The bottom line is that we remain confident that we will be able to construct a suitably diversified fund with a net zero profile before 2050.

John Pearce
Chief Investment Officer

* This analysis covers 76% of the Fund to understand look-through exposure which gives us a representative view of our transition risk across the Fund. See pages 35 and 45 for more information on how this was analysed.

Pathway to net zero

Paris Agreement

The Paris Agreement brings together all signatory nations to combat climate change and adapt to its effects. Its goal is to limit global warming to well below 2°C compared to pre-industrial levels and to take steps to further limit the temperature increase to 1.5°C. To keep global warming to no more than 1.5°C, global carbon emissions need to be reduced by 45% by 2030 and reach net zero by 2050.

By 2050, we expect that the global economy will be operating in a world which has achieved net-zero carbon emissions. For this reason, we believe that committing to a net-zero portfolio will not place undue constraints on our investment universe.

Australia's journey to net zero

From the Paris Agreement to today

2015
Australia signs the Paris Agreement. Target to reduce emissions by 26-28% below 2005 levels by 2030.

2019
Rewiring the Nation policy announced to upgrade the electricity grid transmission infrastructure.

2020
Renewable Energy Target surpasses its goal of delivering an extra 33,000 gigawatt-hours (GWh) of renewable electricity every year.

2021
Formal commitment to achieve net-zero emissions by 2050 and National Climate Resilience and Adaptation Strategy.

2022
The Australian Government's Climate Change Act makes Australia one of 27 nations to legislate its net-zero emissions targets.

Australia updates 2030 target to a 43% reduction in greenhouse gas emissions from 2005 levels.

The Safeguard Mechanism reforms introduce tradeable credits and set declining emissions baselines to achieve net zero by 2050.

2023
Net Zero Economy Agency is established to coordinate efforts, support workers and promote an orderly transition.

New policies for electric vehicles, enhanced building codes and the Critical Minerals Strategy are published.

Safeguard Mechanism and Capacity Investment Scheme enhanced.

2024
Mandatory ISSB aligned climate disclosures for Australian companies legislated.

$22.7 billion Future Made in Australia package announced which aims to maximise the economic and industrial benefits of the move to net zero.

Australia's sovereign green bond

Green and social bonds are debt instruments used to finance projects that aim to drive environmental and social outcomes. In return for participating in these, investors receive regular, fixed income payments.

The projects may contribute to environmental objectives such as climate change mitigation and adaptation, biodiversity, natural resource conservation and pollution prevention and control. UniSuper has a long history of funding green themes, having corner-stoned the first AUD denominated World Bank Green Bond issue in Australia in 2014.

Included in this portfolio is Australia's first Green Treasury Bond, which was issued in June 2024. This program is designed to enable investors to back public projects that drive Australia's transition to net zero by 2050 and support environmental objectives.

The bond issue was well supported by both domestic and offshore investors with a final order book of $22.9 billion, more than three times the initial $7 billion transaction size.

Governance

UniSuper's Board determines the degree of risk that we're prepared to accept having regard to the best financial interests of our members. Our strategy and the key performance indicators of the Chief Investment Officer and Investments Leadership Team make specific reference to environmental, social and governance (ESG) factors, which include supporting the goals of the Paris Agreement. Climate change risk is an explicit risk that we consider across our investments. Below, we outline key responsibilities and accountabilities.

ENTITY	RESPONSIBILITIES
The Board	▪ Ensures that we discharge our duties as a trustee. ▪ Approves the risk appetite statement which includes climate-related risks. ▪ Monitors climate targets for investment portfolios.
Investment Committee	▪ Sub-committee of the Board chaired by an independent director. ▪ Reviews climate targets for investment portfolios and climate risk exposures. ▪ Monitors key Fund holdings and actions to assess whether they are aligned to climate targets.
Investments team	▪ Accountable for implementing all investment strategies approved by the Board and overseen by the Investment Committee. ▪ Recommends climate targets and ensures that our investment activities are aligned to our targets. ▪ Reviews and considers scenario analysis to inform understanding of long-term risks and opportunities and develops plans to mitigate risks. ▪ Produces an annual Climate report that details climate risk exposures, actions, and progress towards targets.
ESG specialists	▪ Dedicated professionals within the Investments team focused on ESG considerations. ▪ Leads company engagements on ESG, including climate approach and sustainability disclosures. ▪ Engages with investment analysts to collaborate on ESG engagement, proxy voting advice and due diligence on new assets. ▪ Monitors global best practice and emerging themes, regulatory change and advocacy.

Our approach

UniSuper invests $139 billion[1] on behalf of our members. Our primary duty is to act in the best financial interests of our members. As a superannuation fund, we invest for the long term. We are committed to achieving net-zero emissions across our Fund by 2050 in line with the Paris Agreement, however we don't expect the transition of our portfolio to net-zero emissions to be linear.

We focus on our investee companies achieving emissions reduction in the real economy, taking into account economic and societal impacts.

We continue to seek meaningful opportunities to invest in the companies involved in the industries, minerals and products necessary for a low carbon economy. This will include retaining exposure to some carbon-intensive industries to ensure an orderly energy transition.

Our disclosure is prepared in line with the Taskforce on Climate-related Financial Disclosures (TCFD) framework, and we are committed to aligning our reporting with the final Australian Sustainability Reporting Standard for Climate-related Financial Disclosures (ASRS 2) and specific superannuation fund guidance.

NET ZERO WHOLE-OF-FUND AND PORTFOLIO LEVEL BY 2050		
Contribute to a 43% reduction in Australia's emissions by 2030 through company engagement, advocacy, and by investing capital in companies that are instrumental in achieving a net-zero future.		
Actions		
Integration	***Active ownership and advocacy***	***Just and orderly transition***
Portfolio construction – factoring decarbonisation as a core investment theme	**Access and engagement – engaging and encouraging companies to reduce real-world emissions and accelerate the transition**	**Supporting a just and orderly transition to a low carbon economy**
Manage and monitor our portfolio by measuring our carbon footprint, monitoring our exposure to fossil fuels, and taking advantage of transition-related opportunities.	Use our position to engage with our Largest 50 Australian investments to reduce emissions and align business models over time. Engage with like-minded organisations and policymakers to develop policy settings that support and accelerate decarbonisation.	Support carbon intensive businesses and industries that are transitioning towards net zero and facilitate inclusive decarbonisation and growth. Use our position to engage with companies and regulators to address concerns of multiple stakeholders.

[1] As at 30 June 2024

Targets and activities

The table below shows our progress to date.

OBJECTIVE	TARGET	STATUS
Thermal coal exclusion	Exclude companies generating over 10% of their reported revenue from the extraction and production of thermal coal.[2]	Achieved. Process in place to identify and screen for excluded companies.
Company engagement	Engage with all Largest 50 Australian investments at least annually. Ongoing regular engagement with Australian companies.	Continued engagement program with the Largest 50 Australian investments. Ongoing engagement and participation in collaborative engagements by the UniSuper Investments team.
Net Zero 2050 portfolio	Achieve net-zero emissions in our investment portfolio by 2050. To achieve this, our Largest 50 Australian investments have: • Paris-aligned operational targets • interim targets • action plans to support targets.	See the 'Traffic light report' on pages 19 and 20 for our assessment of progress at 30 June 2024. See page 35 for look-through analysis of portfolio wide commitments by companies.
Enhancing the scope of carbon footprint coverage within our investment portfolio	Provide carbon reporting attributable to UniSuper's investment portfolio in line with The Partnership for Carbon Accounting Financials (PCAF) and improve coverage over time as guidance is provided by PCAF for asset classes.	We have improved coverage of the portfolio to include unlisted directly held property and infrastructure assets in addition to existing foot printing on listed equity and corporate bonds. See page 40 for details on our approach to calculating our carbon footprint.
Aligning our reporting to Australian Sustainability Reporting Standard (ASRS 2)	Align climate reporting to ASRS 2: Climate-related Financial Disclosures.	Ongoing.
Carbon neutral emissions for property	Wholly-owned direct property portfolio to maintain carbon neutral status.[3]	The wholly-owned direct property portfolio is Climate Active Carbon Neutral Certified for FY23 with FY24 currently underway. Scope 1 & 2 performance data has been assured to a limited level for CY23. Working with co-investors to achieve carbon neutrality for jointly owned direct property assets. Policies in place to achieve net zero for new additions as soon as practicable post-acquisition. Where we have properties held for development, we intend to incorporate sustainable development principles into construction and operation.
	Holdings in Australian unlisted property funds to be carbon neutral by 2030.	~80% of property funds we invest in report to have achieved carbon neutrality for their managed assets. Remaining funds have public targets to achieve carbon neutrality for their managed assets before 2030. Ongoing engagement with unlisted property managers and Australian real estate investment trusts (A-REITs) to work towards target.

[2] In exceptional cases, we may retain an interest in companies that have more than 10% of their reported revenues associated with thermal coal exploration and production, where they are well progressed in the sale or wind-down of those assets as we consider them to comply with the restriction. As at 30 June 2024, we did not hold any interests in companies that had more than 10% of their reported revenues from the extraction and production of thermal coal.

[3] This target excludes assets that are held for development or are not wholly owned by UniSuper.

OBJECTIVE	TARGET	STATUS
Net zero emissions for direct infrastructure	Majority of our direct unlisted Australian infrastructure assets to be net zero by 2030, with the remainder by 2050.[4]	Approx. 83% of direct unlisted Australian infrastructure assets have net-zero 2030 targets. This is calculated as a percentage of the number of assets. The one remaining asset has a net-zero 2050 target. Ongoing engagement with unlisted infrastructure managers to work towards target. Policies in place to achieve net zero for new additions as soon as practicable post-acquisition.
Incorporate shadow carbon price	Applied to Largest 50 Australian and 50 largest international listed equities.	Achieved. Shadow carbon pricing analysis undertaken for Largest 50 Australian listed equities and largest 50 international listed equities.
UniSuper corporate operations emissions	Carbon neutrality.	Achieved. Our corporate operations are carbon neutral for FY23 with accreditation for FY24 in progress.

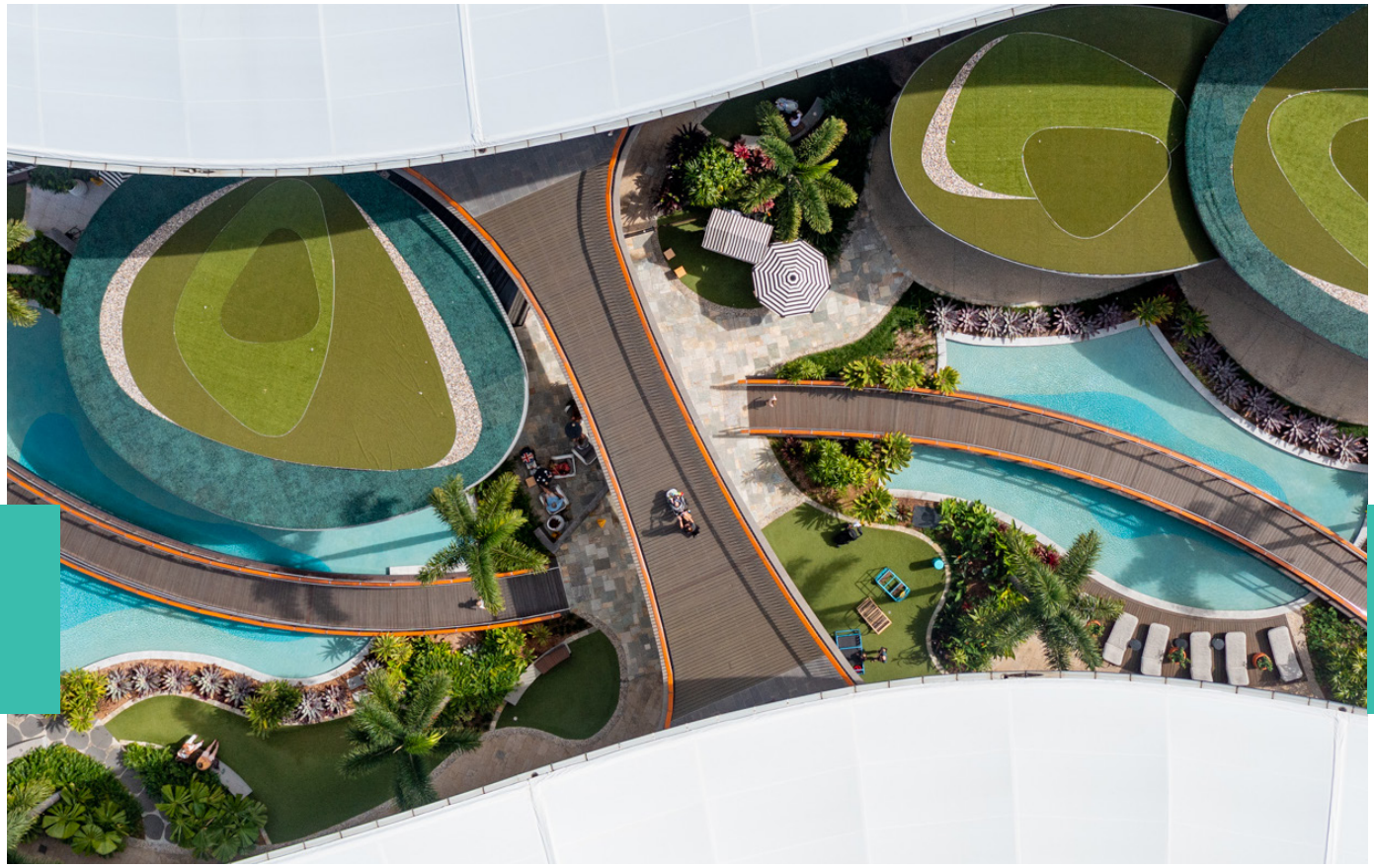


Image: Pacific Fair Shopping Centre, QLD. Pacific Fair is Climate Active Carbon Neutral Certified for FY23 | Source: GPT

[4] Excludes public-private partnerships and infrastructure funds.

Portfolio construction and investment

We see decarbonisation as a core investment theme for at least the next decade. We expect all our investee companies to:

- accept that decarbonisation is essential and inevitable
- proactively mitigate and manage climate change risks in their business and supply chains
- set emissions reduction targets
- disclose a decarbonisation plan and climate disclosures in line with the ASRS 2: Climate-related Financial Disclosures.

The risk to company earnings from climate change is one of many factors we consider when assessing a company's earnings sustainability.

INVESTING IN THE TRANSITION TO NET ZERO

Achieving the goals of the Paris Agreement and decarbonising our planet requires trillions of dollars of investment. We seek opportunities to invest in companies that support decarbonisation while providing attractive returns for our members. There will be risks involved, and not all investment opportunities will be profitable, so a disciplined approach is required.

The transition to a net-zero economy presents opportunities to invest in companies adapting their business models to succeed in a low-carbon world, as well as those providing the necessary infrastructure, critical minerals, and metals to support this transition. This includes commodities, utilities, and energy generation and storage solutions needed to achieve a net-zero economy. Below is a table outlining some of our key holdings.

INVESTING IN SUPPORTING INFRASTRUCTURE AND MATERIALS

The resources sector provides vast quantities of raw materials for the energy transition, including steel, copper, nickel and other commodities. These will be needed as we move from fossil fuels to renewable power generation and battery and fuel-cell based electric vehicles, as well as in existing applications like construction, transport, and electronics. Some of our largest investments, such as BHP, Rio Tinto and South32, produce many of these metals and minerals.

These products currently rely on high emissions processes to make them suitable for use. When we engage with resources companies, we encourage them to reduce the carbon intensity of their products and to have robust environmental and social risk management. See page 28 for a case study on how we engaged with BHP.

	COMMODITIES	UTILITIES	SOLAR	WIND	BATTERY STORAGE HYDROGEN AND ENERGY EFFICIENCY	ELECTRIC VEHICLES
SAMPLE OF HOLDINGS AS AT 30 JUNE 2024	BHP	nationalgrid	SUNPOWER	Vestas	SAMSUNG SDI	TESLA
	Rio Tinto	Dominion Energy	ENPHASE	tpi COMPOSITES	Kingspan	BYD
	Pilbara Minerals	AMERICAN ELECTRIC POWER	solaredge	CS WIND	ROCKWOOL	YADEA
	SOUTH32	NEXTera ENERGY			PLUG POWER	
	igo					

Investing in private markets

Over the year to 30 June 2024, we added to our Private Markets portfolio a USD 400 million commitment to Macquarie Asset Management's Green Energy and Climate Opportunities Fund (Macquarie Green Fund). This is a quality long-term asset aligned to the long-term time frame of members. This investment involved many months of due diligence by our in-house Investments team.

Macquarie Green Fund, investing in the global energy transition and climate opportunities

Macquarie Green Fund is an open-ended fund operated by Macquarie Asset Management, an experienced manager with strong financial backing, global networks and deep expertise.

Macquarie Green Fund invests in large scale, mature sustainable technologies to support the transition to net zero and to help meet sustainable energy needs in Australia and overseas. It aims to provide diversified exposure to the global renewable sector with a growing pipeline of opportunities across different regions, technologies, power markets, renewable resources and asset lifecycle stages.

The initial portfolio is expected to include six investments across the Americas, Asia-Pacific and Europe. These include Galehead Development, Treaty Oak Clean Energy, Aula Energy, Blueleaf Energy, Broadhelm Renewables and Forliance.

AMERICAS

Galehead Development

A US-based renewable platform focused on providing specialist services in early/mid stage development including exploration and prospecting, land acquisition, field operations and project management. Its capabilities include expertise in site selection enabled by its proprietary geospatial analytics platform. Galehead is partnering with utilities, independent power producers and corporates to develop more than 10 GW of utility-scale solar, onshore wind and energy storage projects.

Treaty Oak

A US-based renewable platform with end-to-end capabilities to develop, commercialize, build, own and operate solar and storage assets through their lifecycle. The company has expertise in US power markets, offtake structuring and late-stage development execution. It is developing more than 4 GW of utility-scale solar and energy storage projects.

ASIA PACIFIC

Blueleaf Energy

A pan-Asian renewables platform focused on onshore wind, solar and energy storage with projects in development, construction or operations across four key Asian markets – Taiwan, Japan, India and Southeast Asia. The company has ~0.8 GW of secured assets serving corporate and industrial consumers and large utilities.

EUROPE

Broadhelm Renewables

An offshore wind company that will seek to gradually build a diversified global portfolio of offshore wind assets. It benefits from technical capabilities and pipeline of an experienced global offshore wind developer through partnership with Corio Generation. Its first investment is Outer Dowsing, a 1.5 GW fixed bottom offshore wind farm off the east coast of England, currently in development.

Forliance

A leading developer of high-quality, nature-based carbon offsets with a project development pipeline in South and Central America.

Source: Macquarie Asset Management as at 30 June 2024. The gigawatt (GW) of green energy assets reflects 100 per cent nameplate capacity of each asset, not the proportion owned/ managed by Macquarie.

Macquarie Green Fund Australian-based renewables

Aula Energy is an Australian-headquartered renewable energy business created to develop, build and operate onshore wind, solar and energy storage projects across the Australian market with potential expansion into New Zealand markets. It has secured an initial ~4 GW of advanced development rights comprising wind and solar developments, spanning five states in Australia and is expected to expand and grow over time.

PROJECTS

Boulder Creek Wind Farm

Located 40m southwest of Rockhampton Queensland, Boulder Creek Wind Farm has development approval for up to 60 turbines. The project benefits from a strong wind resource and profile which complements existing local solar farms to provide round-the-clock power to the Queensland grid. The project has been approved by the Queensland government and the Commonwealth Government. Construction of the first stage of the wind farm is expected to begin in 2024. Stage one will comprise 38 turbines with a nameplate capacity of 228 megawatts (MW).

Georgetown Hills Renewable Energy

Investment in Georgetown Hills Renewable Energy, a South Australian-based business, to develop the Carmody's Hill Wind Farm in South Australia. The project has development approval for up to 270 MW nominal capacity from 45 turbines with battery storage.

Green Wind Renewables

Partnership with Green Wind Renewables to develop large-scale onshore wind farms of up to 2.4 GW in Western Australia.

Image: Numurkah Solar Farm, Drumanure, Victoria

Limiting exposure to certain industries

Our role as a responsible investor is to strike a balance between emissions reductions and an orderly transition. We will limit our exposure to certain industries where we consider it prudent risk management, typically, where we see no viable pathway to decarbonisation.

We recognise that high-emitting sectors will need to transition to low emissions and companies in these sectors will require ongoing capital.

While divestment appears a simple solution, this means that a company's emissions simply transfer to another investor without any lasting impact on real world emissions.

CAPPING OUR EXPOSURE TO FOSSIL FUELS

Fossil fuels have a fundamental role in the energy transition. UniSuper's Board has set a look-through fossil fuel exposure limit of 7% with a 5% trigger for monitoring. This cap should not be read as a target, it has been set so that risks can be managed in a practical manner, and to allow for share price variations and possible mergers with other funds.

THERMAL COAL

We see thermal coal as the fuel most at risk in the transition to a low carbon economy. We have a six-monthly process for identifying and screening out companies that generate greater than 10% of their reported revenues from thermal coal exploration and production. In exceptional cases, we may retain an interest in companies that have more than 10% of their reported revenue from coal exploration and production if they're in the process of divesting their thermal coal business.[5]

Contributing to a just and orderly transition

Financial markets and market participants all have a role in ensuring a just and orderly transition to a low-carbon economy that is inclusive and minimises disruption. A just transition implies that underdeveloped countries and certain segments of society are not unfairly bearing the cost of the transition. An orderly transition implies that we get the sequencing right.

Our role requires a balanced and pragmatic approach that carefully considers both risks and opportunities for our portfolios. We also consider how decarbonisation is progressing across the economy. As a large and diversified investor, we are well placed to encourage climate action by using our holdings to support alignment of business strategies to low carbon business models. We also engage with policymakers to ensure that supportive policy frameworks are in place.

[5] As at 30 June 2024, we did not hold any interests in companies that had more than 10% of their reported revenues from the extraction and production of thermal coal.

Navigating Australia's net-zero transition: Balancing diverse energy needs with a just and orderly transition

Australia's journey to net-zero emissions requires balancing environmental commitments with energy security, affordability, and community needs. While these objectives are interconnected, trade-offs are inevitable.

A recent example is the New South Wales Government's decision to delay by at least two years the Eraring Power Station's closure, originally set for mid-2025. This decision followed a warning from the Australian Energy Market Operator (AEMO) that its closure would sharply increase wholesale power prices and the risk of blackouts. Other states face similar challenges due to rising costs, labour shortages, and community opposition to large-scale renewable projects. This has created a timing mismatch between phasing out fossil fuels and scaling up renewables.

There has also been increasing attention on the role of gas in transitioning Australia's electricity grid. AEMO forecasts a gas supply shortfall for southern states by 2028, highlighting the need for new investment in gas supply for the domestic market. AEMO's 25-year plan confirmed the role of gas-powered generation in ensuring low-carbon energy security during periods of low renewable output. The Australian Government's Future Gas Strategy further emphasised the importance of gas for energy security and affordability during the transition to net zero. Although Australia has abundant gas reserves, much of it is locked into long-term LNG export contracts with buyers in Japan, South Korea, and China, which limits supply for the domestic market.

AUSTRALIAN GOVERNMENT FUTURE GAS STRATEGY

Principle 3: New sources of gas supply are needed to meet demand during the economy wide transition.

"New sources of natural gas supply are needed to meet demand during the transition. Without continued investment in our gas sector and development of supply sources, Australia faces the risk of annual supply gaps emerging by 2028 on the east coast, and by 2030 on the west coast." [6]

SUPPORTING AN ORDERLY TRANSITION

As investors, we adopt a pragmatic approach, supporting the transition to renewable energy while recognising the continued need for gas-powered generation to maintain energy security and affordability. There are differing views and scenarios on the role of gas; we believe that domestic pipeline gas will play a critical role in Australia's medium-term energy transition, as forecasted by AEMO's gas shortfall projections. The Beetaloo Basin, for instance, is well positioned to supply cost-effective, lower-carbon domestic gas.

APA: PIPELINE PROVIDER FOR THE PROSPECTIVE BEETALOO BASIN

The Beetaloo Sturt Plateau (SPP) project is a proposed 35km underground pipeline in the Northern Territory intended to be developed to transport gas to Darwin for a nine to 15 year period. To date, APA has considered only this project for capital investment which will deliver gas to Territory power generators. The project remains subject to a Final Investment Decision (FID).

APA is a major energy infrastructure business which owns and operates a portfolio of gas, electricity, solar and wind assets across Australia. APA was selected as the pipeline partner for the SPP project in a competitive process, suggesting that the project would proceed regardless of APA's involvement.

It is important to differentiate which parts of the project fall under APA's net-zero target and emissions reduction plan. While APA must ensure its pipeline infrastructure aligns with its net-zero 2050 commitment, the emissions associated with the transportation of gas (where APA does not sell to the end user) is not included in APA's Scope 1, 2 or 3 emissions. This means that the emissions from any gas extracted from the Beetaloo basin and combusted elsewhere would not rest with APA.

We have engaged with APA on the SPP project, seeking information on due diligence conducted on counterparty risk, inclusion of growth projects in existing emissions reduction targets, commercial features of domestic versus imported gas, and its engagement with First Nations stakeholders.

We are satisfied with APA's current approach to the SPP project. If APA does proceed to FID, we understand that updates on how the new pipeline fits within its emissions reduction plan will be provided in APA's future climate reports. Given the project's early stage, we will continue to engage with APA and monitor its development closely.

[6] Australian government Future Gas Strategy, page 29.

Advocacy

Policy settings are critical to the net-zero transition. We actively contribute to the policy landscape by engaging with policymakers and regulators. Over the year, we advocated for settings focused on incentivising and accelerating private sector investment in the transition. This included:

- our direct participation in the Federal Government's Investor Roundtable on net-zero transformation
- supporting the development of six sector decarbonisation plans to help guide Australia's transition to net zero
- engaging on Australia's Green Bond Framework to ensure alignment with our investment principles for green and social bonds
- engaging with the Australian Sustainable Finance Institute on the development of Australia's first sustainable finance taxonomy to ensure its principles and guidelines support investment and remove barriers to sustainable projects
- engaging with various parties on the draft legislation for the development of mandatory, standardised, internationally aligned climate reporting in Australia (ASRS), including:
  - Commonwealth Treasury
  - Australian Accounting Standards Board (AASB)
  - International Sustainability Standards Board (ISSB)
  - Auditing and Assurance Standards Board (AUASB).

POLICY LEVERS TO PROMOTE INVESTMENT IN THE TRANSITION

We are also working with our peers to develop solutions where we see barriers that prevent investment in particular opportunities. In partnership with IFM Investors and major profit-to-member superannuation funds, we supported a policy blueprint paper that identifies solutions to help drive greater investment into Australia's energy transition. The *Super-powering the energy transition: A policy blueprint to facilitate superannuation investment* report makes recommendations to governments on policy levers to facilitate investment in sustainable aviation fuel, batteries, transmission, renewable energy and electric vehicle charging infrastructure.

Pleasingly, we have seen key policy developments that help build the foundations to attract and enable investment in the transition through Future Made in Australia. This aims to facilitate billions of dollars of investment over the next decade in areas such as renewable hydrogen, critical minerals processing, green metals, low carbon liquid fuels and clean energy manufacturing, including battery and solar panel supply chains.

ADVOCACY THROUGH INDUSTRY ASSOCIATIONS

Collaborating within a collective body is also an effective mechanism for investors to advocate on climate-related issues. During the last financial year, two of our industry associations—the Australian Council of Superannuation Investors (ACSI) and the Investor Group on Climate Change (IGCC)—engaged policy makers on behalf of Australian and global investors.

Topics covered included:

- Australia's emissions reduction targets and Climate Change Authority
- the development of 2035 targets for Australia's NDCs
- advocating for the development of the Net Zero Economy Authority (NZEA) to identify and coordinate opportunities and facilitate a just and orderly transition in Australia
- introduction of the Taskforce on Nature-related Financial Disclosures
- the development of the Net Zero Economy Authority.

View ACSI's policy submissions here. View IGCC's policy submissions here.

Engagement and voting activities

Engagement, voting and advocacy are the core pillars of our approach to managing climate risks and opportunities. We engage directly with our Largest 50 Australian investments and policy makers to encourage more ambitious actions and to ensure the architecture and critical enablers for accelerating a low carbon transition are in place.

Ownership gives us the opportunity to directly engage with companies and exercise our voting rights. Divestment, while always an option, eliminates the ability to engage.

IN-HOUSE INVESTMENT TEAM

Our Investments team manages over 70% of our funds in-house. The team has expertise across all major Australian and global asset classes. We also have internal expertise across investment operations, legal and compliance, and a dedicated ESG team working closely with our portfolio managers.

GENUINE ABILITY TO ENCOURAGE CHANGE

SCALE + **IN-HOUSE MANAGEMENT** = **ACCESS AND ENGAGEMENT**

Given our presence in the Australian market, our potential influence is strongest when dealing with companies in our Australian portfolios. We engage directly and regularly with company management and boards to support a Paris-aligned decarbonisation transition. Our engagement efforts are supported by our voting at company meetings. Please see our website for full details of our voting.

Since 2020, we have identified and set targets for the Largest 50 Australian investments across our Fund. As at 30 June 2024, these companies represented 66% of our total Australian investments by dollar value.

The expectations we set for our investee companies include:

- a proactive approach to reducing emissions in line with the Paris Agreement
- an understanding of the climate risks embedded in their assets and businesses
- transparent disclosure of their actions to manage climate risks and opportunities.

As climate ambition develops, so have our expectations of companies. We expect companies to go beyond setting a Paris-aligned 2050 commitment. Where industries can achieve net zero earlier, we expect them to do so, and all companies should be setting interim targets with climate management action plans to achieve them.

We use our position to encourage companies to reduce their carbon emissions. This is how we seek to achieve our 2030 goal of contributing to a 43% reduction in Australia's emissions and our 2050 target of a net-zero investment portfolio.

Depending on our ownership exposure we may engage directly with companies, or collaboratively with other like-minded organisations and leaders in climate change research.

Our Largest 50 Australian investments

Traffic light report

Traffic light report

Our *Traffic light report* is a proprietary initiative focusing on our Largest 50 Australian investments. These are both unlisted assets with Australian based operations and ASX-listed companies including debt and equity holdings. The report provides our assessment of companies' operational emissions reduction targets together with the progress we see through our engagement.

At 30 June 2024:

Paris aligned 2050 target: 48 of our 50 Largest Australian investments received a green light, up from 45 last year.

Interim targets: 42 of our 50 Largest Australian investments received a green light, up from 39 last year.

Action plan: 38 of our 50 Largest Australian investments received a green light, up from 36 last year.

This year, we focused on clarifying the difference between carbon neutrality and net zero and critically reviewed the use of carbon credits and offsets against reducing emissions directly.

In cases where companies used offsets, we evaluated the credibility and effectiveness of the offsets used. Our case study on NEXTDC provides an example of why and how companies are using offsets.

We are pleased to note significant progress among some companies that previously lagged. For instance, companies like Resmed, CSL, and Aristocrat, though not major emitters, have demonstrated substantial year-on-year improvements through rigorous engagement aimed at enhancing their climate strategies and setting ambitious targets. Looking ahead, we anticipate more detailed action plans in future sustainability reports from these companies.

METHODOLOGY

Our assessment includes an analysis of companies' lagging indicators, for example, emissions performance, and forward-looking metrics such as emissions reduction targets. Forward-looking targets are an important metric for providers of capital. They enable us to easily assess, compare and communicate companies' climate change goals and give us an indication of the trajectory of our material investments.

Where companies receive 'green lights' in each category, it means they have set a net-zero target by 2050 or earlier, an interim target that is ambitious and sector specific, and a strategy that outlines actions to reduce emissions in alignment with targets.

Over time, increasing ambition and delivery on targets is expected, in line with the latest scientific findings and technological advancements. This means that our traffic light assessments are calibrated and, in some cases, a company which previously received a 'green light' may be downgraded.

For the full methodology and the factors considered when assessing companies please refer to the Traffic light methodology on page 67.

TRAFFIC LIGHT REPORT*

PORTFOLIO COMPANY[7]	NET ZERO	INTERIM TARGET	ACTION PLAN
Communication services and IT			
Chorus	🟢	🟢	🟢
NEXTDC	🟡	🟡	🟡
Telstra Group	🟢	🟢	🟢
Consumer			
Aristocrat	🟢	🟢	🟡
Coles Group	🟢	🟢	🟢
The Lottery Corporation	🟢	🔴	🔴
Wesfarmers	🟢	🟢	🟢
Woolworths Group	🟢	🟢	🟢
Financials			
ASX Ltd	🟢	🟢	🟢
ANZ Group	🟢	🟢	🟢
Bank of Queensland	🟢	🟢	🟢
Bendigo and Adelaide Bank	🟢	🟡	🟢
Commonwealth Bank of Australia	🟢	🟡	🟢
National Australia Bank	🟢	🟢	🟢
Macquarie Group	🟢	🟢	🟢
Westpac Banking Corp	🟢	🟢	🟢
Insurance Australia Group	🟢	🟢	🟢
QBE Insurance Group	🟢	🟢	🟢
Suncorp Group	🟢	🟢	🟢
Health care			
CSL	🟡	🟢	🟡
Resmed	🟢	🔴	🟡
Industrials			
Cleanaway Waste Management	🟢	🟢	🟡
Transurban Group	🟢	🟢	🟢
Qube Holdings	🟢	🟡	🟡

* Traffic light methodology on page 67.

7 Assessments were based on available information as at 31 July 2024. Traffic light report does not include development assets.

PORTFOLIO COMPANY[7]	NET ZERO	INTERIM TARGET	ACTION PLAN
Infrastructure			
Adelaide Airport	●	●	●
Brisbane Airport	●	●	●
Sydney Airport	●	●	●
Forico	●	●	●
Hancock Victorian Plantations	●	●	●
Materials and utilities			
APA	●	●	●
BHP Group	●	●	●
Fortescue Metals	●	●	●
James Hardie Industries	●	●	●
Northern Star Resources	●	●	●
Rio Tinto	●	●	●
South32	●	●	●
Real estate			
Australian Core Retail Trust	●	●	●
Brookfield Place	●	●	●
Charter Hall Group	●	●	●
Goodman Group	●	●	●
Goodman Australian Industrial Fund	●	●	●
GPT Group	●	●	●
GPT Wholesale Office Fund	●	●	●
ISPT Core Fund	●	●	●
Karrinyup Shopping Centre	●	●	●
Marrickville Metro Shopping Centre	●	●	●
Mirvac Wholesale Office Fund	●	●	●
7 Macquarie Place	●	●	●
Scentre Group	●	●	●
Vicinity Centres	●	●	●

[7] Assessments were based on available information as at 31 July 2024. Traffic light report does not include development assets.

Ambition meets pragmatism: 2030 targets

The transition to a greener economy is facing significant challenges, particularly in achieving clean, secure, and affordable energy. Key issues include project permitting delays, difficulties in securing capital, and regulatory frameworks that impede construction and investment.

Countries are setting ambitious emissions reduction and renewable energy targets, but the challenges of deploying the necessary infrastructure and slow progress of technology solutions are making these goals increasingly difficult to achieve. The AEMO 25-year Integrated System Plan emphasised the need to address delays in building transmission infrastructure caused by regulatory approvals and the complexities of community engagement to ensure Australia can meet its 82% renewable electricity generation target.

Similarly, companies are working to meet ambitious voluntary carbon reduction targets for 2030. Progressing emissions reductions is challenging, as most of the "low-hanging fruit" opportunities have been taken, leaving businesses to contend with slow technological advancements and insufficient financial and regulatory incentives for meaningful decarbonisation.

Policy uncertainty and low projected return on investment in decarbonisation projects also pose risks. Breakthrough technologies are often required, but the costs of these projects frequently exceed expected returns making them less attractive for investment.

In response, we've focused our engagement over the past year on two key areas: the credibility and ambition of corporate climate commitments and the challenges in achieving decarbonisation targets. These factors together can expose investors to potential transition risks and reveal the growing tension between ambition and pragmatism.

SCIENCE-BASED ASSESSMENTS

In 2023, we assessed the credibility of the medium-term targets of our Largest 50 Australian investments using 'science-based assessments'. We benchmarked medium-term targets for 36 of our Largest 50 Australian investments against science-based 1.5°C scenarios referencing methodologies from Climateworks Centre and the Science Based Targets Initiative (SBTi).

ENGAGEMENT WITH COMPANIES

We continue to engage with companies on the credibility of their decarbonisation pathways, focusing on their progress toward 2030 emissions reduction targets. Companies cite barriers such as regulatory delays, unclear government support, rising costs, and slow technology deployment as reasons for slower-than-expected progress.

Scope 3

A company's supply chain emissions

Scope 3 emissions originate from sources outside a company's direct operations, for example, they may include emissions from purchased materials, goods and services, the use or processing of sold goods, transportation, waste and business travel.

Scope 3 emissions are the direct emissions of another entity, making them challenging to estimate and often beyond the control of the reporting company. They may be produced several tiers down a company's supply chain and are sometimes called 'supply chain emissions'.

Material Scope 3 emissions for each company will vary greatly depending on the sector as shown in the examples below:

SECTOR	EXAMPLE OF SCOPE 3 EMISSIONS
Real estate	Emissions from cement and steel used in construction of buildings
	Emissions from electricity used by tenants
Iron ore mining	Emissions from steelmakers using iron ore
Airports	Emissions from airlines
Banks	Emissions from the companies they finance

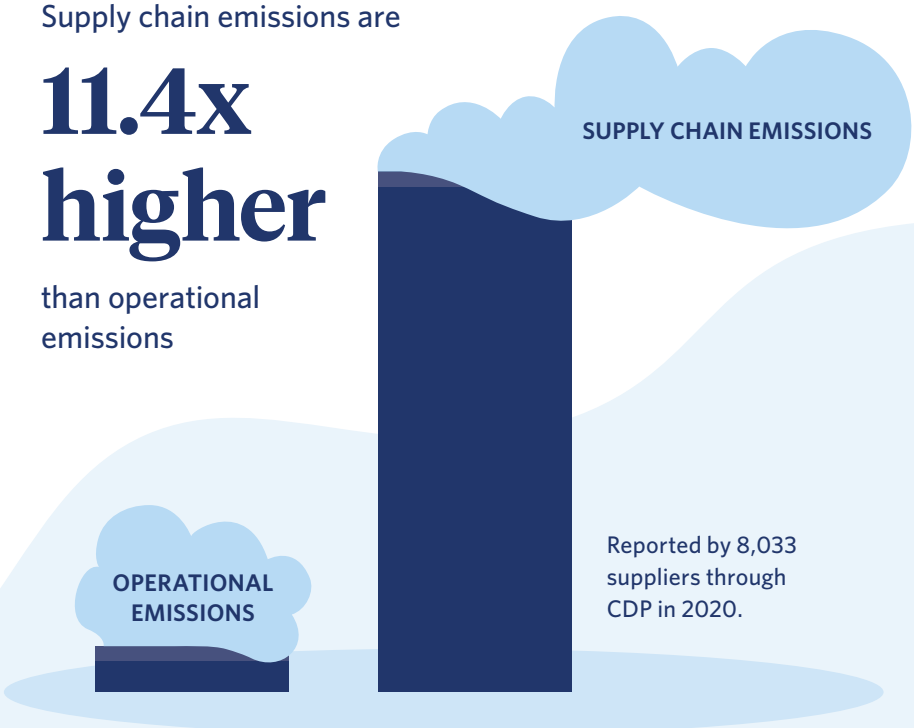
Understanding Scope 3 emissions is essential for fully assessing a company's climate risk; it can also highlight potential opportunities.

Companies that produce high-emission products may face transition risks in a decarbonising economy due to carbon pricing or shifting consumer preferences. Companies that contribute to reducing Scope 3 emissions, like recycling firms, may discover commercial opportunities. For example, automotive manufacturers that produce electric vehicles with lower Scope 3 emissions are better positioned than traditional car makers to capitalise on the shift towards electrification.

Supply chain emissions are

11.4x higher

than operational emissions



CDP Technical Note: Relevance of Scope 3 categories by sector 'Transparency to Transformation: A Chain Reaction, CDP Global Supply Chain Report 2020.' February 2021

We regularly engage with companies on Scope 3 emissions. This year, we assessed our Largest 50 Australian investments on how they have incorporated Scope 3 emissions into their decarbonisation considerations and approach.

Our assessment focused on:

- measurement, reporting, and target setting for material Scope 3 emissions categories, including those within operational control.
- incorporation of operational Scope 3 emissions into business decarbonisation strategy, and actions underway to reduce emissions.
- efforts to estimate, set targets for and reduce material Scope 3 emissions outside operational control through engagement, research and partnerships.
- disclosure of assumptions and external factors for achieving Scope 3 emissions reductions, such as policy, regulation and new technology.

In our portfolio, Scope 3 targets typically focus on reducing emissions intensity (i.e., emissions released per unit of revenue or production) or supply chain engagement, where companies work with suppliers, customers, and tenants to ensure they have their own emissions reduction targets and disclosures.

Through our engagement, we aim to identify key risks within the supply chain that may expose companies to future climate and/or financial liabilities.

As a diversified investor, we invest in companies across various supply chains. We use information and insights from these investments to support engagement across industries and to identify investments that will progress the transition.

Companies are addressing Scope 3 emissions in different ways, examples include:

- BHP and Rio are decarbonising their downstream iron ore supply chain. A case study on page 28 details the collaboration between BHP, Rio Tinto and BlueScope Steel to explore low-carbon steelmaking technologies.
- Consumer-facing companies like Woolworths and Coles are implementing circular economy initiatives to better understand and manage their supply chains.
- CSL, Chorus and Aristocrat are actively engaging with upstream suppliers.

PROGRESS ON SCOPE 3 EMISSIONS

Targets set for material Scope 3 emissions categories. Action plan underway or disclosed to begin addressing Scope 3 emissions reductions.
Measurement and disclosure of material Scope 3 emissions. Discussion of possible actions underway to begin reducing Scope 3 emissions.
None or some disclosure of Scope 3 emissions but no target or action plan to address. Company only addresses operational Scope 3.

Approaches to the climate challenge

Company perspectives

The decarbonisation of our portfolios depends on the efforts of the companies we invest in. For this to happen, we need our investee companies to do the heavy lifting in parallel with government, industry, and consumers.

Australia's biggest banks' approach to climate change and financing the future

In Australia, corporate responses to climate change vary across industries. The financial sector, despite having low operational emissions, plays a key role helping businesses transition; banks must consider climate risks and opportunities within lending portfolios. In contrast, heavy industry and mining have higher operational emissions due to the energy-intensive processes involved in mining and manufacturing.

Banks play a crucial role in supporting Australia's transition to net zero. Their investment and lending activities significantly influence various sectors of the economy in achieving global decarbonisation goals, including challenging sectors.

Banks can influence emissions in two ways: either directly through their operations or indirectly through their financing activities. Major Australian banks have made substantial progress towards reducing their operational Scope 1 and 2 emissions and consistently achieve carbon neutrality year on year. However, it is through their financing activities (Scope 3) where banks can influence emissions of the businesses they lend to. Given the small operational footprint of banks relative to their financing activities, we focus on the latter.

NET ZERO BANKING ALLIANCE

Australia's largest banks have signed up to the Net Zero Banking Alliance (NZBA). The NZBA requires signatories to have targets set by 2025 covering all or a substantial majority of the carbon-intensive sectors of their loan book where data and methodologies exist. These sectors include agriculture, aluminium, cement, coal, commercial and residential real estate, iron and steel, oil and gas, power generation, and transport.

As at 31 July 2024, ANZ, Westpac, and NAB had set targets across nine of these sectors. CBA had set targets across seven of these sectors and was on track to announce targets for a further two sectors in the second half of 2024. The signatories are also committed to reviewing and updating their sector decarbonisation targets by 2027.

FOSSIL FUEL EXPOSURES AND FINANCING OF GREEN ASSETS

Fossil fuel exposures among the major banks have been declining annually, while their financing of green assets and sustainable finance initiatives is increasing. A substantial portion of the banks' remaining fossil fuel exposure is driven by exposure to oil and gas customers. While their overall exposure is low, all major banks are committed to supporting existing customers aligned with Paris Agreement goals and restricting new lending to those not committed to Paris-aligned strategies.

Collectively, the banks have committed to providing significant funding to sustainable finance initiatives by 2030.

MAJOR AUSTRALIAN BANKS: CLIMATE TARGETS AND PROGRESS

	ANZ	*CBA*	*WBC*	*NAB*	*MQG*
Net zero 2050 commitment	Yes	Yes	Yes	Yes	Yes
NZBA	Yes	Yes	Yes	Yes	Yes
Current sustainable financing targets	$100b by 2030	$70b by 2030	$55b of lending and $40b of bond facilitation by 2030	$80b by 2030	In FY23 invested $2.2b in green energy assets
Thermal coal exposure	0.02%	0.09%	0.01%	0.02%	0.003%
Oil and gas exposure	0.50%	0.18%	0.56%	0.41%	1.04%
Customer required credible transition plan	30 Sept. 2025	1 Jan. 2025	30 Sept. 2025	1 Oct. 2025	End of 2022
Sectoral financed emissions (out of 10 NZBA carbon intensive sectors)	9	7	9	9	4*
Scope 3 Traffic Light	●	●	●	●	●

Notes: ANZ, NAB & MQG provide thermal coal and oil and gas exposure as an 'exposure at default' (EAD). CBA and Westpac use 'total committed exposure' (TCE). Most recently available information as at 31 July 2024 was used. For all banks, thermal coal and oil and gas exposures relate to their loan books only.

* Accounts for over 80% exposures to NZBA carbon intensive sectors. Macquarie expect to set targets for the remaining material carbon intensive sectors in their next report.

Best-in-class data centre design: NEXTDC

Data centres are essential to the digital economy. They serve as the backbone for critical infrastructure and services like technology platforms, banking systems, telecommunications and medical facilities. They support search engines and e-commerce, artificial intelligence, data storage, blockchain technology and social media. Data centres account for roughly 3% of global electricity demand and 1% of global carbon emissions.[8] While data centres are becoming more efficient in their power use, the world's ongoing reliance on technology in everyday life means they will be an ongoing driver of electricity demand. Ongoing government and industry efforts on energy efficiency, renewables procurement and technology research are key to managing future energy demand and emissions growth.

NEXTDC is an ASX100 listed technology company that operates data centres in Australia with offshore facilities being developed in Southeast Asia and New Zealand. The company offers co-located data centres where businesses can securely house and scale their IT infrastructure and can benefit from shared resources like meeting rooms. NEXTDC's in-house engineering team helps customers design and optimise data centre solutions for energy efficiency and sustainability.

OUR ENGAGEMENT ACTIVITY

Power costs are a major expense for NEXTDC and its customers, making energy efficiency a critical financial and strategic priority. Defining and implementing a decarbonisation pathway has been challenging due to factors such as growing data centre demand, reliance on the local electricity grid, and customer type. The data centres must maintain uninterrupted access to critical services, so a reliable baseload power is critical; renewables and storage are not yet a complete solution.

We began engaging with NEXTDC in 2017 on their decarbonisation plan. Customer emissions are a substantial part of NEXTDC's overall emissions profile, many of its customers already have renewable energy and carbon agreements in place. Given the challenges in Australia's transition to renewable energy, our initial discussions with NEXTDC focused on providing carbon offset solutions to customers as a stopgap until renewable energy sources become more reliable.

Through our engagement, we use industry knowledge to share best practices across sectors. For example, NEXTDC's collaboration with a carbon offset program led to a strategic partnership that developed an opt-in product, allowing NEXTDC customers to offset their emissions. UniSuper played a role in facilitating this collaboration.

More recently, our engagement has expanded to include data centre efficiency and assessing NEXTDC's progress toward developing short-term targets and a pathway to net zero.

PROGRESS

In evaluating NEXTDC for our traffic light assessment, we focused on material emissions from customers and the challenges the company faces to address this. NEXTDC is making significant progress through the following initiatives:

Energy efficiency and smart design

Targeting best-in-class energy efficiency and smart design in third-generation data centres, focusing on cooling requirements and maintaining low Power Usage Effectiveness (PUE). NEXTDC has achieved a PUE of 1.39, outperforming the industry average of 2.5 and best-in-class standards of 1.5, optimizing power usage for profitability and sustainability. PUE is the ratio of the total amount of power consumed by a data centre to the power used by IT equipment.

Customer engagement

NEXTDC's in house Engineering and Design teams work with customers to tailor design requirements to customer needs focusing on performance and energy efficiency, which minimises cost for customers. Customers can also offset their emissions from electricity via the "NextNeutral" program, a program that enables NEXTDC customers to achieve 100% carbon neutrality for IT footprints co-located in the company's data centres.

Novel technologies

As technology develops, NEXTDC is positioning itself to roll out energy efficient technology to customers and tailoring solutions for those customers willing to trial new technologies. For example, NEXTDC is Australia's first major 'immersion-cooling ready' co-location provider.

How do data centres stay cool?

Hardware continuously operating in data centres produces a lot of heat. If not properly managed, the heat can cause servers to malfunction. Finding the optimal operating temperature for data halls is a key design feature, to minimise the energy needed to cool the room but maximise server performance.

NEXTDC uses different approaches at different sites. For example, air-side free cooling can be used when cooler air from outside is brought inside. If the air outside is too warm, water can also be used to cool the air, like an evaporative air conditioner. The company is trialling new technology such as liquid cooling, where fluids are used to directly cool the servers. This technology significantly increases the output and energy efficiency of servers when compared to traditional air-cooling.

[8] Data centres and networks, IEA

Decarbonising the steel industry: BHP Group, Rio Tinto and BlueScope Steel

BACKGROUND

Decarbonising steel production involves more than merely enhancing operations at manufacturing sites; it requires addressing challenges through the value chain, including the availability of key raw materials and energy, the development of low-carbon solutions, and the advancement of technologies for ironmaking and slag separation.

A major challenge for Australian steelmaking is the lack of essential enablers such as iron ores of suitable quality, scrap steel, reliable and firmed renewable energy, and in the short term, natural gas, with hydrogen being a longer-term solution. Companies are exploring various pathways for future steelmaking, each at different stages of technological and commercial readiness.

While efforts are focused on reducing emissions in iron and steelmaking operations, it is important for investors and companies to engage across the entire value chain as many solutions sit outside of immediate manufacturing boundaries. High-grade iron ores are vital for efficient, low-emission steel production with current technology, whereas low-grade ores require more energy and processing. Existing green steelmaking technologies, such as direct reduced iron (DRI) and electric arc furnaces (EAFs), depend on sufficient scrap, higher-grade iron ores, and abundant, affordable renewable energy to optimise efficiency and cost-effectiveness. At present, the supply of high-grade ores is insufficient, highlighting the need to develop technologies capable of processing the abundant lower-grade ore from the Pilbara.

Emissions from converting iron ore to steel fall outside the operational control of Rio Tinto and BHP (Scope 3) but are within the operational scope of BlueScope Steel (Scope 1 and 2).

With material holdings in BHP Group, Rio Tinto, and BlueScope Steel, UniSuper is well-placed to engage across the steel value chain. Over the past year, we focused on how iron ore miners and steel manufacturers are collaborating to tackle this issue.

Over the financial year, we held many one-on-one meetings and participated in an additional seven collaborative meetings with these companies. Detailed below is our engagement with them and the notable progress made by each company.

Significantly, BlueScope, Rio Tinto, and BHP have partnered to develop a pilot electric smelting furnace (ESF) in Australia, combining BHP's and Rio Tinto's expertise in Pilbara iron ores with BlueScope's ESF technology experience. The pre-feasibility study is expected to conclude in 2025. If approved, the pilot facility could be commissioned as early as 2027.

BlueScope Steel

UNISUPER'S ENGAGEMENT ACTIVITY

As active owners, UniSuper has maintained a long-standing, collaborative engagement with BlueScope.

Over the past 12 months, our engagement has focused on several key areas. These include site-specific disclosures on decarbonisation pathways, disclosures on emissions performance for steelmaking assets, projects (both underway and planned) to enhance optimisation, and transformation and collaborative initiatives with iron ore miners.

In particular, we provided input on BlueScope's climate capital allocation disclosures and how its investments support its decarbonisation strategy. We offered feedback on the contextual information that BlueScope's stakeholders would need to understand its direct investments in decarbonisation projects climate initiatives and new technologies. We also discussed BlueScope's disclosure of how its indirect investments and operating expenditures contribute to sustaining and growing projects that also offer decarbonisation benefits.

PROGRESS

This year, BlueScope released its second Climate Action Plan, outlining its climate strategy, decarbonisation pathways, and emissions performance. The plan details how the company is investing in and increasing low-carbon steel production, improving operational efficiencies at traditional steelmaking sites, and optimising midstream processes beyond steelmaking.

The report provided significant updates, including new disclosures on site-specific emissions performance and projected decarbonisation pathways, along with updated information on the technological and commercial readiness of proposed solutions. Furthermore, BlueScope introduced a series of new disclosures on enhancements to its capital allocation approach. This included reporting on direct climate investments and other operating spend that contributes to emissions reduction benefits.

BHP and Rio Tinto

UNISUPER'S ENGAGEMENT ACTIVITY

As two of the world's largest iron ore miners, BHP and Rio Tinto are each expected to have a long-term net-zero target and a comprehensive action plan for Scope 3 emissions. When evaluating their action plans, we consider factors such as partnerships and investments in research and development (R&D) with steelmakers to reduce emissions in both traditional and emerging steelmaking processes. Our assessment includes analysing the financial value committed to steelmaking partnerships and ventures to date, covering various steelmaking pathways.

PROGRESS

We've observed progress by iron ore miners in addressing emissions from the downstream processing and use of the iron ore they sell. It is crucial that solutions and investments extend beyond future steelmaking pathways, which often rely on breakthrough technologies, to also include existing and emerging methods.

In addition to having established long term and interim targets for steel:

Rio Tinto

Provided detailed updates on key steel decarbonisation projects and objectives. The company has committed to enhancing disclosure on their plans and progress to reduce Scope 3 emissions from iron ore processing, including information on decarbonisation expenditure, project milestones, timelines, and abatement opportunities.

BHP

Shared updates on their contributions to reducing emissions from blast furnaces and integrating Pilbara iron ores into electric smelting and electric arc furnaces. During the 2023 financial year, they committed a total of USD 114 million (excluding in-kind contributions) to blast furnace, DRI/electric smelting, and electrolysis pathways.

Voting at company annual general meetings

The following case studies set out how we take into account climate risks when voting at company AGMs.

The management of physical and transition risks associated with climate change is one of many ESG related issues that we aim to address through our engagement activity. Exercising our right as a shareholder to vote at company Annual General Meetings (AGMs) is also a key element of our active ownership strategy and an accountability mechanism between a company and its shareholders. This includes voting on AGM resolutions such as Say on Climate, director elections, executive remuneration and climate related shareholder proposals.

We consider all resolutions on a case-by-case basis after engaging with companies and/or evaluating their current approach. We may support shareholder resolutions asking for climate related reporting or targets where companies are not reporting or acting to decarbonise their businesses.

We publish our proxy voting activity on our **website** as at 30 June and 31 December each year, with case studies also included in our *Responsible investment report*. Below we provide examples of our voting decisions at recent AGMs.

Woodside: A vote 'against' due to lack of ambition

BACKGROUND

After Woodside's 2021 Climate Report received record-low support globally, with only 51% of votes in favour at the May 2022 AGM, UniSuper continued collaborative engagement with other investors led by ACSI and CA100.

The main engagement aims for Woodside were:

- Demonstrating the resilience of Woodside's oil and gas portfolio, including former BHP Petroleum assets.
- Integrating climate considerations into strategy and final investment decisions to ensure resource risk, market volatility and capital and operating costs are considered.
- Outlining time frames and milestones for Woodside's new energy initiatives, especially addressing Scope 3 emissions.
- Developing a clear emissions reduction pathway from 2030 to 2050, including plans for structural emissions removal and robust reporting on offsets.

Last year, we were disappointed by the lack of progress leading up to the 2023 AGM and the Board's decision not to present a Say on Climate vote to shareholders. As a result, we voted against the re-election of several directors of the sustainability committee to hold the Board accountable for not addressing our concerns.

UNISUPER'S CONCERNS

As a pure-play upstream oil and gas company, Woodside faces higher disruption in the energy transition. Concerns over long-term earnings resilience, resource risks from expansion projects, and an inadequate response to investor requests persisted over the 2024 financial year. Ahead of the 2024 AGM, we emphasised the need for a shareholder vote on the climate report and advocated for board diversity, including expertise in new energy.

OUR ENGAGEMENT

We have worked collaboratively with ACSI and CA100. Progress was noted before the 2023 AGM, with commitments to include a climate-related resolution on the 2024 agenda and to engage with investors on key concerns. Between July 2023 and the 2024 AGM, ACSI led multiple engagement meetings, concentrating on resilience, new energy projects, decarbonisation plans and capital allocation.

While acknowledging some improvements in Woodside's 2024 climate report and the appointment of Ashok Belani to the Board, who brings expertise in new energy and innovation, we voted against the climate report for the second time at the 2024 AGM. Our decision was based on our belief that Woodside had not made sufficient progress in addressing investor requests.

NEXT STEPS

We believe that natural gas will continue to be an important energy source in the medium-term to aid the energy transition. Its role in the energy mix will vary significantly by region, with Asia (an important export market for Woodside) likely to maintain a higher proportion of gas for an extended period. As part of our collective engagement, we have contributed to several specific requests for the investor group to propose to Woodside over the next 12 months, while also working towards long-term objectives related to decarbonisation strategy.

We recognise that progress has been slower than desired and that multiple stakeholders are increasingly critical of oil and gas companies. At present, it is difficult for companies to commit to a 'Paris-aligned strategy' because country level commitments under the Paris Agreement are not aligned to 1.5 degrees Celsius. Without robust national policies, companies lack the regulatory incentives and frameworks necessary to prioritise decarbonisation efforts. This complicates investors' efforts to drive meaningful change and to hold companies accountable.

Santos: A vote 'for' to support investing in Carbon Capture Storage

Carbon Capture and Storage (CCS) involves capturing carbon dioxide (CO_2) from large emission sources or directly from the atmosphere and storing it underground. While CCS has been used in the oil and gas industry for years, direct air capture (DAC) is newer and still being scaled commercially. Captured CO_2 can be used in products like beverages and plastics, and researchers are exploring its use in low-carbon cement and biofuels. A key challenge is efficiently transporting CO_2 from capture sites to storage locations.

Globally, CCS facilities capture over 50 million tonnes of CO_2 annually, less than 0.1% of energy emissions. However, this covers only 40% of the capture and 60% of the storage needed for the International Energy Agency (IEA) Net Zero by 2050 goal. In Australia, key projects include Santos' Moomba and Bayu-Undan projects, ExxonMobil's Gippsland hub, and Chevron-Santos' Carnarvon Basin. Santos' Moomba project is expected to start CO_2 injection in late 2024 and aims to capture 1.7 million tonnes of CO_2 per year and earn Australian Carbon Credit Units (ACCUs).

Santos is actively involved in CCS as a key component of its strategy to address Scope 1 and 2 emissions. The Moomba project is a major part of this strategy, the Bayu-Undan project off the coast of Darwin is expected to address emissions from the Barossa field but is still several years away from implementation.

At the 2022 AGM, we voted in favour of Santos' Say on Climate proposal, recognising their advanced CCS plans compared to competitors. This year we are looking for successful commissioning and operation of the Moomba project, which will be a critical milestone for Santos' decarbonisation strategy. Effective implementation of CCS is essential for Santos' expansion and growth plans, and we expect clearer direction on how their CCS strategy is progressing to inform future Say on Climate votes.

Understanding our risks

We have a comprehensive risk management framework in place across our Fund, and climate risk is identified as a specific risk in our risk register. Across our investments, we identify, monitor, and take appropriate action to manage climate risks.

To understand climate risks, we consider a variety of possible global scenarios. We use these to test our assumptions about our investments and the associated risks and opportunities. We monitor changes and developments in policy and technology to inform our investment decisions.

We refer to a range of climate and economic models to assess how different assumptions influence how the world may look on the path to net zero 2050. Different scenarios use different assumptions to model a future state. These assumptions may or may not eventuate, so we constantly monitor assumptions against real world progress.

As an example, the IEA Net Zero Emissions Scenario is one of the most commonly referenced models outlining the necessary actions to achieve a net-zero economy. It relies on various assumptions to map a possible path toward net zero which, given current trends, may be viewed as ambitious or optimistic.

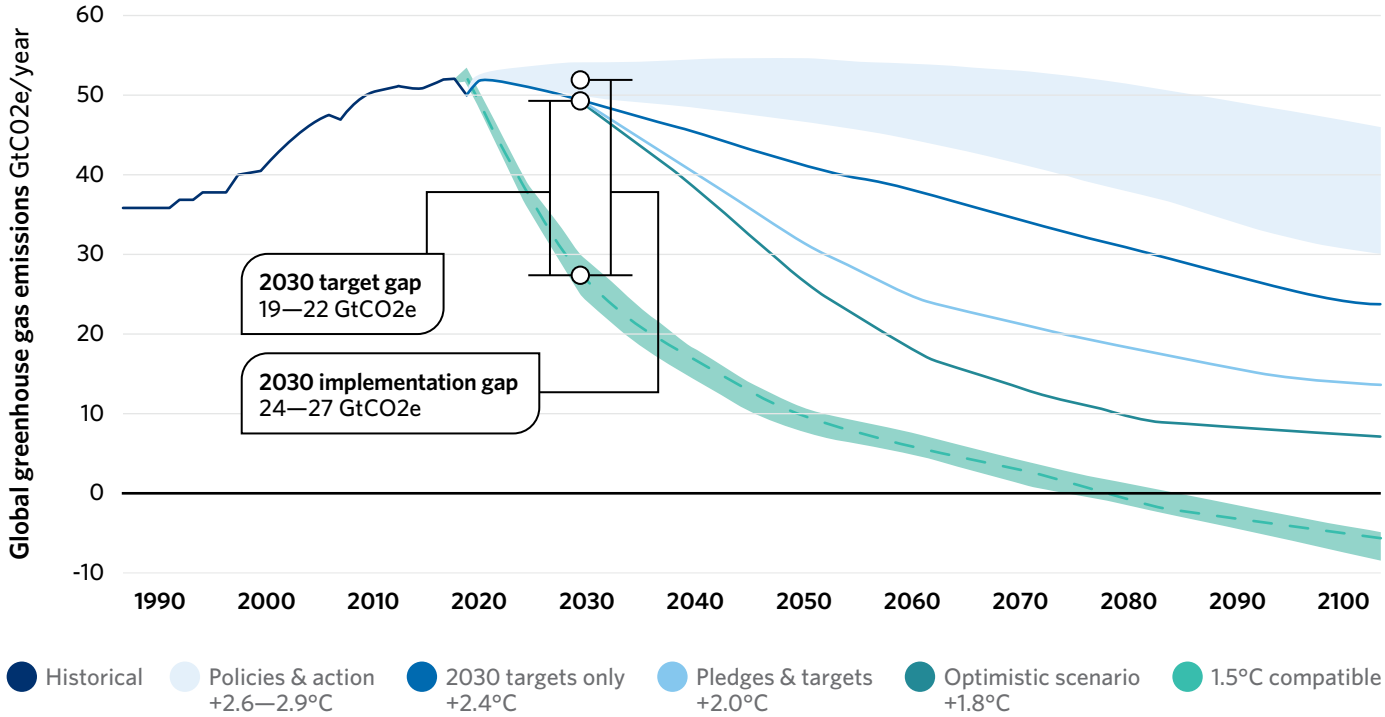
Key assumptions for the scenario include:

- **Rapid technology deployment:** Widespread adoption of clean technologies such as renewable energy, electric vehicles and energy-efficient appliances.
- **Behavioural changes:** Changes in consumer behaviour and business practices towards more sustainable options, including energy conservation and reduced carbon footprints.
- **Policy and regulation:** Implementation of stringent climate policies and regulations, including carbon pricing, subsidies for green technologies and emission reduction targets.
- **Global cooperation:** Enhanced international cooperation and commitment to climate goals, with countries aligning their policies and actions to achieve net-zero emissions.
- **Energy transition:** A significant shift from fossil fuels to renewable energy sources, with renewable energy accounting for a large majority of energy supply by 2050.
- **Investment levels:** Increased investment in clean energy infrastructure and research and development to drive innovation and scale up new technologies.

Inevitably, the actual outcome over the longer term will sit between different scenarios. We continue to monitor climate research and practice and to evolve our approach to scenario analysis.

2100 WARMING PROJECTIONS

Emissions and expected warming based on pledges and current policies.



Source: Climate Action Tracker

Scenario analysis

Analysing climate risks and opportunities involves assessing the impact of various climate scenarios on industries and regions, while incorporating broader factors such as technological advances, policy changes, and geopolitics.

Developing a comprehensive understanding of potential outcomes requires both qualitative and quantitative analysis. Both types of analysis can guide company engagement, the setting of specific decarbonisation expectations for companies and sectors and the evaluation of how well companies are meeting assumptions in net-zero scenarios.

SCENARIO EXAMPLES
Qualitative analysis
Engagement with companies on impacts from the Safeguard Mechanism to understand current and future action plans in a changing regulatory environment.
Comparison of renewable energy markets globally to understand if roll out is meeting assumptions in net-zero emissions scenarios and seek investment opportunities.
Detailed review of Sustainable Aviation Fuel pathways in Australia to understand positioning of airports in responding to demand.
Analysis of global election cycles to understand how changing geopolitics may direct policy and regulation ambition and global co-operation.
Quantitative analysis
Shadow Carbon Price (2022 and 2023): Analysed future carbon costs, finding few companies at high risk due to existing valuations.
Physical Risk Analysis (2022): Assessed physical risks, emphasizing the need for accurate climate data and sector-specific risk management.
ASX200 Targets (2023): Reviewed company targets against a 1.5°C scenario to assess and discuss decarbonisation progress.
Fossil Fuel Look-through revenue and Carbon Footprinting analysis (since 2019): Provides metrics against which we can assess exposure to transition risk.

Transition risk

Low emissions scenarios

RISK

Disruption from adjusting to a low emissions economy.

OPPORTUNITY

Contributing to decarbonisation.

Physical risk

Higher emissions scenarios

RISK

Damage to property or assets from extreme weather events.

OPPORTUNITY

Modifying in response to increased physical risk.

When assessing climate risk across our investments portfolio, we consider both physical and transition risks and opportunities.

Higher emission scenarios result in a higher projected future global temperature. We look at high emissions scenarios for physical risks.

Low emissions scenarios, like the IEA Net Zero Emissions scenario, result in a lower projected future global temperature but require a much faster change to economy and industry. We look at rapid decarbonisation (tracking towards net zero 2050) for transition risks.

The timing of potential risks should be considered. An abrupt and disorderly transition to 1.5°C has the potential to expose financial portfolios to significant transition risk. This can include negative market repricing, confidence shocks to the financial system, and economic and social impacts from a disorderly transition to net zero as a once-off structural adjustment occurs.

Long-term risks may arise if high warming outcomes occur and acute and chronic physical risks negatively impact the economy, society and the environment. Physical risks can increase transition risk until sufficient decarbonisation has occurred to mitigate climate change.

Image: Stock image of a coal fired power plant, shown as an example of a stranded asset.

Transition risks

The decarbonisation of our portfolios will be based on the decarbonisation of the assets and companies we own. We use a range of metrics to understand progress and residual risk. These include:

- forward looking metrics based on our assessment of net-zero commitments
- stress test metrics that evaluate possible future liabilities through shadow carbon pricing
- look-through fossil fuel exposure metrics to quantify stranded asset risk.

NET-ZERO COMMITMENTS IN OUR PORTFOLIO

We monitor the decarbonisation strategies of assets in our investment portfolio to better understand our exposure to transition risk. Companies with decarbonisation targets supported by clear action plans give us confidence that they are managing their risks and are ready to take advantage of the opportunities that the transition presents.

We review data and analyse 76% of the Fund to understand look-through exposure which gives us a representative view of our transition risk across the Fund. Across the proportion of the Fund that we analysed:[9]

- 87% of investments are covered by either net-zero targets, science-based targets, or targets to reduce emissions by greater than 90%
- a further 5% of investments have some targets to reduce a material component of their emissions
- 8% have no target or no information available.

COMPANY AMBITION (FOR THE PROPORTION OF THE FUND THAT WE ANALYSED)	
Net-zero / science-based targets	87%
Sets targets / some efforts	5%
No efforts / evidence	8%

STRANDED ASSET RISK

Decarbonisation will lead to a change in the energy mix, which will challenge some businesses and put them at risk of being stranded assets. The greatest impact will be in sectors exposed to fossil fuels. As part of our portfolio risk management, we monitor these exposures.

[9] Look-through value refers to the proportion of the fund (by dollar value) of investments in companies with targets (not the number of companies). Liquidity items (e.g. cash holdings, operational cash and currency hedging items) and financial instruments (such as futures and municipal debt) are not analysed. Look-through of derivatives over a broad-based index (e.g., ASX 200) are not considered however, look-through of derivatives over a sector specific selection of companies may be included if considered relevant. Data sourced from MSCI with data quality review completed on material holdings.

FOSSIL FUEL LOOK-THROUGH EXPOSURE

We analyse our portfolio contribution to climate change, focusing on companies producing fossil fuels as well as companies that report revenue from fossil fuels—for example, utilities, pipelines, extraction and refining.

We report this way because it gives a more thorough representation of our exposure to fossil fuels and our overall contribution to climate change risks. It also enables a better understanding of our exposure to transition risk.

We calculate the fossil fuel look-through exposure of our portfolio by:[10]

- **Identifying revenue sources**: Determine the percentage of reported revenue each company derives from fossil fuel activities including extraction, production, pipeline transport, refining and other material services to the industry.
- **Reviewing data**: We use a combination of externally provided and directly sourced revenue data to complete the analysis.
- **Applying percentages**: Apply the fossil fuel reported revenue percentage to each holding to determine our look-through exposure to fossil fuel revenues.
- **Aggregating holdings**: Aggregate all holdings to calculate the total dollar value of fossil fuel look-through exposure across the Fund.
- **Expressing as percentage**: Express this total exposure as a percentage of the total Fund.

The following tables set out our fossil fuel look-through exposure by fuel type, activity, and largest holdings.

FOSSIL FUEL EXPOSURE BY FUEL TYPE AS AT JUNE 2024

TOTAL FUND EXPOSURE BY FUEL	EXPOSURE (%)
Fossil fuel revenues	***2.38***
Thermal coal revenues	***0.10***
Oil and gas revenues	***1.99***
Oil and gas pipelines	0.87
Oil and gas extraction	0.53
Refining/transformation	0.59
Fossil fuel electricity generation	***0.29***

FOSSIL FUEL EXPOSURE SUMMARY AS AT 30 JUNE 2024

COMPANY	EXPOSURE (%)[11]	INDUSTRY
APA Group	0.52	Gas pipelines
IFM International Infrastructure Wholesale Fund	0.12	Electricity generation
Santos Limited	0.09	Oil and gas extraction and production
National Grid Plc	0.09	Electric utility
Energy Infrastructure Trust	0.08	Electricity generation
BHP Group Limited	0.07	Diversified mining
Exxon Mobil Corporation	0.05	Oil and gas refining and distribution
Ampol Limited	0.05	Oil and gas refining and distribution
Pembina Pipeline Corporation	0.05	Gas pipelines
ConocoPhillips	0.04	Oil and gas extraction and production
Remainder	1.23	-

At 30 June 2024, 2.38%[12] of the Fund had exposure to fossil fuels (based on a look-through analysis) a slight increase compared 30 June 2023. During the year, Exxon Mobil and ConocoPhillips entered our top ten fossil fuel exposures. Most of the exposures outside the top ten arise from a derivatives position employed to mitigate the risk of rising energy prices. The derivatives involve various swaps in which UniSuper receives the total return of a basket of energy companies. While UniSuper does not directly own shares in the underlying companies, in the interests of transparency, we have included the exposure on a look-through basis.

The nature of our look-through fossil fuel exposures remains broadly consistent with 2023, with gas pipelines representing our largest exposure. Our thermal coal exposure has reduced in line with thermal coal prices falling. Offsetting these declines is the increase in oil and gas extraction exposure driven by increased holdings in global energy companies and the energy swaps.

We will maintain flexibility in our portfolios to continue supporting the most promising strategies and technologies in line with our best financial interest duty and climate commitments.

[10] See pages 36 and 45 for detailed information on the methodology used and page 61 for the applicable limitations.

[11] Figures may not add to the total fossil fuel revenues exposure due to rounding.

[12] We engaged an external assurance organisation, EY, to provide UniSuper with limited assurance in relation fossil fuel look through revenue. See pages 68 and 69 for further information.

Image: Stock image of flooded land.

Physical risks

Physical risks from climate change can be:

- **acute** risks that are event driven such as heat waves, bushfires and floods
- **chronic** risks which are longer-term shifts resulting from changes in climate patterns such as seasonal rainfall and sea level rise.

These factors can result in significant financial implications, including direct damage to assets, increased insurance claims, and business and supply chain disruptions. Moreover, these system-wide impacts can cascade across the economy, potentially affecting productivity, business continuity, resource availability, insurance costs, and overall health and wellbeing if not adequately addressed.

The systemic risk to our portfolio underscores the importance of our active engagement program in two ways:

- By engaging with companies to reduce emissions now, we can mitigate the likelihood of encountering severe warming scenarios in the future.
- By prioritising engagement on physical risk with companies in higher risk sectors like infrastructure (e.g., airports) and materials (e.g., timber and mining), we can focus on assessing each company's risk profile and understand how the company is developing adaptation plans to improve resilience.

> "Where industries can achieve net zero earlier, we expect them to do so, and all companies should be setting interim targets with climate management action plans to achieve them."

Physical risk, natural capital and UniSuper's timber assets

Climate events can pose significant physical risks to human societies and ecosystems. Sectors that depend directly on natural resources are particularly sensitive to the impacts of climate change due to their reliance on the natural environment.

Sustainable timber assets, like Forico and Hancock Victorian Plantations (HVP), support the global transition towards decarbonisation by absorbing carbon and providing renewable materials that reduce reliance on carbon-intensive resources. As these businesses rely on natural capital as their primary inventory, they face various climate-related dependencies and risks.

IMPORTANCE OF MANAGING PHYSICAL RISKS

Forico and HVP's value is derived from their natural capital timber resources. Physical climate impacts pose a material business risk due to the effects of extreme weather events and the interconnected effects on nature and biodiversity. To ensure long-term value, it is crucial for these companies to manage their operational footprint, adapt their strategies, and enhance resilience to changing climate patterns. These risks include acute, event-driven impacts like wildfires and flooding, as well as long-term or chronic climate-related effects that can affect timber physiology, quality, and yield such as heatwaves and drought.

UniSuper engages with its investee companies and co-investors to manage these assets.

ACTIVITIES ACROSS OUR TIMBER ASSETS TO IMPROVE RESILIENCE

Precision forestry

Forico has been exploring the use of controlled release fertiliser (CRF) regimes, which use fertiliser pellets buried in soil adjacent to seedlings at the time of planting. These release nutrition directly to the root zone over a period of 12 to 18 months, encouraging early growth while avoiding any surface spread and leaching of fertilisers due to rainfall and runoff.

Future fibre and eFuels facility

Forico has entered into an agreement with HIF Global, the world's leading eFuels company, to support the development of Australia's first eFuels production facility in Tasmania. This facility is expected to produce up to 100 million litres of eGasoline by 2028 and recycle around 250,000 tonnes of carbon dioxide per year from plantation biomass, equivalent to decarbonising 60,000 vehicles every year.

Genetics and site establishment

To improve climate resilience, HVP focuses on genetics and site establishment to combat adverse conditions, ensuring a healthy plantation estate for carbon sequestration and resource productivity.

Fire management

Uncontrolled bushfires are a significant risk to HVP's long-term plantation assets, natural capital, and health and safety. This risk is addressed through the fire management cycle of prevention, preparedness, response and recovery.

Image: Forico, a sustainable Tasmanian timber plantation estate. | Source: New Forests Group

Estimating our carbon footprint

One of the ways we track our progress towards net zero 2050 is by measuring and monitoring the carbon intensity of our portfolio ('financed emissions'). Given the range of investments we hold, the transition of our portfolio, similar to the experience of the global and Australian economies, will not be linear.

Financed emissions are the absolute emissions investors finance through loans and direct investments (i.e. the operational emissions of investee companies, Scope 1 and 2 emissions) — these are UniSuper's Scope 3 financed emissions. We have not included the Scope 3 emissions of our investments in our calculation because of challenges in calculating and estimating Scope 3 emissions; including these may also result in double counting when aggregating.

This year we have increased the coverage of our portfolio carbon footprint with the addition of some direct property and some direct infrastructure assets (subject to data availability) This information is usually not available in public reporting and not provided by our external data providers. To calculate financed emissions for these assets, we directly contacted each company to source carbon emissions and financial data.

Our carbon footprint is reported in units of tonnes of CO_2 equivalent per $1 million invested per annum. Last year, our portfolio had a carbon intensity of 33.1t p.a. CO_2e per $1 million invested, with 63% coverage. This year, the intensity dropped to 26.4t p.a. CO_2e per $1m, with 71% coverage. The drop in emissions intensity was primarily driven by increased coverage of low-emitting property assets, relative outperformance of low-emitting technology stocks, and the relative underperformance of heavy-emitting sectors.

Although the key driver of emissions reduction was due to financial attributes, company emissions did reduce and in particular, emissions from Australian companies reduced more than global companies. This is where we focus our engagement and demonstrates the importance of focusing on real world emissions reduction.

See page 43 for more information on our approach and pages 68 and 69 for the assurance on our carbon intensity metrics.

Carbon intensity of UniSuper's Covered Portfolio

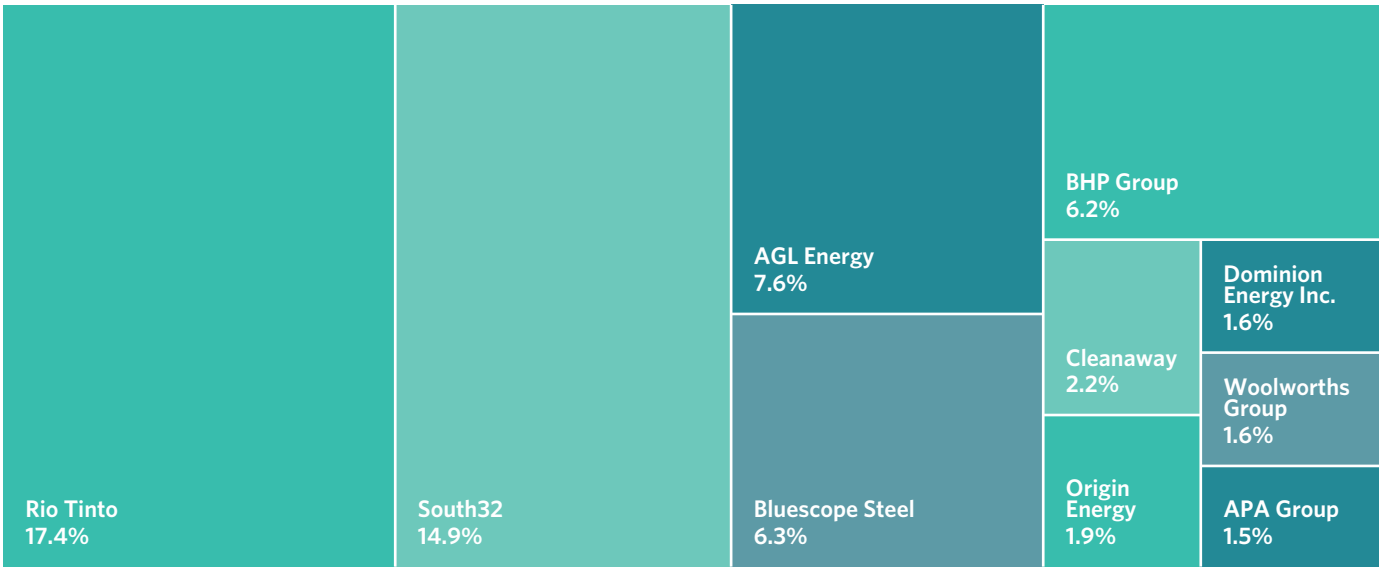
CARBON EMISSIONS PER **$1 MILLION** INVESTED **26.4t** P.A. CO_2E

The Covered Portfolio represents 71% of the Fund. This includes the reported and estimated Scope 1 and 2 emissions for the listed equity, corporate bonds and directly held infrastructure and property components of our funds where all relevant data is available. Page 43 explains the methodology.

By comparison, the ASX300 has a carbon intensity of 67t p.a. CO_2 per $1m, due to the high concentration of resources companies. The MSCI World index has a much lower carbon intensity (compared to the ASX300) of 25t p.a. CO_2 per $1m[13] as it is highly diversified with a mix of high and low carbon companies.

[13] For emissions intensity of benchmarks, Scope 1 and 2 company level emissions data was provided by S&P Trucost using the most recently data available as at 30 June 2024. Benchmark weighting data is sourced from Eikon as at 30 June 2024. Index weights were rebased to exclude companies which do not report carbon emissions.

TOP 10 CONTRIBUTORS TO CARBON INTENSITY[14]



The top five companies contributing over 50% of the carbon emissions are Rio Tinto, South32, AGL Energy, BHP Group and BlueScope Steel. Four of these companies are involved in diversified mining and heavy industry and provide essential minerals and metals required to meet the future needs of a low carbon economy. Importantly they have set interim and long-term decarbonisation targets, including action plans to achieve them.

It is worth observing that among the top ten contributors to our portfolio carbon intensity are relatively small holdings in high-emitting companies like AGL, BlueScope and Origin Energy, none of which are in our Largest 50 Australian investments.

We recognise that these companies have significant challenges for decarbonising this decade, with many of the opportunities reliant on emerging technology, improving economics and grid-scale decarbonisation. Nevertheless, we are comfortable with their ongoing inclusion in the portfolio and view them as critical enablers for a successful transition to a low carbon economy.

Evolving our approach to emissions reporting, UniSuper relies on the emissions data disclosed by others, which may not always be available or complete. Through our deep dive into carbon data, we identified several examples where inconsistent reporting and estimation methodologies could have a material impact on carbon footprint calculations.

Accurate reporting and disclosure of emissions is a key area of our engagement. We aim to understand the tools, assumptions and limitations in calculating emissions and encourage companies to report accurate, complete and standardised emissions data.

Methodologies to calculate carbon intensity continue to evolve. Over the past 12 months, there has been increased focus on disclosure of emissions data and the methodologies used to estimate financed emissions.

We have reviewed our methodology for calculating the carbon footprint of our portfolios, looking for opportunities to better align with industry guidance like PCAF. As part of this process, we completed a deep dive into the sourcing and estimation methodologies from our data providers. This has enabled us to refine our calculation tools.

Given the nascent and evolutionary nature of the emissions reporting framework, changes to methodology and standards can be expected over time. We will continue to evolve for example, by including, adding or changing data as improved disclosure becomes available. We will note any future changes where relevant.

[14] The carbon emissions intensity of the UniSuper portfolio considers both a company's emissions and our investment size, meaning a company like AGL can have a high carbon intensity per million dollars invested even though it is a relatively small holding in the Fund.

Data summary of our investment options

In this section we provide an overview of each of our investment options. This includes the climate risk exposure, carbon intensity, emissions data coverage and companies that have set emissions reduction targets.

Carbon footprint

Below we outline the approach that we've taken to calculate the carbon intensity of our investment options.

SCOPE

The asset classes currently included when calculating the carbon intensity of the option are the listed equity and corporate bonds (excluding green bonds), direct infrastructure and direct property components of our investment options.[15] The extent of coverage of these asset classes is dependent on data availability. Over time we will seek to expand the coverage to include other asset classes as and when data and methodologies become more reliable.

Not all companies have carbon data available. For this reason, we report emissions intensity for a 'Covered Portfolio' within each investment option and disclose the level of coverage as a proportion of market value of the investment option. The Covered Portfolio includes the listed equity, corporate bonds, direct infrastructure and direct property components of our investment options that have sufficient financial and emissions information available to complete the calculations.

METHODOLOGY

The equation below shows how we determined the financed emissions for the Covered Portfolio. Our approach to financed emissions is guided by PCAF.[16] An investment option's estimated carbon footprint is reported in units of tonnes of CO_2 equivalent per $1,000,000 invested. Financial data is sourced from a variety of sources.[17]

$$\text{CARBON FOOTPRINT} = \Sigma \text{ UNISUPER OWNERSHIP SHARE} \times \text{COMPANY EMISSIONS}$$

$$\text{WHERE UNISUPER OWNERSHIP SHARE} = \frac{\text{OUR HOLDING IN THE COMPANY (EQUITY AND DEBT)}}{\text{TOTAL EQUITY + DEBT}}$$

[15] Other asset classes such as unlisted funds, cash, private equity, green bonds, sovereign debt, and derivative financial products (e.g., futures, options, swaps) are currently not in scope.

[16] PCAF, *The Global GHG Accounting and Reporting Standard*, December 2022

[17] The financial input data used in our calculations is obtained from the following sources:
- Market value data is sourced from our reported holdings data.
- Total equity and debt data are sourced from multiple third party providers (such as MSCI and Factset) in order to increase data coverage.
- For the purposes of carbon footprinting calculations, debt value includes lease liabilities.

CARBON DATA

For listed equity and corporate bonds, Scope 1 and 2 company level emissions data was provided by S&P Trucost. This data includes a mix of reported and estimated data. S&P Trucost applies an estimation methodology to selected companies within our portfolios where this data is not reported publicly. This methodology uses a number of estimation models. As can be seen in the chart below not all companies report the same way, data providers derive information about carbon emissions from company reported information. The exact estimation model applied depends on the type of company and the extent of that company's historical carbon reporting. A company's carbon emission data can and does vary between different data providers.

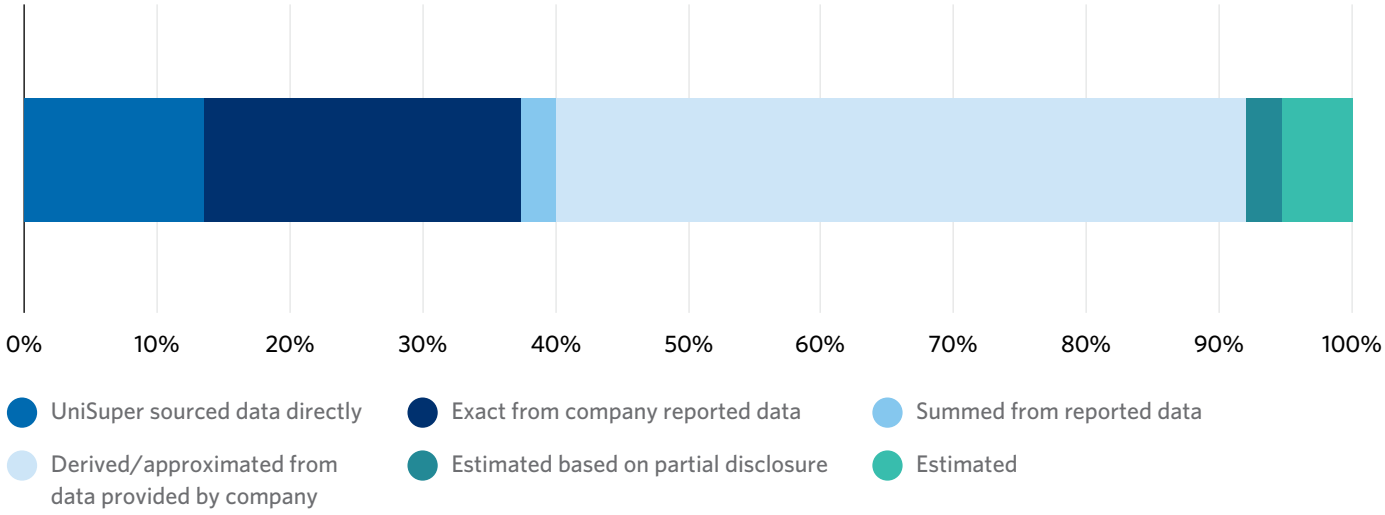
UniSuper may have information on companies that are not covered by S&P Trucost, such as directly held unlisted property, infrastructure or private equity assets. In such instances UniSuper may engage with the company and review sustainability reporting to provide carbon and financial data in order to execute carbon footprinting calculations.

We rely on the emissions data disclosed by these companies which may not always be available, complete or assured. In this report ~13% of the Covered Portfolio is from data directly provided to UniSuper and is linked to unlisted direct property and infrastructure companies.

Wherever possible we've used the most recent carbon and financial data available, sourced as at 30 June 2024. Our ability to use up-to-date carbon data is dependent on the reporting cycles of companies, and the frequency at which S&P Trucost updates its database. Carbon data may include a mix of market-based and location-based emissions calculations (for Scope 2) emissions.

One of the key limitations in calculating a carbon footprint is the completeness of available emissions data. Measuring and estimating emissions accurately can be challenging. See page 61 for more information about data limitations.

SOURCES OF CARBON EMISSIONS DATA



Fossil fuel exposure

We calculate the fossil fuel look-through exposure of our options in the same way we calculate for the whole-of-fund fossil fuel look-through exposure (see page 36).

Once we have identified the holdings in companies deriving reported revenue from fossil fuel activities, we apply the percentage of fossil fuel revenue to the value of the holding in the option. We then sum each holding to determine the dollar value of fossil fuel look-through exposure in the option. Examples of fossil fuel activities include extraction, production, generation, refining and other material services to the industry as reported by MSCI.

Wherever possible we've used the most recent MSCI data available. MSCI fossil fuel revenue largely covers listed companies. For Material Holdings, we review the data and consider if there is more up-to-date information available. Where we do not have data available, zero fossil fuel revenue is applied after undertaking a reasonable level of analysis over the material exposures to the Fund. See page 61 for more information on data limitations.

We source market value data from our reported holdings data as at 30 June 2024. We report fund-wide look-through analysis as a percentage of whole-of-fund value (including liquidity items). The option level fossil fuel exposure is expressed as a percentage of the total value of the option (including liquidity items).

Where we hold equity, corporate debt, cash or other instruments with a company, it has been rolled up to a parent company level. Please refer to the Limitations section on page 61 for further information on mapping.

Look-through exposure to companies held by external managers is included in this analysis.

Fossil fuel exposure in long/short funds is excluded.

Look-through value refers to the proportion by dollar value of investments (not the number of companies).

Look-through derivatives over a sector specific customised basket are considered where we consider fossil fuel exposure to the specific index is material (e.g., an energy index). Look-through of derivatives over a broad-based index (e.g., ASX 200) are not considered.

Sector exposures and company ambition

Sector exposures and company ambition show the look-through exposure. Look-through value refers to the proportion of the option by dollar value of investments (not the number of companies).

Liquidity items (e.g. cash holdings, operational cash and currency hedging items) and financial instruments (such as futures and municipal debt) are not analysed. Look-through derivatives over a sector specific customised basket are considered. Look-through derivatives over a broad-based index (e.g., ASX 200) are not considered. Data is sourced from MSCI with data quality reviews completed on material holdings.

Conservative

Carbon intensity of the covered portfolio

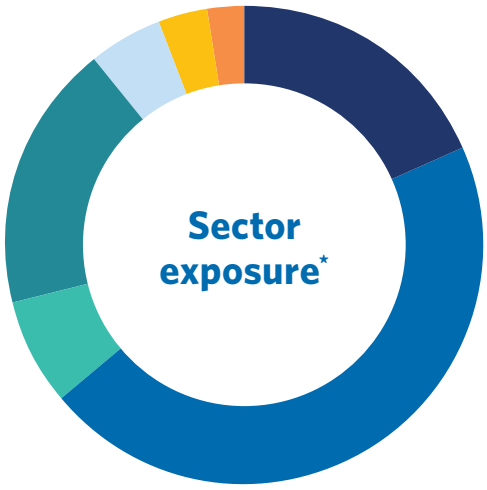
CARBON EMISSIONS PER **$1 MILLION** INVESTED **15.6t** P.A. CO_2E

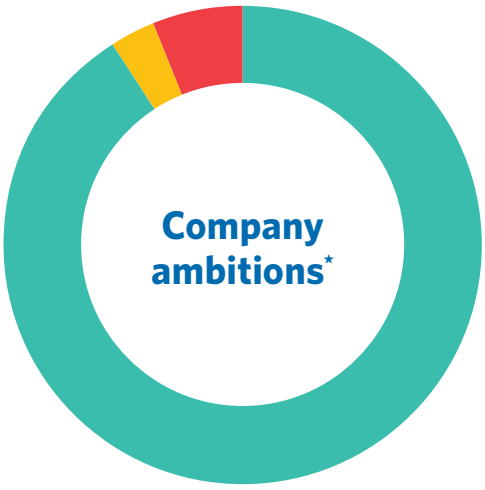
This only includes the reported and estimated scope 1 and 2 emissions. The covered portfolio represents 46% of the option. Page 43 explains the methodology.

Look-through fossil fuel exposure

TOTAL OPTION FOSSIL FUEL EXPOSURE **3.1%**

The largest fossil fuel holding is IFM International Infrastructure Wholesale Fund which contributes 0.8% to the above exposure. Page 45 explains the methodology.





- Industrials and materials
- Consumer
- Financials
- Health care
- IT and communications
- Energy and utilities
- Real estate

- Net-zero/science-based targets
- No efforts/evidence
- Sets targets/some efforts

* This analysis looks at 64% of the option. Page 45 explains the methodology of how this data was calculated.

More information

Visit **Conservative investment option** on our website for more information.

Conservative Balanced

Carbon intensity of the covered portfolio

CARBON EMISSIONS PER **$1 MILLION** INVESTED **22.3t** P.A. CO_2E

This only includes the reported and estimated scope 1 and 2 emissions. The covered portfolio represents 60% of the option. Page 43 explains the methodology.

Look-through fossil fuel exposure

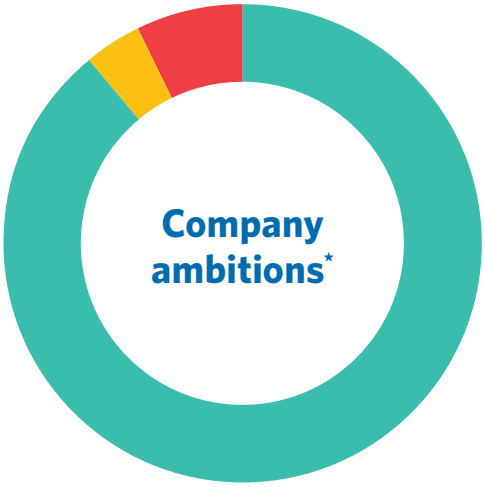
TOTAL OPTION FOSSIL FUEL EXPOSURE **3.0%**

The largest fossil fuel holding is IFM International Infrastructure Wholesale Fund which contributes 0.4% to the above exposure. Page 45 explains the methodology.

Sector exposure*

- Industrials and materials
- Consumer
- Financials
- Health care
- IT and communications
- Energy and utilities
- Real estate

Company ambitions*



- Net-zero/science-based targets
- No efforts/evidence
- Sets targets/some efforts

* This analysis looks at 72% of the option. Page 45 explains the methodology of how this data was calculated.

More information

Visit **Conservative Balanced investment option** on our website for more information.

Balanced

Carbon intensity of the covered portfolio

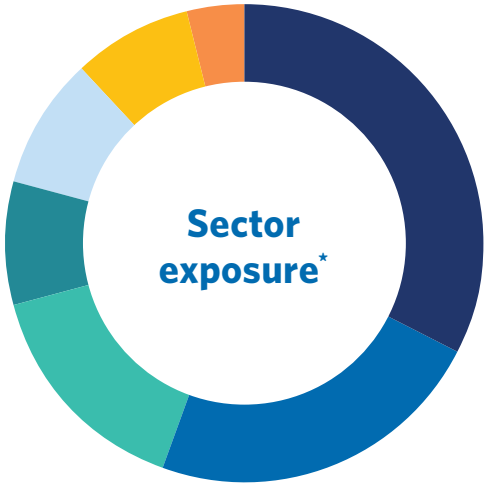
CARBON EMISSIONS PER **$1 MILLION** INVESTED **36.6t** P.A. CO_2E

This only includes the reported and estimated scope 1 and 2 emissions. The covered portfolio represents 67% of the option. Page 43 explains the methodology.

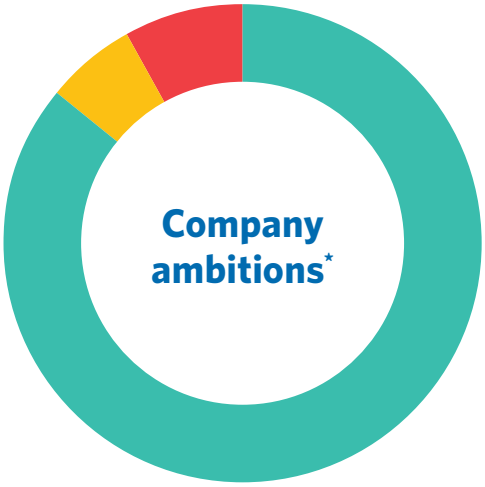
Look-through fossil fuel exposure

TOTAL OPTION FOSSIL FUEL EXPOSURE **2.6%**

The largest fossil fuel holding is IFM International Infrastructure Wholesale Fund which contributes 0.2% to the above exposure. Page 45 explains the methodology.



- Industrials and materials
- Consumer
- Financials
- Health care
- IT and communications
- Energy and utilities
- Real estate



- Net-zero/science-based targets
- No efforts/evidence
- Sets targets/some efforts

* This analysis looks at 73% of the option. Page 45 explains the methodology of how this data was calculated.

More information

Visit **Balanced investment option** on our website for more information.

Sustainable Balanced

Carbon intensity of the covered portfolio

CARBON EMISSIONS PER **$1 MILLION** INVESTED **14.3t** P.A. CO_2E

This only includes the reported and estimated scope 1 and 2 emissions. The covered portfolio represents 73% of the option. Page 43 explains the methodology.

Look-through fossil fuel exposure

This option limits exposure to investments with reported revenue from fossil fuel exploration and production and certain other sectors. More information on our sustainable branded option screens can be found here.

TOTAL OPTION FOSSIL FUEL EXPOSURE **0.03%**

The largest fossil fuel holding is Ecolab Inc. which contributes 0.01% to the above exposure. Page 45 explains the methodology.

Sector exposure*

- Industrials and materials
- Consumer
- Financials
- Health care
- IT and communications
- Energy and utilities
- Real estate

Company ambitions*

- Net-zero/science-based targets
- No efforts/evidence
- Sets targets/some efforts

* This analysis looks at 77% of the option. Page 45 explains the methodology of how this data was calculated.

More information

Visit **Sustainable Balanced investment option** on our website for more information.

Growth

Carbon intensity of the covered portfolio

CARBON EMISSIONS PER **$1 MILLION** INVESTED **36.2t** P.A. CO_2E

This only includes the reported and estimated scope 1 and 2 emissions. The covered portfolio represents 70% of the option. Page 43 explains the methodology.

Look-through fossil fuel exposure

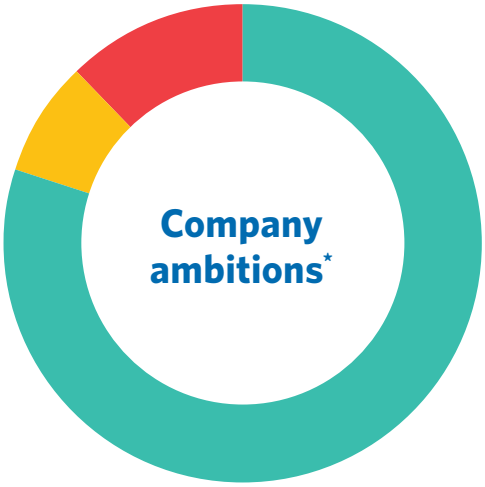
TOTAL OPTION FOSSIL FUEL EXPOSURE **2.8%**

The largest fossil fuel holding is Ampol Limited which contributes 0.1% to the above exposure. Page 45 explains the methodology.

Sector exposure*

- Industrials and materials
- Consumer
- Financials
- Health care
- IT and communications
- Energy and utilities
- Real estate

Company ambitions*



- Net-zero/science-based targets
- No efforts/evidence
- Sets targets/some efforts

* This analysis looks at 75% of the option. Page 45 explains the methodology of how this data was calculated.

More information

Visit **Growth investment option** on our website for more information.

High Growth

Carbon intensity of the covered portfolio

CARBON EMISSIONS PER **$1 MILLION** INVESTED **38.9t** P.A. CO_2E

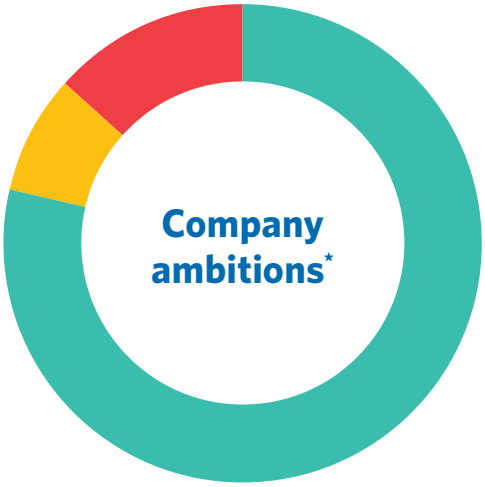
This only includes the reported and estimated scope 1 and 2 emissions. The covered portfolio represents 76% of the option. Page 43 explains the methodology.

Look-through fossil fuel exposure

TOTAL OPTION FOSSIL FUEL EXPOSURE **3.2%**

The largest fossil fuel holding is Ampol Limited which contributes 0.2% to the above exposure. Page 45 explains the methodology.

- Industrials and materials
- Consumer
- Financials
- Health care
- IT and communications
- Energy and utilities
- Real estate



- Net-zero/science-based targets
- No efforts/evidence
- Sets targets/some efforts

* This analysis looks at 78% of the option. Page 45 explains the methodology of how this data was calculated.

More information

Visit **High Growth investment option** on our website for more information.

Sustainable High Growth

Carbon intensity of the covered portfolio

CARBON EMISSIONS PER **$1 MILLION** INVESTED **16.0t** P.A. CO_2E

This only includes the reported and estimated scope 1 and 2 emissions. The covered portfolio represents 88% of the option. Page 43 explains the methodology.

Look-through fossil fuel exposure

This option limits exposure to investments with reported revenue from fossil fuel exploration and production and certain other sectors. More information on our sustainable branded option screens can be found here.

TOTAL OPTION FOSSIL FUEL EXPOSURE **0.04%**

The largest fossil fuel holding is Ecolab Inc. which contributes 0.01% to the above exposure. Page 45 explains the methodology.

- Industrials and materials
- Consumer
- Financials
- Health care
- IT and communications
- Energy and utilities
- Real estate

- Net-zero/science-based targets
- No efforts/evidence
- Sets targets/some efforts

* This analysis looks at 89% of the option. Page 45 explains the methodology of how this data was calculated.

More information

Visit **Sustainable High Growth investment option** on our website for more information.

Listed Property

Carbon intensity of the covered portfolio

CARBON EMISSIONS PER **$1 MILLION** INVESTED **4.7t** P.A. CO_2E

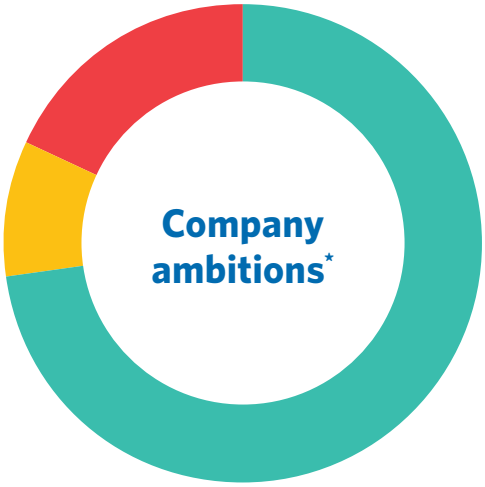
This only includes the reported and estimated scope 1 and 2 emissions. The covered portfolio represents 98% of the option. Page 43 explains the methodology.

Look-through fossil fuel exposure

TOTAL OPTION FOSSIL FUEL EXPOSURE **0%**

No companies with reported revenue from fossil fuels in this option.

- Industrials and materials
- Consumer
- Financials
- Health care
- IT and communications
- Energy and utilities
- Real estate



- Net-zero/science-based targets
- No efforts/evidence
- Sets targets/some efforts

* This analysis looks at 98% of the option. Page 45 explains the methodology of how this data was calculated.

More information

Visit **Listed Property investment option** on our website for more information.

Australian Shares

Carbon intensity of the covered portfolio

CARBON EMISSIONS PER **$1 MILLION** INVESTED **85.7t** P.A. CO_2E

This only includes the reported and estimated scope 1 and 2 emissions. The covered portfolio represents 66% of the option. Page 43 explains the methodology.

Look-through fossil fuel exposure

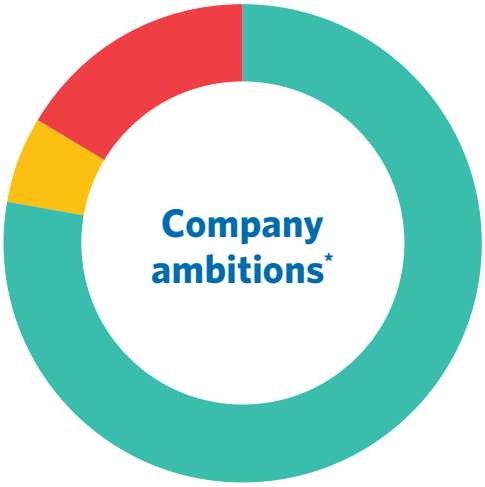
TOTAL OPTION FOSSIL FUEL EXPOSURE **2.7%**

The largest fossil fuel holding is Santos Limited which contributes 0.6% to the above exposure. Page 45 explains the methodology.

Sector exposure*

- Industrials and materials
- Consumer
- Financials
- Health care
- IT and communications
- Energy and utilities
- Real estate

Company ambitions*



- Net-zero/science-based targets
- No efforts/evidence
- Sets targets/some efforts

* This analysis looks at 67% of the option. Page 45 explains the methodology of how this data was calculated.

More information

Visit **Australian Shares investment option** on our website for more information.

International Shares

Carbon intensity of the covered portfolio

CARBON EMISSIONS PER **$1 MILLION** INVESTED **27.4t** P.A. CO_2E

This only includes the reported and estimated scope 1 and 2 emissions. The covered portfolio represents 81% of the option. Page 43 explains the methodology.

Look-through fossil fuel exposure

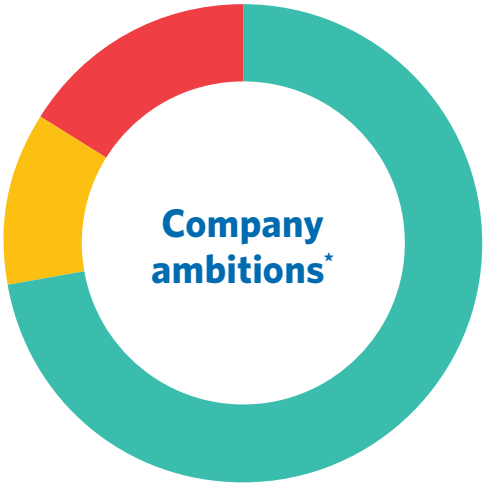
TOTAL OPTION FOSSIL FUEL EXPOSURE **4.7%**

The largest fossil fuel holding is Exxon Mobil Corporation which contributes 0.5% to the above exposure. Page 45 explains the methodology.

Sector exposure*

- Industrials and materials
- Consumer
- Financials
- Health care
- IT and communications
- Energy and utilities
- Real estate

Company ambitions*



- Net-zero/science-based targets
- No efforts/evidence
- Sets targets/some efforts

* This analysis looks at 82% of the option. Page 45 explains the methodology of how this data was calculated.

More information

Visit **International Shares investment option** on our website for more information.

Global Environmental Opportunities

Carbon intensity of the covered portfolio

CARBON EMISSIONS PER **$1 MILLION** INVESTED **28.8t** P.A. CO_2E

This only includes the reported and estimated scope 1 and 2 emissions. The covered portfolio represents 95% of the option. Page 43 explains the methodology.

Look-through fossil fuel exposure

This option limits exposure to investments with reported revenue from fossil fuel exploration and production and certain other sectors. More information on our environmental branded option screens can be found here.

TOTAL OPTION FOSSIL FUEL EXPOSURE **0.01%**

The largest fossil fuel holding is Weyerhaeuser Company which contributes 0.01% to the above exposure. Page 45 explains the methodology.

Sector exposure*

- Industrials and materials
- Consumer
- Financials
- Health care
- IT and communications
- Energy and utilities
- Real estate

Company ambitions*

- Net-zero/science-based targets
- No efforts/evidence
- Sets targets/some efforts

* This analysis looks at 96% of the option. Page 45 explains the methodology of how this data was calculated.

More information

Visit **Global Environmental Opportunities investment option** on our website for more information.

Australian Dividend Income

Carbon intensity of the covered portfolio

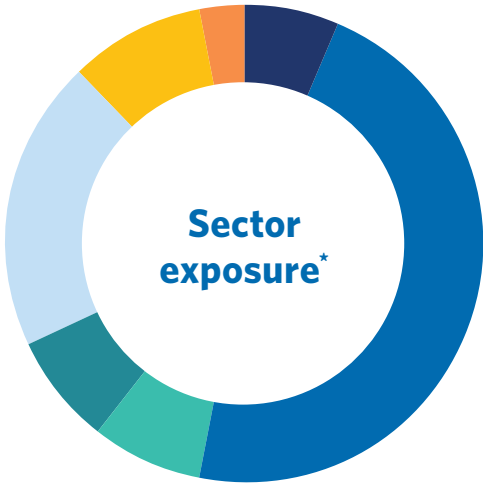
CARBON EMISSIONS PER **$1 MILLION** INVESTED **8.6t** P.A. CO_2E

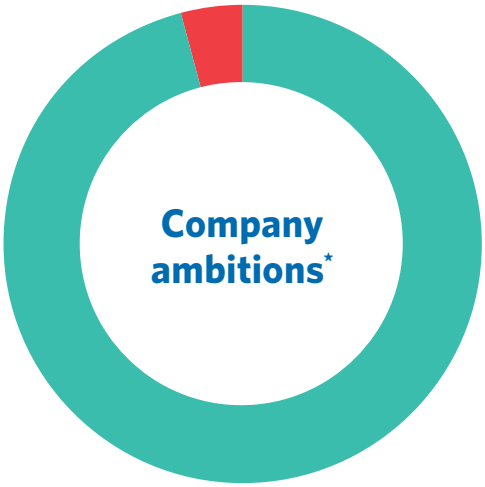
This only includes the reported and estimated scope 1 and 2 emissions. The covered portfolio represents 98% of the option. Page 43 explains the methodology.

Look-through fossil fuel exposure

TOTAL OPTION FOSSIL FUEL EXPOSURE **2.1%**

The largest fossil fuel holding is APA Group which contributes 2.0% to the above exposure. Page 45 explains the methodology.





- Industrials and materials
- Consumer
- Financials
- Health care
- IT and communications
- Energy and utilities
- Real estate

- Net-zero/science-based targets
- No efforts/evidence
- Sets targets/some efforts

* This analysis looks at 98% of the option. Page 45 explains the methodology of how this data was calculated.

More information

Visit **Australian Dividend Income investment option** on our website for more information.

Global Companies in Asia

Carbon intensity of the covered portfolio

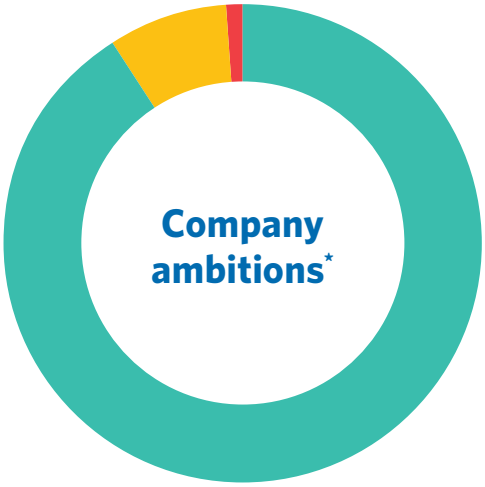
CARBON EMISSIONS PER **$1 MILLION** INVESTED **3.7t** P.A. CO_2E

This only includes the reported and estimated scope 1 and 2 emissions. The covered portfolio represents 92% of the option. Page 43 explains the methodology.

Look-through fossil fuel exposure

TOTAL OPTION FOSSIL FUEL EXPOSURE **0.02%**

The largest fossil fuel holding is Walmart Inc. which contributes 0.02% to the above exposure. Page 45 explains the methodology.



- Industrials and materials
- Consumer
- Financials
- Health care
- IT and communications
- Energy and utilities
- Real estate

- Net-zero/science-based targets
- No efforts/evidence
- Sets targets/some efforts

* This analysis looks at 93% of the option. Page 45 explains the methodology of how this data was calculated.

More information

Visit **Global Companies in Asia investment option** on our website for more information.

Defined Benefit

Carbon intensity of the covered portfolio

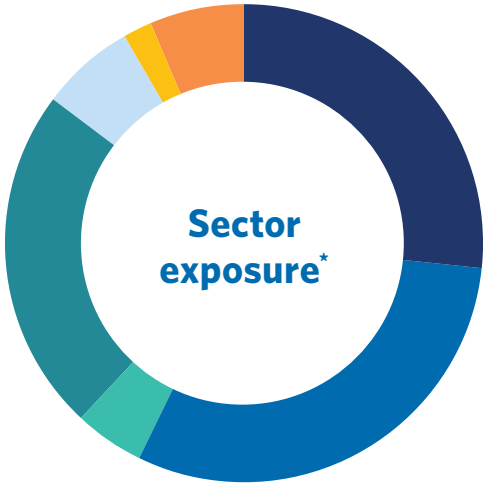
CARBON EMISSIONS PER **$1 MILLION** INVESTED **14.4t** P.A. CO_2E

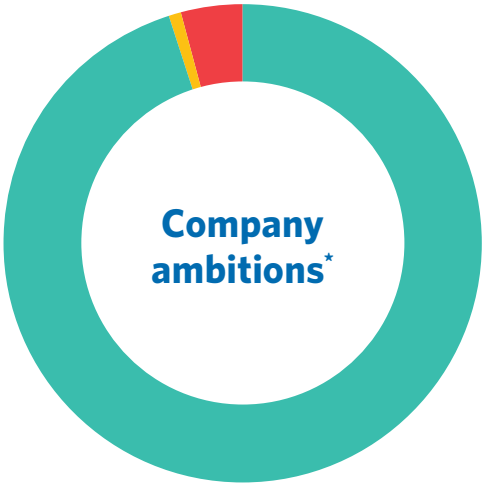
This only includes the reported and estimated scope 1 and 2 emissions. The covered portfolio represents 81% of the option. Page 43 explains the methodology.

Look-through fossil fuel exposure

TOTAL OPTION FOSSIL FUEL EXPOSURE **3.0%**

The largest fossil fuel holding is APA Group which contributes 2.0% to the above exposure. Page 45 explains the methodology.





- Industrials and materials
- Consumer
- Financials
- Health care
- IT and communications
- Energy and utilities
- Real estate

- Net-zero/science-based targets
- No efforts/evidence
- Sets targets/some efforts

* This analysis looks at 88% of the option. Page 45 explains the methodology of how this data was calculated.

Appendices

Limitations

Unless otherwise mentioned, all analysis refers to our holdings as at 30 June 2024.

Unless otherwise mentioned, companies have been assessed based on information available up to 31 July 2024. Any information announced or published after this date was not considered in company assessments.

This report doesn't suggest that any particular view of the future will hold true, and readers may disagree with our view or assessment of risk. Climate risk is one of many risks that any company faces, and companies facing significant climate risks may still be good investments due to other factors such as price, management, mitigation and transformation strategies.

DATA AVAILABILITY AND ACCURACY

Reporting on underlying business units can be inconsistent, even for those companies that do report. While we aim to be as transparent as possible and undertake due diligence on data provided by external data providers, information gaps, timing differences or price volatility sometimes mean data availability is not as precise as we would like.

We review data for Material Holdings. Where we have more accurate, relevant, up to date information or information on companies not covered by third-party data providers (e.g., unlisted assets), we may add to, or override data provided by third parties.

While we continually refine our processes, some of the known limitations of our data coverage are:

- Out of date information—we rely on company reported business unit data, which may be updated infrequently and is collated by third-party data tools at least annually. On occasion, this may mean reported revenue breakdowns are over a year old.
- Revenue breakdowns—where companies don't provide specific revenues associated with reported sectors (for example, the split between thermal and metallurgical coal), we use other information to estimate revenues such as fuel reserve split.
- Estimated data—where detailed breakdowns of company revenue streams are not reported, estimations may be used to calculate business segment revenues (for example, for fossil fuel power generation, thermal coal revenue, oil and gas pipeline revenue). The exact estimation model applied depends on the type of company and the extent of available reported data. A company's business segment revenue can and does vary between different data providers.
- Small or unlisted companies—reporting and coverage by third-party data providers is not comprehensive. While we review our larger holdings (which comprise around 80% of the Fund's investments), we rely on data providers for the majority of our smaller holdings.

PARENT AND SUBSIDIARY ISSUER MAPPING

Many companies have complex group structures with numerous subsidiaries within their corporate group. In order to provide consolidated reporting at the parent company level, we aim to capture and consolidate sustainability related data (such as carbon intensity and fossil fuel exposure) for all companies within a corporate group. This process is referred to as data mapping. We rely on third-party data providers to assist with mapping subsidiary level data to the ultimate parent entity within the corporate group.

There may be gaps in this third-party mapping data and we may not be able to map data from all group companies to the ultimate parent company. Where possible, we supplement third-party mapping data with manual reviews to try and capture a more complete data set for our reporting purposes.

The data mapping process for Fossil Fuel exposure calculations and Carbon Intensity calculations will differ due to the different calculation methodologies adopted. The level of coverage, and methodology used, for Fossil Fuel exposure calculations is disclosed on pages 36 and 45 and the level of coverage, and methodology used, for Carbon Intensity calculations is disclosed on page 43.

LOOK-THROUGH REVENUE ANALYSIS

When assessing our portfolio exposures (and for the purposes of portfolio compliance for our thermal coal exclusion), we supplement internal analysis with third-party data. While we believe at a high level our exposures are portrayed accurately, we recognise that the information is incomplete and uses varying methodologies and assumptions in assessing revenues. In some instances when calculating metrics, we may exclude certain types of instruments. This is disclosed where relevant.

When we refer to reported revenues, this refers to revenues reported by a company, and depending on the approach taken by the relevant companies, these revenues may be reported on either a gross or net basis. Had we chosen to carry out our assessment on an exclusively 'gross' or 'net' basis, the assessment of our exposures may have been different.

INVESTEE COMPANY SCOPE 3 EMISSIONS IN FINANCED EMISSIONS CALCULATIONS

We don't include the Scope 3 emissions and lifecycle emissions of our investments in the calculation of our carbon footprints. Current limitations in the reporting of Scope 3 emissions include:

- Scope 3 emissions are most appropriate for single entities, not portfolios, as there is a high risk of double counting
- very few companies report Scope 3 emissions comprehensively
- reporting of Scope 3 emissions relies on assumptions about activities that are outside the control of the company and may not be disclosed by customers or suppliers. For example, to calculate the Scope 3 emissions associated with iron ore, an assumption needs to be made about the carbon intensity of the blast furnaces that will turn the ore into steel. This assumption could be made in different ways—using global or regional averages or site-specific information (if known).

More information is available in this IGCC note.

THERMAL COAL EXCLUSION

In addition to the above limitations, we may retain an interest in companies that have more than 10% of their reported revenues associated with thermal coal exploration and production but are well progressed in the sale or wind-down of those mines as we consider them to comply with the restriction.

As at 30 June 2024, we did not hold any interests in companies that had more than 10% of their reported revenues from the extraction and production of thermal coal.

Glossary

TERM	DESCRIPTION
Asset manager	Asset managers manage our investment strategies, they include investment professionals from our in-house investment team and selected external investment managers.
Asset class	An asset class is a group of investments that exhibit similar characteristics. Key asset classes in our investment options include cash and fixed instruments, shares, property, infrastructure and private equity.
The Australian Sustainability Reporting Standards (ASRS)	A set of guidelines developed to help organisations disclose climate-related financial information. These standards are based on the International Sustainability Standards Board (ISSB) framework and aim to create a consistent and transparent approach to sustainability reporting in Australia. Key Components of ASRS include: ▪ ASRS 1: is a voluntary standard covering sustainability-related financial disclosures. ▪ ASRS 2: is a mandatory standard covering climate-related financial disclosures.
Carbon dioxide (CO_2)	A naturally occurring gas that is found in Earth's atmosphere. CO_2 produced by burning carbon in organic materials, including fossil fuels, is the main greenhouse gas driving human-induced climate change.
Carbon neutral	This means achieving a balance between the CO_2 that an organisation emits through its operations over a specified period, and the CO_2 that is removed or avoided through carbon offsets. For the purposes of this report, carbon neutrality refers to operational emissions (not supply chain emissions). Carbon neutrality is often achieved by a combination of reducing CO_2 emissions (through energy switching and energy efficiency measures) and purchasing carbon offsets equal to an organisation's residual emissions. Companies can often use this interchangeably with 'net-zero carbon'.
Carbon offsets	Certified credits, generated per tonne of CO_2-e, that can be purchased to balance an organisation's operational emissions. Offsets may be derived from nature-based (e.g., reforestation) or technological (e.g., carbon capture and storage) removals. They may also be generated by 'avoided emissions' such as forest conservation and new renewable energy projects.
Carbon footprint	The carbon footprint is the amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organisation, or community. We calculate the carbon footprint of our investment options using the methodology outlined on page 43.

TERM	DESCRIPTION
CO_2 equivalent (CO2-e)	A means of comparing the global warming potential of greenhouse gases. CO_2 is the reference gas that other greenhouse gas emissions are measured against when calculating their global warming potential. For example, methane has a global warming potential of 28 meaning the CO_2 equivalent of 1 tonne of methane is 28 tonnes of CO_2.
Climateworks Centre 'All in' 1.5°C pathway	This assessment is based on one specific analytical output developed by Climateworks Centre in 2020: Decarbonisation Futures' '1.5C All-in' scenario which illustrates one possible pathway for Australia to reach net-zero emissions limiting global warming to 1.5°C. In instances where electricity generation is concerned, the Australian Energy Market Operator's 2022 ISP Hydrogen Superpower scenario is used.
Covered Portfolio	A portfolio within an investment option consisting of reported and estimated Scope 1 and 2 emissions for the listed equity, corporate bonds and directly held infrastructure and property components of our funds which report carbon emissions at 30 June 2024. See pages 40 and 43 for detailed analysis.
Decarbonisation	The reduction of carbon dioxide emissions through the use of low carbon power sources, achieving a lower output of greenhouse gasses into the atmosphere. This can include lowering the amount of greenhouse gas emissions produced by the burning of fossil fuels or decreasing CO_2 output per unit of electricity generated.
Double counting	Occurs when (GHG) emissions occurs when emissions—whether generated, avoided, or removed —are counted more than once. This can happen in a GHG inventory or when tracking progress toward mitigation or financial pledges aimed at combating climate change. For financed emissions, double counting may occur during the aggregation of 'investee company Scope 3 emissions' with UniSuper's 'financed Scope 3 emissions.' UniSuper's Scope 3 emissions include the investee company's Scope 1 and 2 emissions. Double counting arises because one company's Scope 3 emissions can be another company's Scope 1 or 2 emissions within the same value chain. Double counting can also occur between financial institutions in co-financing the same entity or activity, between transactions within the same financial institutions, across different asset classes and within the same asset class. PCAF recognises that double counting of GHG emissions cannot be avoided completely; however, it should be minimized.
Exploration and production	Companies involved in the extraction (by mining or otherwise) of minerals and fuels from the earth, and their refining or processing for use.
Exposure at default (EAD)	A financial term used to describe the total value a bank or financial institution is exposed to when a borrower defaults on a loan. It represents the amount of money that is at risk of not being repaid if the borrower fails to meet their debt obligations. Companies can calculate this differently and there are differences between how ANZ and NAB calculate this.
Financed emissions	Scope 3 emissions attributed to a financial institution's lending and investing activities. For UniSuper this includes investee company Scope 1 and 2 emissions but not investee company Scope 3 emissions due to the risk of double counting.
Fossil fuels	A fuel such as oil, gas or coal that is formed in the earth from natural remains. For the purposes of this report, when referring to fossil fuels, we mean oil, gas and thermal coal. When referring to our fossil fuel exposures, we mean companies that have revenues associated with the exploration, refining, processing, extraction, transportation of, or electricity generation from, oil, gas and thermal coal.
Fossil fuel look-through analysis	Reporting on the relevant underlying reported revenues of our investments to understand our economic exposure to a particular characteristic. This is calculated by: • identifying the holdings in companies deriving revenue from fossil fuel extraction, production, generation, transmission, transportation, and refining • determining the percentage of revenue of each company from fossil fuels • applying that percentage to each holding to determine its look-through exposure • summing each holding to determine the dollar value of fossil fuel look-through exposure across the fund • expressing that exposure as a percentage of the total fund. This calculation excludes long/short funds.

TERM	DESCRIPTION
Fund	When we reference the whole of Fund value this covers all assets that UniSuper holds, including financial instruments such as liquidity items. In some instances when calculating metrics, we may exclude certain types of instruments. This is disclosed where relevant.
Greenhouse gas effect	The increased presence of heat-trapping gases in the atmosphere that warm the planet and disrupts the Earth's stable climate system.
Greenhouse gas emissions (GHG emissions)	Atmospheric gases and aerosols, both natural and produced through industrial activities that contribute to the greenhouse gas effect. This includes CO_2, nitrous oxide (N_2O), methane (CH_4) and hydrofluorocarbons (HFCs).
Green bond	A fixed interest investment that aims to contribute to positive environmental and social outcomes. For example, a bond issued to fund green projects (such as renewables or energy efficiency). The term 'green bond' is sometimes used interchangeably with climate bonds or sustainable bonds and usually has a use of proceeds requirement that restricts the use of those funds to identified green projects
Green building	The Green Building Council Australia defines a green building as a building that: • has design, construction and operational practices that significantly reduce or eliminate its negative impact on the environment and its occupants. • promotes efficiency – it can reduce construction and ongoing performance costs significantly • uses resources effectively and creates healthier environments for people to live and work in.
Green themes	Potential areas for investment that contribute to decarbonisation, such as wind power, solar power, hydropower, and bioenergy. In this definition we also include sectors that produce critical minerals and other products needed to support the transition to a decarbonised economy.
International Sustainability Standards Board (ISSB)	An international body focused on developing sustainability disclosure standards to meet the needs of investors and financial markets.
Just and orderly transition	Refers to a deliberate and well-managed process of shifting from a high-carbon, fossil fuel dependent economic system to one that is sustainable, low carbon and socially equitable.
Look-through	Refers to the aggregated or calculated value of assets or investments held by one entity, that is derived from the underlying values of the assets held within it. For example, it can refer to the proportion of the Fund (by dollar value) of investments in companies (not the number of companies). It can also refer to look-through to the underlying companies within a derivative product e.g., the underlying companies in ASX200 futures. This is disclosed where relevant.
Lifecycle emissions	The emissions associated with the production and use of a specific product, from cradle to grave, including emissions from raw materials, manufacture, transport, storage, sale, use and disposal.
Liquidity items	Includes cash holdings, operational cash and currency hedging instruments.
Largest 50 Australian investments	These are our 50 largest Australian investments which include investments in ASX-listed companies and unlisted assets with Australian-based operations.
Metallurgical coal	Metallurgical coal also known as 'coking' coal, is a type of coal that is used in the steelmaking process to produce coke. It is a grade of coal that is essential to steelmaking. With limited options for substituting metallurgical coal out of the steel making process, its demand highly coupled to the demand for steel.
Material Holdings	Material holdings for the purposes of data reviews are defined as our largest 150 holdings and extended to the largest 50 unlisted holdings and largest 10 fossil fuel exposures. Other holdings may be reviewed ad hoc as required (e.g., holdings with overrides from prior years and other unlisted assets with known fossil fuel exposure).

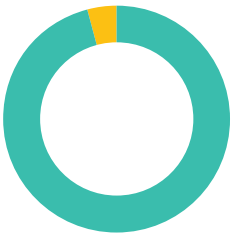
TERM	DESCRIPTION
Nationally Determined Contribution (NDC)	Is a climate action plan that each country submits under the Paris Agreement. These plans outline the efforts a country will take to reduce national greenhouse gas emissions and adapt to the impacts of climate change. The Paris Agreement, adopted in 2015, requires each party to prepare, communicate, and maintain successive NDCs that it intends to achieve. NDCs are updated every five years to reflect increased ambition and progress. The overall goal is to limit global warming to well below 2°C above pre-industrial levels, with efforts to limit it to 1.5°C.
Net-zero emissions	At a societal level, net-zero emissions are achieved when human emissions of greenhouse gases into the atmosphere are balanced by human-managed removals over a specified period. For companies, net-zero commitments require companies to reduce emissions through efficiencies and abatements, with the balance of any 'residual' emissions being offset. It is a common expectation that using carbon offsets to meet climate targets should only occur after companies have made all efforts to prioritise the reduction in their own emissions (*The Oxford Principles for Net Zero Aligned Carbon Offsetting, 2020*). We note companies often use this interchangeably with 'carbon neutral'. This covers CO_2 emissions, unless stated otherwise.
Operational emissions	The greenhouse gas emissions associated with the operations of a company. This includes the emissions generated by the company (Scope 1), and the emissions associated with purchased electricity (Scope 2).
Paris Agreement	Signed in December 2015, the Paris Agreement brings together signatory nations to combat climate change and adapt to its effects. Signatory nations commit to the goal of limiting global warming to well below 2°C (preferably to 1.5°C), compared to pre-industrial levels.
Paris-aligned operational target	We consider a Paris-aligned operational target to be one of the following: • net-zero operational emissions before 2050 • endorsed science-based targets • at least a 45% emissions reduction by 2030.
The Partnership for Carbon Accounting Financials (PCAF)	PCAF is an industry-led initiative. Created in 2015 by Dutch financial institutions (FIs), PCAF extended to North America in 2018 and scaled up globally in 2019. The globalisation of PCAF enables FIs worldwide to consistently measure and disclose the greenhouse gas emissions of their financial activities. PCAF (2022). The Global GHG Accounting and Reporting Standard Part A: Financed Emissions. Second Edition.
Physical risk	Risks associated with the physical impacts of climate change which may disrupt operations or damage assets. 'Acute' physical risks are event-driven risks, such as heatwaves, bushfires, or floods. 'Chronic' physical risks are longer-term shifts, like rising sea levels or lowering seasonal rainfall.
Proxy voting	Refers to a ballot cast by a single person or firm on behalf of a shareholder. Rather than physically attending the shareholder meeting, investors may elect someone else, such as a member of the company's management team, to vote in their place. This person is designated as a proxy and will cast a proxy vote in line with the shareholder's directions.
Reported revenue	Revenue percentage based on companies' reported revenue and business activities, these revenues may be reported on either a gross or a net basis.
Representative Concentration Pathway (RCP)	A greenhouse gas concentration pathway used for climate modelling and research. The pathways describe different climate futures, all of which are considered possible depending on the volume of GHGs emitted in the years to come. For example, RCP 8.5 refers to the concentration of carbon that delivers global warming at an average of 8.5 watts per square meter across the planet. The RCP 8.5 pathway delivers a temperature increase of about 4.3˚C by 2100, relative to pre-industrial temperatures.
Safeguard Mechanism	The Federal Government's policy for reducing emissions at Australia's largest industrial facilities. It sets legislated limits on greenhouse gas emissions which will decline on a trajectory consistent with achieving Australia's emission reduction targets of 43% below 2005 levels by 2030 and net zero by 2050.

TERM	DESCRIPTION
Science-based Targets Initiative (SBTi)	The SBTi methodology is used globally and offers authoritative guidance on generally required decarbonisation targets, as well as specific sector guidance. Given it is global in nature and broad based (even where there is sector guidance available), Australian companies may encounter nuances that create barriers to implementation.
Shadow price on carbon	A price on carbon allocates a cost to greenhouse gas emissions. In the absence of a legislated price on carbon, an organisation may adopt a shadow price on carbon to implicitly price the risk of carbon-intensity into their financial investment decisions.
Scope 1, 2 and 3 emissions	To assist with calculations, greenhouse gas reporting guidance divides emissions into 3 Scopes: • Scope 1: direct emissions, for example, emissions produced onsite • Scope 2: indirect emissions, such as emissions associated with electricity purchased by the company • Scope 3: all other emissions associated with the company's supply chain (upstream) or in the use of its products (downstream). Scope 1 and 2 emissions represent 'operational emissions'. Scope 3 emissions represent 'supply chain emissions' and, for financial services providers, also cover their 'financed emissions' which include the greenhouse gas emissions linked to the provider's investment and lending activities. See 'operational emissions' and 'financed emissions'.
Stranded asset	An asset that has lost value prior to the end of its anticipated useful life due to economic, physical or legislative changes. For example, a thermal coal mine could become stranded as the market transitions from coal power plants to alternative means of electricity generation.
Total committed exposure (TCE)	This metric helps financial institutions assess their total exposure to a single borrower or group of borrowers and refers to the sum of all amounts that a financial institution has committed to lend or has already lent to a borrower. This generally includes outstanding loans, undrawn commitments, letters of credit and reimbursement obligations. Companies can calculate this differently and there are differences between how CBA and WBC calculate this.
Thermal coal	Can also be known as 'energy' coal and is primarily used for generating electricity and heat. It includes lignite, bituminous, anthracite and steam coal. Thermal coal differs from metallurgical coal.
Thermal coal miner	A company that generates greater than 10% of its reported revenues from thermal coal exploration and production.
Traffic Light report	Our Traffic Light report is a proprietary initiative focusing on our 50 largest Australian holdings. These are both unlisted assets with Australian based operations and ASX-listed companies.
Transition risk	Refers to the disruption to a company when being forced to adjust to a decarbonising economy. For example, the transition could prompt changes in legislation, technology and market conditions which may impact the costs faced by society.
Task Force on Climate-related Financial Disclosures (TCFD)	A task force created by the Financial Stability Board to improve and increase reporting of climate-related financial information (including on greenhouse gas emissions, carbon intensity and climate-related risks). The TCFD recommendations for climate-related disclosures promote informed investment, credit, and insurance underwriting decisions.

UniSuper traffic light assessment methodology

Our assessment of the operational decarbonisation commitments of our Largest 50 Australian investments

NET-ZERO COMMITMENT



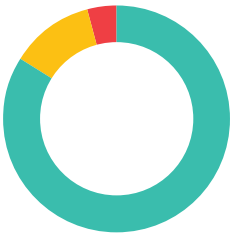
Paris-aligned operational target committing to net zero by 2050.

- Net-zero target by 2050 or earlier.
- Public commitment to set target in the next year.
- No target.

Factors considered:

- Progress of engagement with companies
- Ambition relative to peers and industry expectations
- Science-based assessments and methodologies
- Level of ambition
- Reliance on offsets.

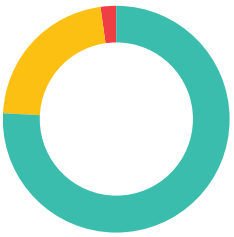
INTERIM TARGETS



Companies should have an interim target which is appropriate, accountable and ambitious. Targets should take into account the company's emissions profile and focus on high emitting parts of the business.

- 2030 target—an ambitious, sector-appropriate target.
- Interim target that addresses the majority of emissions but is not sufficiently ambitious, or a public commitment to set target.
- No interim target.

ACTION PLAN



Companies should understand sector-specific challenges and opportunities. Clear plan to achieve Scope 1 and 2 interim targets. Focus on high emitting and easy-to-abate parts of the supply chain. Understanding reliance on offsets to achieve targets.

Broader targets for:

- renewable energy
- electrification of processes
- energy efficiency opportunities to reduce overall energy needs
- reducing fugitive (especially methane) and other emissions.

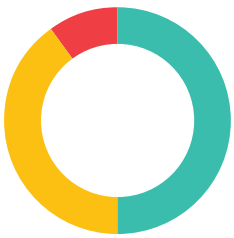
- Strategy has been published which outlines actions to address emission reduction, in alignment with targets.
- Strong actions taken, but no overarching strategy towards targets.
- Minimal action and no clear strategy.

Factors considered:

- Progress of engagement with companies
- Ambition relative to peers and industry expectations
- Science-based assessments and methodologies, scenarios, etc.
- Level of ambition
- Reliance on offsets
- Where applicable, projects to address Scope 1 emissions for companies with exposure to the Safeguard Mechanism.

Our assessment of the Scope 3 activities of our Largest 50 Australian investments

SCOPE 3



- Targets set for material Scope 3 emissions categories. Action plan underway or disclosed to begin addressing Scope 3 emissions reductions.
- Measurement and disclosure of material Scope 3 emissions. Discussion of possible actions underway to begin reducing Scope 3 emissions.
- Some disclosure of Scope 3 emissions but no target or action plan to address. Company only addresses operational Scope 3.

Factors considered:

- What the material emissions were and the ability for the company to reduce these (operational control versus outside of operational control).
- Types of activities and progress reporting we expected from companies was dependent on the level of operational control. We considered activities including partnerships, investment in R&D, engagement with customers, in addition to typical target setting.
- Use of science-based assessments and methodologies, scenarios, etc.
- Level of ambition by the company and relative to peers.

Building a better working world

Independent Limited Assurance Report to the Management and Directors of UniSuper Limited

Our Conclusion:

Ernst & Young ('EY', 'we') were engaged by UniSuper Limited ('UniSuper') to undertake a limited assurance engagement as defined by Australian Auditing Standards, hereafter referred to as a 'review', over the Subject Matter defined below for the year ended 30 June 2024. Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe the Subject Matter has not been prepared, in all material respects, in accordance with the Criteria defined below.

What our review covered

We reviewed the following Subject Matter in UniSuper's Climate risk and our investments Report for the year ended 30 June 2024 (the 'Report'):

Subject Matters	Report page
'Fossil fuel look through exposure' (%), defined as the proportion of UniSuper's $AUM invested in companies deriving revenue from fossil fuel extraction, including production, generation, transmission, transportation, and refining, of the UniSuper Fund	36
UniSuper's financed emissions intensity (tonnes of CO_2e/$m AUM) and the coverage (% of AUM) of the UniSuper Fund	40
Financed emissions intensity (tonnes of CO_2e/$m AUM) of: • S&P ASX300 Index • MSCI World Index	40

Other than as described in the preceding paragraphs, which set out the scope of our engagement, we did not perform assurance procedures on the remaining information included in the Report, and accordingly, we do not express an opinion or conclusion on this information.

Criteria applied by UniSuper

In preparing the Subject Matter's, UniSuper applied the following Criteria:

- UniSuper's self-declared criteria as set out in the Report on pages 36, 40 to 45 and 61 to 66.

Key responsibilities

UniSuper's responsibility

UniSuper's management is responsible for selecting the Criteria, and for presenting the Subject Matters in accordance with that Criteria, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records and making estimates that are relevant to the preparation of the subject matter, such that it is free from material misstatement, whether due to fraud or error.

EY's responsibility and independence

Our responsibility is to express a conclusion on the Subject Matter based on our review.

We have complied with the independence and relevant ethical requirements, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Auditing Standard ASQM 1 *Quality Management for Firms that Perform Audits or Reviews of Financial Reports and Other Financial Information, or Other Assurance or Related Services Engagements*, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our approach to conducting the review

We conducted this review in accordance with the Australian Auditing and Assurance Standards Board's *Australian Standard on Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* ('ASAE3000') and *Assurance Engagements on Greenhouse Gas Statements* ('ASAE 3410') and the terms of reference for this engagement as agreed with UniSuper on 31 July 2024. That standard requires that we plan and perform our engagement to express a

Building a better working world

conclusion on whether anything has come to our attention that causes us to believe that the Subject Matter is not prepared, in all material respects, in accordance with the Criteria, and to issue a report.

Summary of review procedures performed

A review consists of making enquiries, primarily of persons responsible for preparing the Subject Matters and related information and applying analytical and other review procedures.

The nature, timing, and extent of the procedures selected depend on our judgement, including an assessment of the risk of material misstatement, whether due to fraud or error. The procedures we performed included, but were not limited to:

- Interviewing UniSuper staff to gain an understanding of UniSuper's reporting definitions and processes, including reporting boundaries, data sourcing, and internal data integrity checking processes.
- Assessing the documentation of UniSuper's reporting methodologies.
- Performing analytical procedures in relation to material quantitative information and where relevant, reviewing source documentation.
- Checking the accuracy of calculations performed
- Checking the presentation of the Subject Matter within the Report was consistent with supporting information and the criteria described was consistent with UniSuper's methodology.
- Obtaining representation from management on key assertions pertaining to the above.
- Conducted interviews with personnel to understand the business and reporting process.

We believe that the evidence obtained is sufficient and appropriate to provide a basis for our review conclusion.

Inherent limitations

Procedures performed in a review engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a review engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

While we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to assessing aggregation or calculation of data within IT systems.

The greenhouse gas quantification process is subject to scientific uncertainty, which arises because of incomplete scientific knowledge about the measurement of greenhouse gases. Additionally, greenhouse gas procedures are subject to estimation and measurement uncertainty resulting from the measurement and calculation processes used to quantify emissions within the bounds of existing scientific knowledge.

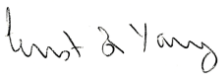
Other matters

Our report does not extend to any disclosures or assertions made by UniSuper relating to future performance plans and/or strategies disclosed in the Report.

Use of our Assurance Report

We disclaim any assumption of responsibility for any reliance on this assurance report to any persons other than management and the Directors of UniSuper, or for any purpose other than that for which it was prepared.

Our review included web-based information that was available via web links as of the date of this statement. We provide no assurance over changes to the content of this web-based information after the date of this assurance statement]



Ernst & Young
Sydney, Australia
30 October 2024

Sources

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Carbon Disclosure Project (CDP), Technical note: Relevance of Scope 3 categories by sector

Climate Action 100+ (CA100)

Climateworks Centre

Climateworks Centre, Net zero momentum tracker

Factset

Global Methane Pledge

Greenhouse Gas (GHG) Protocol, Scope 3 frequently asked questions, June 2022

Green Building Council of Australia

International Energy Agency (IEA), Electricity Information

Investor Group on Climate Change (IGCC)

International Financial Reporting Standards (IFRS)

International Sustainability Standards Board (ISSB)

Intergovernmental Panel on Climate Change (IPCC), Special Report Global Warming of 1.5°C

MSCI

Net Zero Authority

Partnership for Carbon Accounting (PCAF), The Global GHG Accounting and Reporting Standard, *December 2022*

Principles for Responsible Investment (PRI)

S&P Global Trucost

Safeguard Mechanism

Science Based Targets initiative (SBTi)

Taskforce for Climate-related Financial Disclosures (TCFD), Recommendations

United Nations, The Paris Agreement

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This Report has been prepared by UniSuper Management Pty Ltd (USM) (ABN 91 006 961 799/AFSL No 235907) on behalf of and issued by UniSuper Limited (ABN 54 006 027 121/ AFSL No 492806) as Trustee of UniSuper (the Fund) (ABN 91 385 943 850, MySuper Authorisation No. 91385943850448).

UniSuper Limited (USL) is the corporate trustee of the Fund and USM is the administrator of the Fund and provides investment services to USL.

USM is wholly owned by USL in its capacity as UniSuper's Trustee.

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